

*Studies in Research, Volume 1, 2005, pp1-11,*

## Understanding the management of doctoral studies in Australia as risk management\*

Terry Evans<sup>1</sup>  
Deakin University

Alan Lawson  
University of Queensland

Erica McWilliam Peter Taylor  
Queensland University of Technology

### ABSTRACT

This paper discusses and analyses theoretical explanations of risk and risk management in terms of the management of doctoral studies. It deals with the ways in which Government policy, together with contemporary approaches to the bureaucratisation of risk management and the development and imposition of rationalities of risk, are shaping the practices of universities concerning the selection, supervision, support and assessment of doctoral candidates. In particular, the impact of the Research Training Scheme on doctoral studies is discussed as a particular context in which the institutionalisation of risk management occurs.

### Introduction

Few academics in Australia would argue with the proposition that the work of supervising doctoral studies and the work of managing those who do the supervising is vastly different from that of a decade ago. There are a number of explanations one might give for this difference. They range from conspiracy theories about rampant managerialism in high places (and political interference in even higher places) to genuine concerns that doctoral products need to be demonstrated to be high quality and that doctoral processes need to be seen to operationalise this promise. Our interest here is neither to advocate 'best practice', nor to condemn universities for blinkered bureaucratisation. Rather, it is to consider how risk-consciousness and its organisational imperative, risk management, are implicated in the changing nature of doctoral practices in Australia, for better and worse.

We seek to show how rationalities of risk have come to require academic managers to pay attention to, and require of others, the forensic work of making doctoral education calculable. In other words, we are interested to explore the ways in which all those involved in managing doctorates need to be involved in a labour of constant self-description in order to be seen to be on guard against the potential for harm—reputational, financial, academic—that doctoral studies bring with them. In

---

<sup>1</sup> Contact  
Terry Evans  
Faculty of Education  
Deakin University  
Geelong  
[tevens@deakin.edu.au](mailto:tevens@deakin.edu.au)

\*This paper draws on work by the author as part of a team undertaking an ARC Discovery project entitled: *The Impact of Risk Management on Doctoral Research Policy and Pedagogy in Australian Universities*. The team is Erica McWilliam, Peter Taylor, Terry Evans and Alan Lawson, with Eluned Lloyd and Karen Tregenza. Some of the ideas in this paper reflect our discussions, reading and other work as part of this project.

doing so, we raise some questions about the extent to which the new accountabilities that prompt so much of the forensic work academics now do should be seen as synonymous with the responsibilities of doctoral education. Following Strathern (2000), we mount a cautious argument that the self-evident efficacy of audit does not fulfil our intellectual and social responsibility to doctoral candidate - indeed, it may distract us from that very important and time-consuming work. Our argument is not for a return to mythical grand old days when academics were allowed to get on with the 'real work' of doctoral education, but to create a space for thinking about the limits of the current high level of investment in the culture of audit, in terms of what it can deliver to academic communities.

### **Making doctorates manageable**

Managing doctoral studies in Australia has always been a complex judgemental exercise. The nature and predilections of prospective students are weighed; the needs of the university and the demands of the 'stakeholders' are balanced. After enrolment, supervisors are monitored, progress reported, resources marshalled, services deployed and, finally, examiners corralled until a Completion is obtained. In the current situation, completion is all: especially a Timely Completion<sup>2</sup>. To a degree, these steps have been often been important and even distinctive elements of the management of doctoral studies. Commonsense suggested previously that most of these elements were required in some form, but they were hitherto expressed rather less formally, embodied in good practice rather than embedded in institutional regulatory procedure. However, since late 2001, the implementation of the Research Training Scheme (RTS) in the Australian university sector has focused the minds and honed the skills of the managers of doctoral studies to these ends. These managers consist of people in positions such as deans or directors of graduate studies in universities, postgraduate program co-ordinators in departments, schools or faculties, heads of department, and also persons with research and research training management roles, such as Deputy Vice-Chancellors (Research), Associate Deans (Research) and Directors of Research. The RTS, the Research Training Management Plans, and the new quality assurance and assessment processes implemented through the Australian Universities' Quality Agency (AUQA) have had a marked effect on the attention given to the detail, documentation, monitoring and administrative surveillance of doctoral students and their experiences. The sensitivity to reputational risk is demonstrated by the extraordinary energy with which institutions have prepared for, and engaged with, their AUQA audits, the outcomes of which are published on the AUQA website and perused by journalists, commentators and others.

