

Introduction

Before Zhang Hong Jie's murderer slipped out of Minamurra flats into the mid-winter Canberra cold, he rolled her body in rugs and doused it with insecticide and perfume. Over the coming weeks and months, the twenty-three old Zhang Long performed a cunning ruse. Using the email account of his victim, known as 'Steffi', he kept in contact with her parents and her cousins, maintaining a perfectly credible virtual presence. For all Steffi's family and friends in China knew she was still attending tutorials and lectures at the University of Canberra. It took nearly eight months before the stench overwhelmed neighbours and they contacted police, by which time Zhang had long fled back to his home province in China. Police used DNA sampling to identify the body and then the international ordeal began. The killer was tracked down and he confessed, but the Australian authorities refused to cooperate in the conviction unless given an assurance that the death penalty would not apply. The victim's parents called for justice, and there were allegations that Zhang's lawyers sought to settle out of court. The inquiries and diplomatic wrangling continued over years, complicated by the lack of an extradition treaty between Australia and China. Police had quickly dismissed conspiracy. Zhang was no spy. Steffi was not part of Falun Gong. The forensic results show that this was a domestic brawl gone wrong.¹

The real mystery remaining, long after the murder, was why Steffi's disappearance was not noticed much earlier? Steffi died at the end of semester, mid 2004. When the new semester began a new centralised computer system was being bedded down. The Higher Education Information Management System (discussed in Case Study 2, Sect. D) was supposed to automatically notify immigration officials when a foreign student failed to enrol, thereby alerting them to any possible visa breach. But there was a system glitch and Steffi's absence went unrecorded and her failure to appear went unnoticed. The University was reprimanded, and told to monitor classes for a semester, but was otherwise praised by the department for its 'excellent compliance system' (UC 2005). Initially, the University was contrite about

¹ This account is compiled from official sources (AFP, 2005; Stanhope 2006) and news summaries (Sina.com.cn 2005, online; Armitage 2005, online). The ACT Attorney General's Office (Corbell 2008) confirmed in early 2008 that China would not be seeking the death penalty in the event of a successful conviction against Zhang Long.

the incident, especially given the long-running controversy over universities being used as a 'back door' to Australia (Case Study 1, 164). After the fault was tracked down to computer error, the University's international office made it clear that any suggestion, in the media or otherwise, that the University was not taking care of its international students, could lead to legal action (UC 2005). Clearly, the University had its reputation to protect.

These events unfolded as this thesis was in a formative stage. The death and the surrounding circumstances, outlined below, figured in the reasoning that prompted, steered and gave a human dimension to this inquiry from that point. However, only with hindsight was the metaphorical significance of this killing fully apparent. When the Australian Universities Quality Agency (AUQA) reported its audit on the University of Canberra in the middle of 2003, exactly one year before the murder, the University was commended for its care and support for all of its students, both local and international, and was encouraged to pursue its 'tactical plan' to increase international enrolments – already 900 onshore and 500 offshore – by 100 percent over the coming years. Complaints and concerns raised by international students that reached the audit panel, including the lack of responsiveness at the international service desk, were mentioned in the report, but did not substantially influence the findings. The audit panel merely spoke of 'ensuring adequate resources' were available to meet projections in demand (AUQA 2003, 7-9). At one level, this episode points to a problem discussed in the literature, about the way in which quality audits are framed and conducted in Australia; to primarily reassure overseas customers, and therefore serve the demands of marketing (Vidovich 2002, 405), rather than genuinely seeking to protect students' interests.

This hypothesis is supported by the continual appearance of reports of the isolation, loneliness and increasing despair experienced by foreign students (Deumert et al 2005; Sawir et al forthcoming). Furthermore, the anomaly between what audits reveal and the daily experience of foreign students can be partly explained by the 'rituals of verification' thesis, whereby the audit process becomes more important than the actuality (Power 1997). This is a feature of the massive growth in the 'grey science' of numbers, and the use of 'controlling technologies' to insist on regulatory compliance (Rose 1999, 43-60) which is not confined to higher education. However,

there is some irony in the fact that the bureaucratisation of social science is having the most crippling impact on the university, helping to chew away at its moral core and enfeebling it as an ethical community. Herein may also lie some of the keys to unravelling the complex relationships that have grown up between the university and the state.

Deep chasms exist between academic notions of the value of knowledge and the drivers and principles of higher education policy. Bridging these is one of the general aims of this thesis. The proposition to be advanced is that these differences, at least in part, relate to flawed conceptions about the way in which politics, and to some extent also political theory, view the role and purpose of higher learning. The argument developed and tested throughout this thesis is that supporting the art and science of citizenship, expressed variously within civil society or by individuals in power, is both the primary goal and pragmatic function of higher learning. The central idea grows out of what can be observed through history to be the political role and function of the academy, which clearly suggests a vocational purpose, but one with noble goals. However, it is necessary to reconcile this idea with the deep abiding notion that higher knowledge requires absolute detachment. This difference remains an ongoing source of conflict within the academy. The idea of knowledge as its own end was rehearsed in Newman's oft-quoted *The Idea of the University*, (1976 [1852] Part 1, Discourse 5) but found its clearest expression within the German university model, created by Wilhelm (Baron) von Humboldt (Chapter II, 81). In more recent times, these sentiments were conveyed by Oakeshott's treatise *The Voice of Liberal Learning* (1989)¹ which expresses dismay at the presence of professional training in the university curriculum, arguing that the 'great and characteristic gift of the university was the gift of an interval; putting aside of routine, a break from the tyrannical course of irreparable events to look round upon the world without a sense of an enemy, or pressure to make up one's mind'. The university offered the opportunity to cultivate the 'highest and most easily destroyed of human capacities', what Keats called negative capability when a man was capable of being in uncertainties, doubts, without irritably racing after fact and reason, an opportunity to

² This is a collection of essays written from 1949 onwards but not published until 1989.

practice suspended judgement which the ‘neutrality of liberalism is so pale a shadow’ (1989: 127).

Driving Oakeshott’s lament was a desire to preserve the sanctity of detached human judgement, unfettered by mundane and irrelevant detail, and achieved by an ability to converse intelligently, and to reflect deeply on the human condition. His sentiments speak to university traditions, clearly articulating the spirit of higher learning in an idealised form. Many scholars and scientists subscribe to these ideals, as part of a noble tradition, though the thinking behind them may be out of fashion. However, there is no longer in evidence a coherent set of illuminating ideas to replace them. Perhaps these traditions need to be rethought and the assumptions revised. In this regard, this thesis examines the function of higher learning within a pragmatic perspective, with the aim of developing a revised theoretical conception of the role of the university, as set out below (*Aims & Methods*). The aim is to articulate a reconsidered, coherent explanation of the role of higher learning, and to do what Amaral and Magalhães suggest is needed: to make an entirely ‘new case’ for the university, rather than offering a ‘restatement of the former’ (2003, 252). The argument here is that building a new case requires nothing less than amending society’s broad attitude towards – and comprehension of – science and scholarship.