---

<sup>2</sup> The formulae that drive the allocation of funds from the Commonwealth Government's two largest performance-driven research block grants – the Research Training Scheme (RTS) and the Institutional Grants Scheme (IGS) – are complex. Contrary to popular belief, there is no direct reward for the Timeliness of a Completion. However, because: (a) 44% of the total Commonwealth funding for a doctoral candidate is represented by the financial return on a PhD Completion; (b) the period of funded support for a PhD 'place' has been reduced from a maximum of five years to four (FTE); and (c) the return on Completion is deferred at least two years beyond the submission of a thesis (and possibly more than two years behind the cessation of funding for the funded place), there has been a significant incentive to accelerate completions.

The RTS has increased the risks involved in doctoral education by rewarding universities whose students complete their doctoral programs on time (within four years of full-time equivalent (FTE) study) and by punishing universities whose students do not complete; students who take longer than the maximum time are unfunded for the extra period. It does this by making the number of completions a university achieves worth fifty percent in the formula for the provision of future research degree places to that university. Until the recent Review of the Knowledge and Innovation reforms, the withdrawal (or even suspension) of a RTS student caused that place to be returned to the national 'pool' of places to be re-allocated elsewhere within the national system. In these ways both the risks (the probability of a harmful event occurring) and the harms (the number of damaging events and severity of the consequent damages) were increased. Minor errors in data reporting or the inconvenient decisions of students (such as needing to take a suspension shortly before one of the bi-annual census dates) had exorbitant penalties.

The AUQA processes require universities (as part of the systemic review of all their activities) to monitor and review the doctoral experience, document its strengths and weaknesses, and to demonstrate that the latter are remedied. AUQA reviews are particularly concerned to 'close the loop' between aspiration, policy, implementation, data-collecting, review, and response-and-reform. Their focus, therefore, is on the comprehensive internal accountabilities of the university to its own stated claims and 'intentions'. The AUQA processes can be at worst innocuous, and at best beneficial, to the management of doctoral education. For example, they can encourage universities to identify weaknesses in aspects of their doctoral programs. Remedying these weaknesses reduces risks—the risk of student failure, of financial or resource losses, of reputational damage. However, exposure to AUQA scrutiny and the public reporting of the outcomes carries with it new risks of potential harms from such exposure to scrutiny. While it is true that AUQA's forensic gaze is directed at internal accountabilities, AUQA reports are public documents, available on the AUQA website, and reported at least in the higher education media. Therefore, a public 'shaming' of an aspect of institution's doctoral program is a real risk. Put simply: risk management brings its own risks; one cannot be 'outside' its logic, but to be inside means that one can be seen to have done the wrong thing. Vulnerability is thus a condition to be accepted or endured, not a problem to be overcome, and this is so despite the often deceptively positive rhetoric of risk management policy.

In some respects, the new approaches can be seen as good stewardship of public funds for doctoral education. It seems axiomatic that, if a university is publicly funded for people to undertake doctorates, then the public should expect that these doctorates are achieved with optimal efficiency, effectiveness and integrity. However, this is akin to expecting that every athlete or sportsperson supported by government funds should compete successfully (and even win) and not become injured and withdraw from competition. Doctoral education is not a race or game, but nor is it a process that inevitably leads to a doctorate being awarded.<sup>3</sup> Students, especially part-time students, have other (and often competing) legal and moral obligations (to work, family and community) in life apart from their doctorates and, occasionally, these obligations may delay or prevent completion. The transfer of

---

<sup>3</sup> To emphasise this point, one of the authors' doctoral students died before completing her PhD during the preparation of this article.

knowledge into the workplace, vocational flexibility and mobility, and the balancing family and work responsibilities often delay or prevent doctoral completions. Such obligations and considerations—which are lauded elsewhere in government policy and rhetoric—have no ‘weighting’ in the RTS formula. A senior government minister has urged Australian families to have three children, but they had better not have them while doing a PhD is the premise of the policy. A dominant motif in ministerial and bureaucratic rhetoric is that, if a student does not complete, their university (and probably their supervisor) is culpable. They should have minimised the risk of these events occurring.

### **Risk society: contemporary life in late-modernity**

In moving to adopt the rationality and forensic practices of risk management, Australian universities are mirroring a much more widespread imperative for organisations to protect themselves from reputational, financial and performative dangers. The sort of logic that underpins management of the RTS scheme appears very much akin to other aspects of risk culture in contemporary society. Beck (1992), in particular, characterises contemporary society as a ‘risk society’ or, more recently, as a ‘world risk society’ (Beck, 1999). In the latter respect, he posits that both the developed and developing nations are experiencing the consequences of the power of multinational corporations, the de-regulation of economic activities, the ‘flexibilization’ of workforces (with the attendant un(der)employment), and the loss of legitimacy of the nation-state (1999: 3). It is in this context that risk society is understood as the embedding within contemporary cultures—arguably as a feature of what might be described as global(ising) culture—the quantification of harm-probabilities, and the measures taken to manage or minimise them. Beck (1999) describes this as:

Risk is the modern approach to foresee and control the future consequences of human action, the various unintended consequences of radicalised modernization. It is an (institutionalised) attempt, a cognitive map, to colonize the future. Every society has, of course, experienced dangers. But the risk regime is the function of a new order: it is not national, but global (pp. 3–4).

It is important to recognise that this is not fundamentally a rational process—although it is certainly often rationalist in its rhetoric—of quantifying the risks and the severity of harms, and then dealing with them in relation to their probabilities of particular severities of events occurring. Rather, as Bauman’s investigations (1998, 2000) have shown, there are considerable social and political forces at work to shape people’s understandings and anxieties about particular risks, and to effectively bring about their maximisation or minimisation where it serves (often global) political and/or economic interests so to do.

For example, the risks associated with tobacco smoking (of respiratory and cardiovascular disease) or the use of motor vehicles (injuries and deaths from collisions, environmental damage from vehicle manufacture and exhaust emissions) have been subjected to scientific claim and counter-claim for several decades between economic stakeholders and their political apparatchiks. If a world risk society were based on rational processes democratically (fairly, equitably?) applied, then maybe both tobacco and motor vehicles would occupy rather different

(lesser?) positions within our lives. Arguably, work itself would be differently configured if rational processes were fairly and equitably applied. The harms of over-employment (excessive hours of work, stress, lack of parenting for children) to the health and well-being of workers and their families would require that over-employment cease; likewise the harms of un(der)-employment (poverty, low self-esteem, malnutrition etc) would require that this also be eliminated. Logically, the solution (reduce work hours) to the former seems to be the corollary (increase work hours) of the latter. However, the flexibilisation of labour does not usually allow the flow of work from the over-employed (usually in professional and managerial positions) to the un(der)-employed (usually in low skill, casual or contract positions).

Similarly, it can be argued, as both Giddens and Beck do, that uncertainties (and risk) are 'manufactured' by the industries and institutions that respond to what Giddens calls the 'energising principle' of risk and uncertainty. The challenge to find and commercialise new products, for example, is energised by various 'entrepreneurial' risks and opportunities associated with making a successful product that will turn a profit. (As is argued below, such an energising effect can be found in the conduct of research and doctoral studies.) However, each new product or service can be seen to produce its own (often unknown or unintended) consequences in terms of future risks and harms, and new opportunities. Therefore, the furtherance of economic and social development can be understood in terms of the pursuit of tradeable benefits that contain within them consequences and risks, which future developments will be produced to fix for some other tradeable benefit, and so forth. This description conveys a degree of linearity that is somewhat misleading in that there is a considerable number of these processes underway at any one time, and the interactive effects between them can lead to chaotic and unpredictable consequences that are characteristic of late modernity. (Beck (1999, p. 8), for example, sees the Chernobyl nuclear reactor meltdown and the associated consequences in these terms.) The significance here is that this chaos or uncertainty is a fertile ground for research and doctoral studies as researchers and their sponsors seek to find solutions or benefits to the ever-changing array of risks. Indeed, uncertainty and risk are essential preconditions for research.