Research Appraisal

A clear idea of the nature of the university’s relationship to the state is essential to understanding the role and purpose of the institution. As a disciplinary concern, this falls primarily within a large and expanding body of higher education policy literature. It will be useful, therefore, to critically examine this work, and the core assumptions upon which it relies, in order to contrast these with a second related area of disciplinary inquiry into conceptions of the state and notions of state power. Moreover, it will be of some value to consider how well the analytical problems in these two areas can be informed by trends in thinking in a third related area, concerned with conceptions of human knowledge and political power. It should be noted, however, that while it may be useful to consider the dominant ideas and key trends in this third area, it is clearly not possible within the scope of this thesis to

delve deeply into all aspects of these debates. The aim, therefore, is to consider the outcomes of this work where they are relevant to policy debate and political theory.

A major focus of policy research and debate is the way in which the traditions of the academy are endangered by ‘academic capitalism’. This is most evident in liberal economies, including Australia, the United Kingdom (UK) and the United States (US), where allocation decisions within higher education are increasingly driven by the market, threatening to transform academics into ‘state-subsidized entrepreneurs’ (Slaughter & Leslie 1997, 9). These concerns are spreading as the market model is embraced as a global standard, in spite of the apparent conflicts with notions of collegiality and the values of academia. Preserving these traditions is usually less important to governments than confronting the pressures of international economic competition. However, the policy community was deeply complicit in this trend, having helped to establish the US system as a model to which policymakers could easily refer to when designing and justifying their market-based reforms.

The most influential theoretical advance in comparative higher education policy is Burton Clark’s 1983, *The Higher Education System: Academic Organization in Cross-National Perspective*. This set down the general principles of state-university relations arguing that higher education systems exist within a trilateral set of forces: between the market, the state and the academic or professional oligarchy. An argument deriving from this is that because higher education represents a tension between social, market and political influences, the centralisation of power needs to be avoided in favour of a division of power, best achieved in a federal system (Clark 1983, 265). This prescription arises from the idea that the centralisation of power draws a system out of balance, into disequilibrium. Balance could be achieved by having the necessary expertise and administrative capability that corresponds with specialist knowledge and skill within the academy. Implicit therefore is the need for the state to possess an adequate level of policy capability. A stable system is diverse in its structure and pluralistic in decision-making, and preferably contains suitable buffers, the ideal being the former British University Grants Commission. Also, under this scheme of things, the optimal higher education system was in the US, being the most diverse and most market-oriented. Paradoxically, it is also one in which federal higher education policy is relatively weak. It has no central ministry responsible for

academic matters. At most, the federal government is concerned with accountability for funding and coordinating state-based accreditation (Dill 2001, 81-95).

Clark's framework made it possible to chart the changes occurring in the more centralised, or unitary systems, compared to the more market based. Sweden represents one of the most unified systems, located at one end of the spectrum, which then moves to France, Britain, Canada, Japan and the US at the other end (Clark 1983, 138). With this as a foundation, a detailed comparative picture of state-university relations has emerged as a result of a series of major international studies (Neave & van Vught, 1991; Goedegebuure et al, 1994a; Henkel & Little, 1999) extended by more thematic studies (Enders & Fulton; 2001; Meek et al, 1996a; Kogan & Hanney, 2000; Amaral, Jones & Karseth, 2002; Bleiklie & Henkel, 2005). The approach has also been revised to take into account the overall shift in higher education towards declining autonomy and greater market control (Becher & Kogan 1992), including the deleterious impacts this has had on the standing of the academic profession (Altbach 1980, 2003; Clark 1987; Halsey 1992;). Since the mid 1980s, therefore, a great deal of evidence has accumulated to support the claims made by Clark. However, much of the literature forms loose collections of area studies, rather than well-structured analyses that might help to challenge Clark's core assumptions and prompt a revision in the dominant theoretical outlook. Nonetheless, the empirical findings from this corpus reveal how different systems respond to policy initiatives, how these have led to restructuring within institutions, and particularly how this has redefined the role of university leaders, and academics in general. It provides national system profiles and management structures, gauges the impacts of globalisation, tracks trends in convergence and diversity at all levels, and monitors impacts of changing government control mechanisms, all of which provides an invaluable empirical resource that will be drawn upon in various ways in the course of this thesis.

The criticism that can be made of the theoretical approach is that what it offers in breadth and utility it lacks in depth, elegance and substance. This may partly relate to the flawed assumptions that it contains, particularly in respect to the way it views the market with relative neutrality. Moreover, its continued validity is questionable in the face of the global transformational changes underway. It has been suggested that the parameters of analysis need to be radically extended to reflect the powerful two-

way stretch occurring – in addition to national factors – towards local and global engagement. This has prompted a revised ‘heuristic’, emphasising the simultaneous impact of ‘global, national, and local dimensions and forces’ in what is awkwardly described as a ‘glonocal agency’ (Marginson & Rhoades 2002, 282). This competes with, and roughly corresponds to, a four-level approach – institutional, local, national and international – advanced by Turpin, Iredale and Crinnion (2002). The point of these is the growing need to examine, in depth, the types and patterns of influence that can be observed at the local and institutional level resulting from global trends.

A key observation is that reforms invariably have converse impacts across the spectrum of nation types. For instance, reforms in the US designed to bring an already diffuse and disorderly system under control had centralising tendencies, while reforms in more centrally organised, unitary systems, such as France, fostered decentralisation (Clark 1983, 145-50). In general, reforms brought the greatest reward to administrators, due to the ‘steadiness and continuity of administrative entities’ (Clark 1983, 157). This also meant that institutional leaders were further empowered:

Observations of systems both Western and further East suggest that wherever systems either centralise or decentralise, authority at the head of the institutions is strengthened. It seems as if systems need a minimum of authority at one level or another if they are to hold together disparate concerns and priorities. Whatever space central government or the collegium yields is occupied by the rectorates. (Kogan 1999, 265)

These findings were accompanied by increased research into university leadership, especially the role of the chief executive (Bargh et al 2000; Smith et al 1999; Trow 1985; McClenaghan 2006) including the shift towards a more presidential style (Kogan 1999, 276; Sloper 1985; Sloper 1996), which is most pronounced in Australia (Marginson & Considine 2000, 62; Reed 2002, 175). This coincided with the sudden rise of a corporate managerial culture, causing some internal dissatisfaction and dislocation (Meek & Wood 1997). The immediate impact of reform was, in many respects, less disruptive in the US because market conditions, strong executive leadership and a high degree of entrepreneurialism have long featured in that system. Instead, what has been noted there is the steady transformation in the politics of higher education (McLendon & Hearn 2003) as pressure group activity in this area has moved into the mainstream. Evidence of this same phenomenon can also be found in Australia (Case Study 3).