Within the fluidity and uncertainty of late-modernity resides a plethora of 'rationalised' processes trying to manage its various aspects. Arguably, nowhere is this more problematic than in the area of risk management and risk minimisation. Although risk management and risk minimisation are portrayed as rational managerial practices, they are produced by social, political and economic conditions that value particular risks being assessed and managed and others ignored. These practices are also deployed where the predictability and manageability of risks is difficult at best, if not impossible. For example, what risk management system could have predicted Severe Acute Respiratory Syndrome (SARS)? Once SARS was evident, there were many attempts to minimise the risks of it spreading. At one level these may well have been successful. For example, the health workers involved in the care of SARS patients were vulnerable to infection (some were infected and died), but once strict infection control measures were in place the risk to health workers was reduced. However, controlling the spread of SARS was a much more uncertain process. People were unsure of exactly how it could be transmitted and to whom. Perhaps worst of all, the chaotic nature of human contact and movement was such that within twenty-four hours it was possible that someone or some people almost anywhere on the globe could be at

risk. It is debatable whether SARS was controlled by the risk management practices deployed, or by the nature and life-cycle characteristics of the corona virus itself. It is probable that both played their parts, but that the risk management practices (mass body temperature measurements, for example), some of which remain in place today, are those that we are culturally disposed to favour. It seems better to trust the science and the rationality of the processes, rather than the unpredictability of the unknowable and unseeable corona virus.

This disposition toward the rational management of indeterminable risks can be identified in many aspects of society, even in the area of the management of doctoral education to which we now turn.

### **Doctoral research as risk and danger**

Scientific research, as we currently understand it, can be seen as a fundamental derivative of the Enlightenment-modernist period. The rise of positivism and its forms of science is grounded in a pursuit of truth, certainty and predictability. Although this mission still prevails in some quarters, there is at least a greater sense that we know more now about what we do not know, than might have been the case (hope) in the middle of the 20<sup>th</sup> Century. If nothing else, the emergence of theories of postmodernity from Lyotard (1985) onwards (for example, Bauman, 2000; Bauman & Tester 2001), have disturbed the certainties in many fields of scholarship, including the natural and physical sciences (Heisenberg, Popper, et al). A feature of university life in the developed world from the mid-20<sup>th</sup> Century is the emergence of doctoral studies as 'research training'. (See Evans, Macauley, Pearson & Tregenza, 2003; Evans & Tregenza, 2004; Rae, 2002). This coincided with a time when research was placed as a central, defining characteristic of 'the' university as an educational institution. Therefore, research and doctoral education were important related elements of the rise of the modern university in the 20<sup>th</sup> Century to the extent that, nowadays, the most prestigious universities (almost?) invariably have strong and powerful research profiles in terms of research projects, funding, publications and programs of doctoral study.

More recently research and doctoral studies have emerged as risky areas of university practice, as argued earlier. In another paper (McWilliam, Lawson, Evans & Taylor in press) we explore the risks posed to universities by the 'scandals' that emerge around the research processes (laboratory accidents, contestable animal experiments, plagiarism, financial lapses etc). Whilst these sorts of risks are evident in doctoral studies, doctoral candidates face some particular risks that are associated with the choices they make during their research and its communication; choices they expect to reward them with their doctorate: failure being an unbearable consequence.

A doctoral candidate is expected to demonstrate that they have conducted an appropriate piece of research on a topic about which their scholarship has made a 'significant original contribution' to our knowledge. In this sense, a doctoral candidate typically has a lot more invested in their doctorate than a university staff member has invested a research project. The risk for the doctoral candidate is not just that their research may not produce worthwhile findings—something that is a risk with any research—but that, if they do produce worthwhile findings, they will be 'gazumped' by another researcher producing the same or similar results and

publishing them before their thesis is examined. There is also the risk that their findings may not be seen as significant and original by their examiners. In many respects, some might think that the risks of 'failure' are too great. However, evidence from Kiley and Mullins (2002) and Holbrook, Bourke, Lovat and Dally (2005) indicates that very few candidates fail their PhDs at examination<sup>4</sup> (as distinct from withdrawing – or having their candidature terminated – before a thesis is completed or submitted) and that examiners generally empathise with the risks and problems associated with doctoral candidature and fully apprehend the profound consequences of failure. For these reasons, and because the doctoral examination is a formative process rather than a summative event, examiners are inclined to recommend revisions that will lead to a pass being achieved. Doctoral examination, then, is a less risky process than is often feared by candidates. In reality, the risks are much greater during their candidature and it is here that the supervisor – and an increasing number of others – can be cast in the role of the risk manager and/or risk minimiser.

The doctoral requirement for the candidate to produce a significant and original piece of work is often intensively risk-managed by both the supervisor and the organisation. Behind each supervisor is an increasingly complex research management safety net of reports, surveys, monitoring, confirmation processes, appraisals, and exit seminars and statements. These are themselves increasingly buttressed and scrutinised by means of institutional collection and reporting of research higher degree student, supervisor, and department performance data. This is increasingly the case in the light of the performance monitoring (and associated rewards and punishments) imposed upon universities by government that was discussed earlier in this paper. The supervisor typically ensures (or at least, assures) that their candidate is pursuing a potentially worthwhile topic in a manner that is methodologically sound; that is, they are almost assured of making a significant and original contribution to knowledge if they undertake all the work required in an appropriate manner. Supervision panels, advisory teams, research mentors, and departmental candidature review committees now commonly share this risk. The 'risk' posed by excessive risk management is risk aversion or even the attempt to avoid risk altogether. And it is the increasingly fine-grained nature of the data that we collect that brings this about. The more calculable the risk becomes at the level of the individual – candidate, class of candidate, supervisor, sub-discipline, research paradigm, or department – the more likely it is that attempts will be made to mitigate or to prevent it. An institution with 2000 research students may be content to adopt a portfolio approach, to define for itself an 'acceptable' level of risk that accommodates a 20% discontinuation ('attrition') rate; a School with 50 students, a supervisor with 5 will find that intolerable.

However, even a passing understanding of the sociology, politics and philosophy of science (for example, the work of Kuhn, 1970; Mulkay 1970; Schon, 1969) indicates that the most significant and original ideas can be those most likely to challenge the *status quo* or the scholarly paradigm within which they are examined. The risk of rejection is thus profoundly greater where such ideas are being argued in a doctoral thesis than if the research was making a more modest—albeit, significant and original—contribution within the paradigmatic and ideological orthodoxies of the field in question. In this sense, the 'best' doctoral research is likely to be much

riskier than more modest research. It is also more likely to consume more time and effort as the candidate has to manage the greater risks and work with less well-supported ideas and methods. In this respect, the more intensively risk-managed contemporary doctoral environment is likely to eschew riskier, 'paradigm-shifting' doctoral research. It does so on the basis that it is not worth the threefold risks of: consuming more than the funded candidature; of having a candidate who fails to complete; or of being failed at examination. All three of these risks are calculable and therefore expressible in quite precise financial terms by the institution and this makes the contemporary risk much greater than those associated with previous systems of government (and institutional) regulation. The first risk—exceeding funded candidature—requires the university to be able to shift scarce (and therefore contested) resources to support the continuation of the “risky” candidature; the second—failing to complete results in the loss of a funded place, the waste of resources already invested in research costs, and the reward of a completion; the third—failing at examination—results in the loss of the financial reward of a completion. On the other hand, the ‘academic’ risk is that gradually science and scholarship loses *incalculable* benefits: because they are losses that cannot be counted in the risk management formulae of contemporary bureaucratic government.

In other respects, too, doctoral research is being increasingly perceived as a risky activity that needs to be managed. The strictures of animal and human ethics committees have been in evidence for some years and, in some areas of research, the ‘occupational health and safety’ measures required have been a matter of common practice, too. However, in some universities, all doctoral research projects are now subjected to risk assessments even in fields where the risks of undertaking the research are no greater than those of everyday life (such as a doctoral student driving to a school to interview a teacher for doctoral research, as compared to the same person as a parent undertaking similar actions in order to discuss their child’s progress). Likewise, universities now concern themselves with ‘managing’ the rights of the candidate (and others) to intellectual property in their thesis because of their concerns for the risks of competing claims and lost potential revenue. They also manage the risks of inappropriate or inadequate supervision by instituting rules, registers, appraisals, progress reviews, etc. Ultimately, however, the risk management undertaken by institutions of research higher degrees assumes the regulation of a personal relationship, the purpose of which is to produce a unique thesis with original findings. In such circumstances, it is possible to recognise risk management of doctoral candidatures as a limit case that perturbs the assumptions of risk management. It also demands that we ask what the negative consequences might be of (unduly invasive) risk management.