In Continental Europe, these global trends were tempered by virtue of very different political settings. For instance, measures to strengthen executive leadership met a different response, most noticeable when comparing Norway and Sweden to Britain. In Scandinavia, university heads were much less welcoming of their extra powers, as they were also perhaps less well prepared (Bleiklie 2005, 203). Compared to universities in Australia and Britain, which traditionally enjoyed a relatively large measure of autonomy that centred decision-making power on the executive, Continental institutions displayed higher levels of interaction between the civil authorities and the professional heads of disciplines. It was often the case that negotiations bypassed the institutional executive altogether. As a natural corollary to this, at least in the past, state policymaking structures often reflected disciplinary features, rather than a central coordinating capability. This was evident in France, where it was possible to talk about the ‘denial’ of the existence of universities, as nowhere in the ministry was the university considered a complete entity, in turn creating a near complete vacuum of policy knowledge. Resource allocation and training was discipline based; university budgets represented no more than a sum of resources allocated to each curriculum area (Musselin 1999, 45-6). Criticism of the French ‘Napoleonic’ system being overly centralised, even ‘despotic’ has been revised in recent decades, considering the high level of influence retained by the professoriate over academic matters, appointments and curricula, though, this may not compensate for the immense control the state holds in awarding the national diploma (Bourricard 1982, 33; Kaiser & Neave 1994, 117-8). France’s experience suggests that pre-existing conditions and arrangements create a dependent pathway for reform within a national policy style. Moreover, these observations support the proposition that the state and the university do not simply interact, but tend to influence and ‘shape’ one another. This is clearly evident within tightly configured corporate systems.

When speaking of the Continental ‘model’ it is important to note that this is far from uniform; great variability reflects the different routes followed towards nation building (Neave 2001). In Germany the office of the *Hochschulreferent* provided an intermediary function linking universities with the ministry. This facilitated a smoother shift – if only at a fairly superficial level – to a more

‘presidential’ mode of executive control, bringing together the financial and academic leadership of the rectors, in the US style. At the same time, the executive remained within the Continental civil service model, as ultimate authority remained with the state, along with a large measure of negotiating power by the professoriate, particularly over academic programs and appointments (Frackmann & de Weert 1994, 142-4). This structure is a legacy of modern German history, in that, the system to emerge in the post-war period responded to the politicisation of the academy under the Nazis. This prompted a concerted effort to revive fully traditional academic rights and freedoms, and this led to the professoriate dictating the terms and conditions – to what at the time was an enfeebled state – for the funding of the expansion of the older university system. This greatly consolidated the power of the professoriate over the rectors, creating a classic instance of the ‘spirit of collegiality working against individual initiative’ (Hennis 1982, 3-10). This also left the German system ripe for reform as it began to fail in its task of meeting the basic demands of a democratic industrial society (Hennis 1982, 28).

The once ‘caring states’ of Finland, Norway and Sweden have also undergone systematic reform, bringing greater deregulation and marketisation of higher education, along with the creation of buffer organisations and a shift towards resource allocation through the incentives based ‘output model’ (Musselin 2005, 72-4). The Netherlands in particular attracts great interest, having undergone the same kind of transformation as others, but with a much greater degree of regulatory change and policy innovation that has radically reshaped the higher education sector’s relations with the state (Daalder 1982, 184; Goedegebuure et al 1994b, 21; Huisman 1996, 152; de Boer & Goedegebuure 2007). These experiences highlight alternative pathways to reform, other than through the slavish imposition of market discipline. The question is how much of this depends upon the pre-existing conditions, including higher education being part of the corporate state?

Much of the empirical evidence within higher education policy research supports the hypothesis that responses to reform pressures are often system-related or ‘path dependent’, and this idea is paradigmatic. The key explanation provided is that this relates to the ‘terms of political settlement’ that represent ‘legitimate concerns, interests, their expression and their aggregation across different levels of

administration which bind a nation together' (Neave 2001, 3). In Continental systems, where the professoriate often held great sway, and particularly where there was also a lack of policy capacity, reform processes proved to be much more gradual, and some would argue therefore much less fruitful. In France, particularly in the initial phases, the process was fragmentary and halting but at the same time less directive, and to a degree more consensual. This was particularly so in Finland where reform proceeded by way of dialogue. As institutions were given greater autonomy, it has been found that this also generated diversity (Kivinen & Rinne 1996, 102-3). This scenario is more common across Europe where 'mutuality' in decision-making is more apparent (Scott & Hood 2004, 82). This stands in sharp contrast to reforms in the UK and Australia where the process has been swift, transformational and sometimes appearing to be brutal (Musselin 2005, 74).

Within higher education policy analysis, the different manner in which states embrace reform, it has been argued, grows out of the differences in 'national styles', such as exist between the Anglo-Saxon and Roman types. The Roman represents the centralised model of government with national elements being brought into the fold by the codification of law, compared to the Anglo-Saxon model in which nationhood related much more to the 'sum of the parts', and this attaches less importance to the uniformity of institutions for the expression of a common identity (Neave 2001, 38-43). The national styles methodology has been used, and shown to be relevant in various contexts apart from higher education, to explain how contrasting state systems tend to generate different policy approaches (Vogel 1986; Jasanoff 1986, 1991), and its use in higher education policy represents a disciplinary adaptation.

Significantly, the idea that national policy styles are important in explaining the observed differences in policy approach in higher education was rejected by political economists Scott and Hood (2004). This conclusion was arrived at from one of the most tightly controlled cross-country comparative studies ever undertaken in this area, and which included higher education among other sectors under analysis. The research examined modes of regulatory control, and whether these were implemented through 'mutuality', where negotiation takes place between the key players, or imposed as forms of 'oversight' in a top down manner. It also considered degrees of market competition and the use of 'random' oversight as other forms of

control. Very little oversight was detected in the US, where the primary source of control was through market competition. At the other end of the spectrum, France was found to be the most heavily regulated of the European nations evaluated – more so than Germany, the Netherlands, and Norway – with a mix of mutuality and oversight. Australia was reported to be moving from mutuality to market competition, combined with overlapping levels of oversight. It was argued that the UK style of control was at least as different from the US style as either style was different from the classical Continental style, leading to the conclusion that national policy styles were unimportant (Hood 2004, 193).

The claim runs counter to accepted thinking in higher education policy, and this may arise from a very different methodological approach. The case studies used by Scott and Hood were structured to demonstrate the way in which different states embraced regulatory reform, but they also tended to lack critical detail. The main sources used were often official reports and statistics, rather than the scholarly literature and the area studies discussed above. Perhaps as a result of this, the standard warning signals were missed, such as the difficulty in comparing the US and other systems. Consequently, the cases note the sharp rise in oversight in the UK, as with Australia, and the apparent anomalous absence of oversight in the US. However, this may be a failure to take into account the historical context in which the former were developed precisely in order to emulate the American model and to push their national systems closer to a market-based model (Smith et al 2002; Marginson 2002). In turn, this leads to the alternative hypothesis being overlooked. That is, the UK and the Australian systems had a certain ability to move much more decisively and rapidly towards the US model, than those on the Continent, in response to external economic factors. This move often entailed high levels of intervention, by way of regulation and financial stringency, and the capacity to achieve this might relate to local and national conditions, and what is broadly termed ‘state capacity’. This points to a more curious anomaly, that these putative ‘weak states’ proved much more decisive and interventionist than the more directive ‘strong’ corporate states. Nonetheless, this pattern corresponds well with findings by Levy that show, during this same period, that leading liberal states managed to ‘overhaul their political economies on the basis of what appears to be a latent authoritative capacity’ (2006, 388).

Furthermore, the methodological approach adopted by Scott and Hood may be questioned. Higher education case examples were juxtaposed with case studies of the civil service and prisons, in an apparent attempt to discover common principles; however, this presents some problems. Taken as a whole, these analytical categories represent a poor set which is likely to dilute the analysis. Moreover, this design flaw highlights a much larger epistemological issue that is found at the boundaries of higher education policy and other areas of political analysis. For example, it can be argued that prisons operate at a more utilitarian end of the justice system, while higher education systems are usually considered to operate at a higher level, in a similar space as the courts and the legislature (Neave & van Vught 1991, x). These higher institutional levels entail the determination and judgment over fact, and establishing norms, and this is one of the distinguishing features of university research, both in the 'pure sciences' and in advanced scholarship. It is only at the lower end of the higher education system that well-codified routines and utilitarian procedures, such as occupational training, are followed. Similarly, standard procedures in applied research might be compared to the application of routine administrative procedures, such as occurs in prisons. Though not as compelling, the same argument applies to the civil service, in that it follows rules rather than sets them, and it only becomes implicated in higher order activities, and norm creation, to a limited degree. Nevertheless, as integral as the civil service and prisons may be to the operation of the state, the power relations that exist between these institutions and higher education are clearly not of the same order. This point, which is accepted intuitively within the higher education policy community, appears not to have been established *a priori* within political theory in general.

On the other hand, a recurring theme and well established principle in policy research is that national higher education systems operate within, and tend to seek, some degree of balance and equilibrium, and this is due to the fact that they are highly complex, self regulating systems that are culturally, socially and politically embedded. Within this equilibrium, different national styles and institutional arrangements are clearly expressed, such as varying degrees of academic or institutional autonomy. These features in turn reflect national 'morphological' characteristics that, it has been argued by Herbst, have a bearing upon system performance:

these morphological differences can be traced back to the cradles of the research universities' systems, and with the formation of ideal type notions of higher education systems, around which corresponding structures solidify, upheld by laws, contracts and common expectations or aspirations. (Herbst 2004, 15)

This extended national styles analysis has been successful in explaining the so-called 'Atlantic split'. However, this line of inquiry within policy research still only provides a narrow framework, and a poor basis for explaining state university relations, as it tends to rely heavily on historical and descriptive forms of analysis, rather than being firmly located within advances in political theory. Widely observed phenomena lead to the assumption of a relationship with national policy styles, which has led to propositions that relate to path dependency, but the fundamental mechanisms governing the process of path dependency have not been fully articulated. Moreover, there is serious contention over the importance of national policy styles, and significantly, this has come from outside the higher education policy community, from political economy. However, some of the assumptions driving this criticism might also need to be questioned.

The policy styles approach may offer greater potential as an explanatory method that might challenge the dominance of Clark's framework, but it would need to be more firmly located in the classic theories of state formation, such as notions of the autonomous state (Elias 1982 [1939]; Weber 1968; Tilly 1975; Ertman 1997) to which the national policy style thesis is very much a poor cousin. The observed linkages, and causal inferences, might then be better identified, and made more relevant to contemporary debates in political economy through which concepts of strong and weak states are being contested and developed (Skocpol 1979; Mann 1984; Davidheiser 1992; Weiss & Hobson 1995; Seabrooke 2002). To date, the most systematic examination of these ideas, in relation to education, relates to the developing world (McGinn & Street 1986) while the recent experience of higher education in advanced Western nations clearly lends itself to an examination of this kind. For instance, the initial wave of reform, from the early 1980s, was more thoroughly implemented within the Anglo states than in much of Continental Europe. Why this should be the case is anomalous in that it does not neatly conform to the conception of 'weak' states having a minimalist presence (Evans 1995, 22), given that the reforms were often rigidly imposed. However, as mentioned, this pattern does neatly correspond with more recent observations by Levy.

Centralised systems in Continental Europe are generally more consensual but are also viewed as being sluggish, compared to the Anglo systems where tighter regulatory control has been imposed through oversight (Goedegebuure et al 1994b, 7; Scott & Hood 2004, 82). However, some of the Continental states have also managed to lift their research performance, relative to the dominant position of the US. While this has involved a degree of regulatory push, they have also sought to retain a measure of mutuality, and access equity, which may support the proposition that state strength can derive from political legitimacy founded upon how well the state is 'socially embedded' (Seabrooke 2002, online) as much as it also needs to be institutionally embedded (Evans 1995, 10-17). Higher education would appear to be an ideal testing ground for this hypothesis, given the manner in which it tends to embody social and cultural norms.

Some other empirical evidence exists that may support tentative hypotheses about how state capacity mediates change. For example, from the 1960s, Britain fared reasonably well in the reform process, as its institutions retained a larger degree of autonomy (Clark 1983, 142-5). This was in spite of what often appeared to be 'brutal' reforms, but which in fact led to little institutional change due to the restraint shown by Treasury and the (then) University Grants Commission (Shils 1982, 462). This altered dramatically in the course of the Thatcher era that saw the introduction of central control 'worthy of India, Cuba, Russia or China at their most extreme' (Stevens 2004, 45). Combined with a struggle over resources, mostly induced by financial stringency, this consolidated a shift in the balance of authority from academics to institutional managers (Fulton 2002, 206-8), a trend that continued under New Labour (Kogan & Hanney 2000, 46-7, 232-4) associated with rising concerns about standards and quality. A similar scenario played out in Australia as the aggressive embrace of market-based strategies raised concerns about the continued role of Australian universities as civil institutions (Macintyre & Marginson 2000, 53). Public controversy accompanied policy shifts, due to concerns over growing student staff ratios, declining standards, and intrusions on academic freedom and control over the curricula (Duckett 2004; Norton 2005, 106). Massification of the Australian system brought greater numbers into higher education, but this came with the costs of a growing sense of 'mediocrity', along with declining hopes of improved

equity (Meek 2002, 244). In the US, diminishing federal support and higher fees also reduced access equity to the point where only three percent of the lowest-income groups are represented in the top 150 colleges (Bowen, Kurzweil & Tobin 2006, 163). This compares to the Continent where access equity issues have been less apparent due to the acceptance of principles of equality of educational opportunity. This may change as reform processes deepen. However, the experience to date supports the proposition that the most destructive impacts of market liberalism may be effectively tempered by mutuality and negotiation facilitated within corporate systems.

While the US has moved towards greater market intensity (Case Study 3, 221), Australia and Britain have encountered greater discontinuity as tighter market integration has been imposed by a combination of regulatory controls and funding cuts. On the Continent, the extent of change varies but on the whole is less dramatic, particularly in some instances, such as France. Others appear to be steering a midway course between more negotiated outcomes and a hard regulatory push towards the market. This appears to be the case in the Netherlands which, significantly, has taken the unusual step of cutting dramatically the number of regulatory controls (from 2000 down to 300) at a time when other countries, swept up in reform, were increasing them (Goedegebuure et al 1994b, 196). The question is whether Continental systems can maintain a balanced approach and what difference this might make?