### **The individualisation of doctoral students’ risk and danger**

As the works of Bauman (1998, 2001), Beck (1992, 1999) and Giddens (1991a, b) illustrate, within societies or communities exposed to the forces of contemporary globalisation, there is a propensity for shifting the responsibilities for risks to individuals. Beck, in particular, makes a strong argument that ‘individualisation’ is central feature of globalisation. It assumes that, whether in consumer markets or in human services, individuals are expected to make choices and accept the consequences for themselves. In this vein, risk management requires informing individuals of the risks to which they expose themselves *when* they exercise

choices. There is no choice not to make choices, hence the emphasis on *when*. That is, to participate in contemporary late-modern societies, choices must be made; whether they are trivial phone button or mouse-click choices to connect to a particular financial or other service; or whether they are signatures on workplace employment contracts, surgical authorisations, or doctoral candidature agreements. The new world requires the individual to be informed (even if it is through pages of online banking agreements, or volumes of doctoral regulations, procedures and codes of practice), and then to choose to accept. In the moment of acceptance, the individual assumes much of the risk, as does the doctoral candidate by signing their candidature agreement, ethics forms etc.

Notwithstanding the argument in the previous section about the institutional and supervisory forms of risk management and risk minimisation that are deployed, a good part of the risk management of doctoral studies, especially nowadays, concerns the individualisation of the risks; that is, shifting some of the risks to the candidate. This shifting can be seen to have occurred soon after the first PhDs were awarded in Australia. Some current research by Evans and Tregenza (2004) into early Australian PhDs shows that the first PhDs in Australia did not include the typical 'signed declaration page' but that it became commonplace by the late 1950s. In essence, this declaration is a quasi-legal assurance that the candidate has done the work represented in the thesis, unless acknowledgement of others' work is made, and that they have not used the work represented as original in the thesis for another award. This is an early sign of a trend in the research training process in Australia whereby the candidate is expected to knowingly declare, in writing, that they are aware of their individual responsibilities within the research process and community into which they are being inducted. As claims of plagiarism, fraud and ethical misconduct can produce much damage to the reputation, operation and funding of universities (see McWilliam & Lawson, 2004; McWilliam, Lawson, Evans & Taylor, 2005) the intention is partly to ensure the candidate knows the risks to themselves (disciplinary action, which may include exclusion, failure or the removal of an awarded doctorate), but also to ensure that the responsibility for a particular action is individualised rather than institutionalised.

In order to achieve the individualisation of risk, universities spend increasing amounts of time and other resources bureaucratising the risk management and risk minimisation processes in doctoral education. Universities produce written documents for candidates, some of which the candidates are required to sign to say they have read, understood and accepted. These and other documents are also provided on websites, sometimes with the advice that the candidate is responsible for checking the latest information and requirements on such websites. Candidates are routinely asked to sign progress reports on their candidature, laboratory workbooks, ethics applications and reports, library copying declarations, etc. Each step can be seen as an attempt by universities to minimise the risk by individualising the responsibility to the candidate. This is neither wrong nor unreasonable, but it is important to understand that such individualisation can be viewed in terms of the change to a global risk society. For example, it is important that a candidate understands the ethical implications of their research and conducts their research ethically. However, the bureaucratisation of the ethics clearance process can be seen to lead to checklist conformity, and to shifting much of the responsibility for the ethical conduct of the research to the candidate, although they are precisely that: a candidate. That is, the institution actually is legally responsible

for the ethical conduct of all research conducted by its staff and students. This responsibility is less easily individualised to candidates than are others (data fraud or plagiarism, for example). Therefore, typically the supervisor is a signatory to ethics applications by their candidates and to annual reports etc.

By pressing the responsibility for the withdrawals by individuals from doctoral courses onto their universities, and by creating a funding formula that recognises only doctoral completions (as the doctoral factor in the formula); the new funding/regulatory environment forces universities to adopt risk minimisation approaches. In so doing, they often fall into approaches that are naïvely scientific and assume that contemporary demographic characteristics can be identified and measured in ways that can produce reliable predictors of success in doctoral programs. Therefore, they may seek to recruit the types of students whose characteristics correlate with completion or withdrawal. However, across a sufficiently large population of students, the reliability of these demographic and disciplinary factors as predictors of non-completion is relatively weak (see King, M 2002).