Another important trend emerging from research, certain to have increasing impact, is the finding that exposure to market pressure tends to increase hierarchical stratification within the higher education system. The pattern is that former hierarchies built on academic reputation and prestige are being systematically extended and overlaid by new hierarchies based on institutional ability to compete in local and global marketplaces. Some of the mechanisms behind this transition are well known. As institutions become more deeply engaged with external stakeholders, their modes of knowledge production change, their organisational boundaries become blurred, and as a consequence, their structures become more transitory. These changes can enhance institutional power, Henkel argues, as they may represent an 'exercise in re-integration' in which the identity of the organisation is rooted in a strong academic culture working in collaboration with a new kind of institutional leadership.

At the same time, this process can create difficulties for others largely because the inequalities of what have always been a highly stratified system increase and more explicitly so. (Henkel 2005, 159-60)

Essentially, as academics negotiate more broadly with external stakeholders, notions of autonomy and academic freedom become more contestable. So it is not hard to conceive that the stronger and better resourced the institution, the better placed it is to preserve that autonomy, and there is good evidence of this from the US. Wider engagement with stakeholders ‘at the periphery’ of the academic enterprise comes at the expense of activities that support the core mission, but at the more prestigious institutions, faculty plays a larger role in decision-making, and academic programs are less reliant on the generation of external revenues (Toma 2007, 61-2). Similar evidence exists in Australia, where from the outset, the more prestigious bodies embraced with zeal proposals for the creation of a unified system in the 1980s. Indeed, the changeover was in part driven internally across-the-board by institutional leaders seeking greater financial autonomy to generate funding, though the rank-and-file academic community was much less enthusiastic (Meek 1994, 37).

Consequently, it was also the more prestigious institutions that best secured additional scope and flexibility for their operations, and were also most successful in meeting the challenges of entrepreneurialism. This capability tends to decline, and the ability to preserve academic culture diminishes, further down the scale (Marginson & Considine 2000, 189-97, 237-8). In turn, this has begun to threaten the ability of those institutions to carry out the ‘necessary separation’ of their ‘commercial engagement from their mainstream research terrain governed by academic freedom’ (Marginson 2007a, 128-9). The question these observations raise is the extent to which the reform processes simply reinforce an international hierarchy and help to reshape this along the lines of a global capital flows? In this respect, Olssen and Peters argue that the prospect of higher education serving a useful social purpose is increasingly circumscribed by the operations of the market and the extent to which individual nations embrace a ‘neoliberal ethic’ (2005, 314-24). This claim hinges upon the idea that a significant material change that ‘underpins neoliberalism is the rise in the importance of knowledge as capital’, a change that more than any other propels ‘the neoliberal project of globalisation’ (Olssen & Peters 2005, 330).

This raises the question of just how fundamental is the commodification of knowledge to reshaping citizenship, and what are the key factors that mediate global impacts within individual nations? Moreover, these ideas clash head on with a new school of thought that argues that globalisation of higher education will forge a new paradigm in which the university will become the ‘cradle for global civil society’ (King 2004, 65-6), combining the traditional function of the university with the new demands of the twentieth century (Denman 2005). In this way, the university is seen to continue its vital role as the central location for ‘ideal speech’, bringing together scientific research and scholarship (Habermas 1981, Habermas 1989, 107) in ways that can inform a ‘technological citizenship’ (Delanty 2001, 9). All of this may provide a newly revised purpose and rationale for the university, though it is difficult to see, as yet, how the ‘public sphere’, through which this new global citizenship might be expressed, will become manifest on the global stage.

These debates point to core problems relating to conflicting notions across – but especially between – political disciplines, about conceptions of the nation state and how these are changing due to the impacts of globalism. Moreover, how do these changes relate to the role and purpose of higher knowledge in relation to citizenship, national identity and political power? What is currently ‘the idea’ of the university, and how is it possible to define the purpose of ‘higher learning’ in the light of globalism?

Concepts and Definitions

A growing body of higher education policy literature seeks to explain the changing relations between the university and the state, but often without sufficient regard to advances in theory. Furthermore, many of the concerns raised cut across – rather than engage with – issues in critical theory and philosophy, such as those relating to the nexus between knowledge and power. There are good reasons why these areas of scholarly endeavour concerning policy, politics and knowledge are pursued in relative isolation, as each alone can represent a moveable feast. It is therefore critical, in order to undertake a fundamental rethink of the purpose of higher learning, to develop a

clear conceptual framework and set of definitions within which these disparate discourses can be contained and negotiated.

A thorough rethink in this general area is well overdue when considering the changing nature of knowledge. Whitehead once quipped that ‘knowledge does not keep any better than fish’ (1932, 147). As the university’s basic stock-in-trade, knowledge not only undergoes constant change, but unlike fish, the very concept itself is also subject to revision. This confounds attempts to properly define ‘the university’ and what it does. Bureaucratic and legal definitions mostly relate to the right of accreditation given by the state to award degrees, and this usually acknowledges that universities are institutions carrying out ‘teaching and learning’ and engaged with ‘advanced knowledge’. This includes the ‘creation of new knowledge’ (DEST 2005, online) though debate exists over the extent a university needs to conduct research, as opposed to being involved in teaching and scholarship. This is prompted by the internationalisation of higher education and the need for cross accreditation. In this context, one proposed definition (Denman 2005, 19) of the university is that: ‘A university is a complex higher education organisation that is formally authorised to offer and confer advanced degrees in three or more academic disciplines of study’. Denman notes that embedded in the term ‘advanced’ is the notion of ‘research’ and ‘scholarship’. Such definitions acknowledge that the university creates new knowledge, whether by scholarship or science, and this accords with definitions in the historical literature, though these are much fuller: ‘A university sits atop an educational hierarchy, awards degrees and trains its own members and evaluates itself by peer review’ (Frijhoff 1996a, 69-70).

Still, these definitions provide only a thin conceptual outline of what the university is, and what is its purpose. Consequently, it will be argued that the university embodies what is loosely termed the *academy* and that the primary task of this entity is *higher learning*. The reason is that in functional terms the university is located at the generative core of a constellation of agencies, learned societies, associations and centres that have either spun out of the university, or rely heavily

upon it for training and peer review². It is within this larger amorphous body that the ‘omnipresent memory’ of the university (Neave & van Vught 1991, x) is nourished. Without it higher learning would be near impossible. This acknowledges that the institution of higher learning, as a common human attribute, stretches beyond physical institutional settings: it is part of a living and shared memory. This would exist even if every university building and campus disappeared without trace, in the same way, as it has been noted, that early literate Chinese and Islamic civilisations passed knowledge down through generations, in ways that were less reliant upon physical institutions (Grant 1996, 33-34). It is not possible, therefore, to neatly separate the institution of the academy from the larger ‘invisible university’ that has expanded over hundreds of years, as networks of students and scholars form links ‘bridging institutional knowledge with civil society’ (Charle 2004, 75). In this regard, notions of higher learning, in both Eastern and Western cultures converge: both are defined as the process of systematically acquiring and accumulating advanced knowledge in ways that are ‘transformative’ (Fehl 1962, 1-14) and in the Western tradition this process is encapsulated and symbolised in the academy. Since the middle ages this has become the global model, with the exception of the al-Ahar University in Cairo (Altbach 2003, 3), which provides a singular reminder of the fact that some of the roots of Western tradition derived from Islam, as discussed later (Chapter 1, 50-3).