### Conclusion

The policy directions of governments around both research and doctoral education in the past few years can be seen as indicative of what Beck (1999) describes as a world risk society. The desire to measure the harms and benefits (quality) of both research and doctoral education (as research training) can be seen as somewhat naïvely scientific and rooted in a modernist view of the measurability and predictability of human and social behaviour. In fact, research and doctoral education, especially, are about uncovering the unknown and finding the original and significant. Therefore, they are highly elusive in their potential and outcomes, and defy measurability. Indeed, attempts to measure and predict are likely to reduce the potential of significant, paradigm shifting, originality because people are encouraged to take 'outcome insurance' by keeping to safe territory where more new knowledge can be produced by taking less risky steps, rather than by larger strides.

The real problem for universities is whether they have taken stock of the impact of risk management and risk minimisation strategies on the conduct of research and doctoral studies. In effect, the risks involved in the deployment of what might be described as conventional modernist practices are that the research and research training processes will become inured against creativity and innovation.

### REFERENCES

- Bauman, Z. (1998). *Globalization: the human consequences*. Cambridge, Polity Press.
- Bauman, Z. (2000). *Liquid Modernity*. Cambridge, Polity Press.
- Bauman, Z. (2001). *Community: seeking safety in an insecure world*. Cambridge, Polity Press.
- Bauman, Z. and K. Tester (2001). *Conversations with Zygmunt Bauman*. Cambridge, Polity Press.
- Beck, U. (1992). *Risk Society: towards a new modernity*. London, Sage.

- Beck, U. (1999). *World Risk Society*. Cambridge, Polity Press.
- Beck, U. & E. Beck-Gernsheim (2002). *Individualization: institutionalized individualism and its social and political consequences*. London, Sage.
- Evans, T D 2005 Risky doctorates: managing doctoral studies in Australia as managing risk. Proceedings of the *Australian Association for Research in Education Conference*, University of Melbourne, November 2004.  
<http://www.aare.edu.au/04pap/alpha04.htm> code EVA0426
- Giddens, A. (1991a). *The Consequences of Modernity*. Cambridge, Polity Press.
- Giddens, A. (1991b). *Modernity and Self-Identity: self and society in the late modern age*. Cambridge, Polity Press.
- Giddens, A. & C. Pierson (1998). *Conversations with Anthony Giddens: making sense of modernity*. Cambridge, Polity Press.
- Holbrook, A, Bourke, S, Lovat, T & Dally, K 2005 An investigation of inconsistencies in PhD examination decisions. Proceedings of the *Australian Association for Research in Education Conference*, University of Melbourne, November 2004.  
<http://www.aare.edu.au/04pap/alpha04.htm> code HOL04678
- Kiley, M. and G. Mullins (2002). It's a PhD, not a Nobel Prize: How experienced examiners assess research theses. *Studies in Higher Education* 27(4): 369–386.
- King, M 2002 A statistical comparison of the completions of research higher degree scholarship holders. In Kiley, M & Mullins, G (eds) *Quality in Postgraduate Research Integrating Perspectives*. Canberra, CELTS, University of Canberra  
<http://qpr.edu.au/cgi-bin/htsearch>
- Kuhn, T. S. (1970) *The Structure of Scientific Revolutions*. Second Edition, Chicago, University of Chicago Press.
- Liotard, J. (1985). *The Post-Modern Condition*. Minneapolis, University of Minnesota Press.
- McWilliam, E, & Lawson A (2004). Silly Doctorates. A paper presented to the AARE conference, Melbourne
- McWilliam, E., Lawson A., Evans T. D. & Taylor P. Silly, Soft and Otherwise Suspect: Doctoral education as risky business. *Australian Journal of Education*. 49, 2 pp 214–227
- Mulkay, M. J. (1970). *The Sociology of Science*. London, Methuen.
- Rae, I D (2002) False start for the PhD in Australia. *Historical Records of Australian Science*, 14, pp 129–130
- Schön, D. (1969) *Beyond the Stable State*. Harmondsworth, Pelican.
- Strathern, M. (2000) The Tyranny of Transparency. *British Educational Research Journal*, 26, (3), 310-323.