Importantly, the academy might also be defined by the fact that it can make legitimate claims over the possession of certain facts that seek to explain the workings of the universe, and all that it contains. Logically therefore, it follows that it needs to be the principal arbiter of what is accepted and conveyed as ‘new knowledge’, which suggests the need for a certain autonomy in determining how and where that knowledge is sought. This is where the boundaries of the academy press against and conflict with the ‘supervisory role of the state’ (Jaspers 1960 [1946], 134). Nonetheless, the academic profession usually claims legitimacy through possession of higher order facts, and accepted wisdom, that reflect the ‘natural order of things’, sometimes referred to as the reigning ‘*cosmology*’. There is normally dispute over aspects of the prevailing cosmology, especially how this relates to everyday existence,

³ The substance of some of these claims and the general use of ‘higher learning’ as an all-embracing term may be controversial. However, the analytical reasons behind this are provided in Chapter II.

but the general structure of the universe and the nature of causation provide a basis for the academic community to function with some coherence and integrity.

At this point, this whole conceptual frame might be summarily dismissed as naïve realism in that it presents a universalistic account of knowledge. A constructionist account of higher learning, in which different cultures and individuals possess their own understanding of the universe, would suggest that the nature of the universe is contestable, and perhaps unknowable. It may even be that there are parallel universes or ‘pluriverses’ (Latour 2004). This contends that all knowledge is ultimately a construction, evident in the fact that it can be shaped by the methods of inquiry used, and the tools and scientific instruments put to use. Ostensibly, these remove human values from the process of inquiry, but instead ‘disguise the importation of another set of values’ (Latour 2004, 260-9). The history of science testifies to the fact that this may occur, as will be discussed, but only up to a certain point, where ‘stubborn facts’ intervene. The prospect of multiple universes existing is useful in generating speculative ideas, but the causal relations governing these imagined states are beyond verification. As a consequence, there is no evidence to support the thesis of ‘universal constructionism’ (Hacking 2000, 24). However, this whole debate cannot be readily put aside, as there is a large gap between these positions that needs some reconciliation in order to move forward (Chapter III).

The pure stubbornness of the material evidence that goes towards existing human knowledge, comprising all that is known within the universe, about such matters as galaxies and planets, quantum reactions, neural networks, and so forth, leaves much that is discovered by science fully intact. However, the political motives and social determinants that have prompted some initial questions and delivered particular forms of knowledge are now much more transparent, due to constructionism. It has helped to locate claims of ‘objective knowledge’ within their social and political context. The proposition here is that this can also lead to the conclusion that human norms and values *mediate* the generation of knowledge rather than serving to fully ‘construct’ knowledge. In support of this idea, wholly relativistic conceptions of knowledge are waning among critical theorists (Norris 1997), and philosophers have also observed a polar shift from Kant to Dewey (Rorty 2007, 184-202), through which there is less emphasis on the contemplative and speculative

aspects of knowledge. This is also a response to the excesses of post-modernity and the associated cultural preference for ‘literature over science’ (Rorty 2007, 89-104). These shifts are moving debate about the complex interrelationships between science and society towards a more sophisticated experimentalist approach, explored by Unger. This represents a radical departure from American naturalism and reclaims the central idea that ‘the connection between thought and practice is most intimately and fully realized only when our minds are addressed to our own affairs – the concerns of humanity’ (2007, 28-31).

It is not the purpose here to delve deeply into the epistemological issues surrounding the true nature of knowledge, but rather to elucidate a coherent definition that coincides with trends in current theory, and is therefore useful to thinking about the purpose of the university. In this respect, a theoretical case is advanced here that a pragmatic conception of knowledge – including a *neopragmatic* account that acknowledges the key post-modernist critiques – is vital to understanding the nature and purpose of higher learning in civil society, and what is inherent in the relationship between the academy and the state. Whitehead well expressed a pragmatic view of knowledge when he observed:

The importance of knowledge lies in its use, in our mastery of it – that is to say, it lies within wisdom. It is a convention to speak of mere knowledge, apart from wisdom, as of itself imparting a peculiar dignity to its possessor. I do not share in their reverence for knowledge as such. It all depends on who has the knowledge and what he does with it. (Whitehead 1932, 49)

As noted earlier, Whitehead was keenly aware that knowledge is inherently changeable, pointing to the fact that whatever the university may be, and whatever relationship it may have to the state, both are likely to change constantly. The critical variable to distinguish within this state of flux is the way in which political power interacts with knowledge. Francis Bacon’s idea that *scientia potentia est*, or ‘knowledge is power’, is often misused to suggest that knowledge is synonymous with political power. In modern political thought, power is normally associated with the state, due to the persistence of Weber’s idea that it has a monopoly on sanctioned violence, through which it obtains its monopoly over administration (Giddens 1985, 121) within a defined territory. Political power can rest upon knowledge, by critically

informing judgements and preferences, and in this way political authority can gain legitimacy by applying valid knowledge.

On the other hand, Foucault (1977) contends that political authority can also bring legitimacy, and therefore power to knowledge, by embracing particular interpretations and forms of knowledge as being valid and useful. Be that as it may, political authority is not routinely engaged in, nor wholly devoted to, the generation of advanced knowledge. It is much more the case that politics is in the business of consolidating power and the synthesis of useful knowledge can be useful to this purpose as it allows for legitimate claims to be made. Practical truths can inform political ideology, or rhetoric, and assist in daily decisions. This way of thinking led Jaspers to argue that generating advanced knowledge was primarily the task of the academy, but the power in the knowledge embodied in the institution was, to varying degrees, circumscribed by the supervisory authority of the state (1960 [1946], 133-5). This proposition contains the kernel of a theory that can provide a working hypothesis to explain the intrinsic nature of the relationship between the academy and the state, and this will be outlined below (see *Aims & Methods*).

By this formulation, power and knowledge are distinct, at least in regard to the functional purposes of the state and the university, if not more generally. Each relates to truth claims in ways that create interdependency and complexity between the two. Nonetheless, Foucault sees the intensity and closeness of power-knowledge relations when he observes that truth is ‘not outside power, or deprived of power’ but rather truth is ‘of the world’ produced by virtue of multiple constraints, so that societies have ‘general politics of truth’ and the role of the intellectual is to contribute to the production of truth. This provides a way of seeing knowledge as conditional, and ‘of human existence’ rather than in any way existing somehow in itself, which is also Whitehead’s point. However, for Foucault, truth and power work together and merge conceptually within a particular social context to produce a ‘regime of truth’. This defines the type of ‘discourse that is created’ (Foucault 1997,13). When this is taken to mean that true knowledge relates to a ‘privileged discourse’, it impoverishes notions of objective truth, making it only relevant to a particular social context.

A more pragmatic approach derives from the Greek notion of *technē*, originating from what is the essence of knowledge embodied within a crafted object. The meaning was gradually extended through to higher forms of transferable skill and knowledge, such as that required for the practice of astronomy and medicine. Ultimately, this led to a philosophical conundrum for Plato about whether the concept could also extend to the art of rhetoric and moral reasoning (Roochnik 1996, 10-2), which he ultimately rejected. This thesis encounters this same problem specifically in regard to the ethical and moral dimensions of human *technology*³ as they come into play in relations between knowledge and politics. It is argued that *technē*, or ‘human technology’, must be conceptualised broadly as the vast technical enterprise that is commonly thought of as urban civilisation. However, this necessarily includes the enormous human capacity and advanced knowledge that is required for its maintenance. Higher knowledge quite specifically therefore relates to the human moral truths embedded in the way human society interacts with nature, and in the way in which technological existence is achieved and sustained. Allen suggests that when humanity strives to meet the higher goals of existence, this can be considered as ‘superlative artefactual achievement’ (2004, 60-71). On the other hand, counterproductive forms of knowledge are systems, procedures and technologies that might illustrate some degree of rational elegance, but prove futile in practice. Any number of examples exist, from the way in which cities are designed around inefficiencies and unsustainable consumption patterns, to the way in which global food markets and distribution systems create wasteful abundance and agonising scarcity.

This view of knowledge, and how it arrives at a form of moral reasoning, is quite distinct from logo-centric propositional forms of understanding from the Greek analytic tradition, where knowledge derives predominantly from abstract argument and theorems. In this regard, pragmatic knowledge is the tacit understanding that derives from human interaction with material culture. However, this formulation does not in any way undervalue propositional and abstract forms of knowledge but embraces them as necessary prompts to speculation and problem solving. In this way,

⁴ As a single definitive term, technology will be shown to be wholly inadequate to the analytical task of accurately describing the way in which various human capacities, skills and techniques can, at one point, take the form of agency, yet at another stage, go towards structure. While the term can be conceptually confusing in this regard, there is no plain language substitute.

the human imagination is expressed in the creation of the cultural, material and living artifice of human existence. In other words, the definition synthesises knowledge embedded in the intricate working artefact of human urban existence with the ability to theorise, imagine, plan and navigate a course into the future. This line of thinking and scholarly inquiry has a rich provenance in Dewey's instrumental notions of knowledge and in Hegel's dialectic progress of history. Nietzsche was supporting pragmatism when he dismissed much of classical analytical philosophy as 'fraudulent' and 'delusional'. When he put the question 'what is truth?', his answer was: 'A moveable host of metaphors, metonymies, and anthropomorphisms'. Truth is something, which 'in itself' is quite 'incomprehensible', yet it is the very thing that man seeks most, not 'pure knowledge that has no consequences' (1979, 814). The importance of truth is in the process of seeking it, and the human consequences of this process. The material substance of truth is the elaborate living artefact of human endeavour.

A new pragmatism is evident in the current trends in thinking about 'modes of knowledge production' (Gibbons 2003, 190), which is the tacit knowledge developed through interaction between researchers and end users, which will be discussed in some detail in Chapter II. What needs to be revived in the light of these theoretical debates, however, is the way in which this alters basic conceptions of the university and its civil mission. For instance, one of the great extravagances of post-modernism was the enthusiasm with which globalism was embraced (Chapter III, 93-5). This opened many of the doorways that allowed other questionable ideas to rush through, such as 'new public management' (NPM) that became fundamental to the rise of market liberalism and central to the reorganisation of higher learning. However, this has since gone out of fashion within government, albeit very quietly (Case Study 3). The warm embrace of NPM might have been random coincidence, yet there is a close correlation between this and the wider embrace of theories borrowed directly from science, related to notions of relativity and chaos. As more pragmatic notions of knowledge emerge, there may also need to be a wholesale revision of the organisational principles that have informed the direction of higher learning over recent decades.

Aims and Methods

As mentioned above, the principal aim of this thesis is to offer a revised theoretical conception of the purpose of the university, a key to which, it is argued, is unravelling the intrinsic nature of the relationship between the academy and the state. The argument is advanced in three stages: a substantive history, an analytical history, and a set of contemporary Case Studies. Each of these components bring together three lines of inquiry that: firstly, develop a theoretical position based on historical evidence; test and validate this against more recent evidence and current theories of knowledge and power; and finally, test key propositions that flow from this using a set of tightly constructed Case Studies.

The overarching narrative uses a historical sociological approach; however, this is presented in its two modes, the ‘substantive and analytic’, as described by Skocpol (1984, 374-8). The substantive mode is best applied to explain how and why events unfolded as they did, and this is the dominant method used in Chapters I-II, to provide a rich ontological context in which the main theoretical claims for the thesis are developed. These Chapters trace the evolution of organised higher learning in relation to the formation of the state and the articulation of the European system of states, as the basis for the global model. However, as the narrative moves beyond the Middle Ages, it becomes productive to draw comparisons across time and between states, which brings a progressive shift towards the more analytic mode, though the general chronology is continued. In Chapter III, the central theoretical claims of the thesis, developed previously, are elaborated upon and tested against more recent historical evidence, including state experiences during the twentieth century. This mode of analysis also allows the claims relating to the mechanisms behind path dependency, which in turn support the hypothesis of structural interdependence and coevolution, to be more fully explicated. The nature of these claims means that they need to be tested over very long time spans rather than a narrow historical period. Finally, the Case Studies do not follow the broad time lines of the previous chapters but are designed to test specific claims relating to political processes relevant to the main argument. This is done within a short period, within the boundaries of a single nation’s experience, but within the context of state formation processes underway

across the Asian region. Australia is examined as a useful Case Study subject as it offers a highly representative model that can be clearly located within a larger comparative framework, and this allows for more general observations to be made. Each of these approaches, the historical, the analytical and the empirical, allows for mutually supporting elements of the argument to be developed.

Overall, the thesis aims to test the idea that organised higher learning is a structural response to the emergence and maintenance of urban society. This initially brought about the formation of literate power elites composed of political, educational and religious leaders, and this basic social morphology continued to re-emerge, and the imprints of this can be found in respect to the emergence and formation of the secular state. In the first three chapters, historical developments in different periods represent a series of temporal case studies in which it is possible to identify patterns of causal regularity (Haydu 1998; Mahoney 2000, 508-9). These consist primarily of the ways in which both higher education and the state respond to a common set of problems and material circumstances. Key among these are the ritualistic and symbolic functions that higher learning served in the process of state formation, and consolidation, and in subsequent stages of developmental change. The reiteration of these responses, or *process sequences*, supports a conceptual outline that incorporates a distinct model of *punctuated equilibrium* in that changes in developmental trajectories occur at critical junctures but which can be shown to be ‘outgrowths of earlier trajectories (Howlett & Rayner 2006, 14). This provides the main explanatory method through which the central hypothesis is developed: the Western academy and the secular state together articulate, and in different ways, respond to the same problems derived from the same set of material circumstances. As a consequence, this brings about a binary relationship described as *co-evolution*. This represents more than the coincidence of developmental pathways, and relates to their *structural interdependence*, in that it is not possible to define one in the absence of the other.

It is argued that in the course of state formation, and the elaboration of the state system a fundamental – and to a very large extent – productive tension existed between the legitimising role of the academy and the supervisory role of the state, as first put forward by Jaspers (1960 [1946]). Self-reinforcing processes are a mark of this collaboration working well, and reactive processes point to a breakdown in the

partnership, and potential disequilibrium. At the macro level, the most obvious signs of disequilibrium were during periods of entrenched authority, with the Tudors in England, during the Soviet regime and under National Socialism in Germany. The pattern becomes more variegated in the latter part of the twentieth century. However, the proposition that is advanced is that the 'golden era' (Case Study 3, 208-9) of the post-war years was characterised by deeply self-reinforcing sequences, and this brought a sharp reactive response in the final decades, setting off instabilities. These are associated with the current debates over the crisis in higher education. This was a global phenomenon, but the impacts were more pronounced in some states than in others, and it is suggested that these variations can be explained by theories of state capacity.

The narrative approach taken here is made possible because of new and very detailed comparative histories of the emergence of universities (Pederson 1997; Ridder-Symoens 1996b). In combination with the emergence of new archaeological evidence, this makes it possible to test some key assumptions, and theoretical propositions, about the relations between the university and the state. This in turn prompts deeper analysis in some areas. The aim is not to reveal universal laws that possess the same kind of predictive force of those in the natural sciences. This point is important because throughout the text the analogy is often drawn between the 'evolution' of social structures and the evolution of natural systems. But this is in large part a descriptive device, and relates to the meanings of these terms as discussed earlier. It is not meant to suggest that there is no analytical distinction between the two. The presence of human intention, even when it is embodied within social organisations, means that unlike natural systems they are more 'open' to human agency. So it is not possible to expect they will operate with the same level of precision as general laws in nature (Bhaskar 1986, 108-10, 153). Rather, the aim is to describe a series of explanatory variables that mediate state university relations, and in doing so arrive at an internally consistent set of theoretical conceptions.

In the Case Studies, the power of these explanatory variables is tested against contemporary empirical evidence, supplemented by primary source material. The aim is to test the causal inferences at a 'macroscopic' level. However, this is structured as three intersecting Case Studies, which examine how the different factors, the global,

the national and the local, each come into play. In each of these Case Studies a variety of conceptual tools are applied, depending on the focus of analysis and the explanatory goals (Goldstone 1998, 841). As a result, each of these cases represent independent studies, but all support the main argument.

Key propositions

The central proposition being tested across the thesis is that the university was functionally involved in the formation of the secular state and has been deeply implicated at every developmental step in the evolution of the state system. Moreover, this occurred in a two-fold manner. First, it provided much of the intellectual and technical capacity that enabled the emerging state to attain functional autonomy, and then enabled it to expand and extend its ‘penetrative’ power. Secondly, it produced and continuously reproduced the social and technical elites underwriting state capacity across generations, which in turn consolidated the academy’s symbolic power. The academy gave the state legitimacy; however, this necessarily entailed – and continues to entail – the academy remaining institutionally distinct. As a result, the two entities developed a tight binary relationship.

This idea relates to the observations initially made by Jaspers, referred to earlier. He was writing amidst the great devastation of post-war Germany at a time when the academic profession there desperately needed to rethink its role and purpose in relation to the state (discussed in Chapter II, Sect. C). There has been much historical scholarship since that time on the origins and growth of the university, and much contemporary debate. Through all of this, Jaspers’ propositions have enormous resonance, suggesting that these ideas are worth developing. In this respect, and in the context of the conceptual framework elaborated above, the central hypothesis will be advanced that the state derives its power from its legitimate claim to a monopoly on sanctioned violence while the academy derives its authority, and its symbolic power, by virtue of its understanding of the cosmological order, being the verifiable product of cause and effect. This power is given potency by the fact that it can speak directly to the legitimacy claims of the state. The state can also bring legitimacy and a

measure of authority to the academy. What exists, therefore, is a tightly wrought symbiosis that tends to generate ambiguity, contradiction and endless border conflict.

In a modern pluralist state, in particular, the boundaries between these two entities are fairly-loosely drawn, open to negotiation and in flux; however, beneath the surface, there is a realist political struggle with deep roots. This is fuelled by the fact that both institutions rely on truth claims for legitimacy, the source of which is knowledge, making conceptions and theories of knowledge central. However, conceptions of knowledge and knowledge itself, as Whitehead points out, undergo constant change. Exercising political power and generating advanced forms of knowledge are quite distinct activities, but they are similar in that each draw from the same well of truth, both gaining legitimacy and symbolic power from its waters, but in very different ways.

From this hypothesis, a series of propositions follow that are outlined in the individual Chapters. For example, due to the close interdependence, or ‘symbiotic’ nature of their relative power relations, the academy and the state have undergone co-evolution, which brings about some correspondence in their relative power and authority. It can be observed that under authoritarian regimes, the institutional autonomy and intellectual freedom of the academy is usually heavily constrained. However, a question this thesis seeks to resolve is to what extent, and how, this might also occur within liberal states? Do gradual changes, and shifts, in the nature of state power directly impact on the academy? The proposition to be tested is that when political power within a state becomes more entrenched and inward looking, it is likely to bring constraints on the academy. This is likely to occur as state power undergoes transition and transformation, either as part of the internal processes driving state formation or resulting from external factors, such as the reconfiguration of power relations within the global system of states. This prompts a series of secondary questions and propositions. For instance, what can the analysis of these processes reveal about the nature of the state? What are the implications regarding the transfer of policy ideas between national systems, considering the powerful role of path dependency? Does this transfer between systems set off complex reactions, and can these be scrutinised and explained in relation to notions of state capacity? Moreover, how can these processes, and this phenomenon generally, help to explain

some of the great anomalies and contradictions that are observed within higher education systems?

Chapter I argues that the combined archaeological and historical evidence supports a hypothesis of co-evolution, which becomes foundational to the main theoretical claims. It is argued that a fundamental human drive for higher learning was realised when human society began an urban existence, with the growth of cities. This was the context in which the structural interdependence of higher learning and the state was, if not initially forged, fully tempered. This chapter also tests the claim that it was a combination of the academy's instrumental and symbolic power that was central to the formation of the secular state, leading to the claim that relations between the academy and the state represent a microcosm, representing the larger and more complex power relations that exist between the state and civil society as a whole. In this regard, the argument is developed that these relations are also formative and 'morphogenic' in nature.

Chapter II develops the argument for co-evolution and interdependence, utilising a framework of agency and structure to examine the interplay between knowledge creation, the generation of technology, and the way technology becomes socially and politically embedded in social material conditions. This in turn creates feedback mechanisms into the way in which knowledge is then created and regenerated. This demonstrates that human knowledge, embedded in technology, shifts between agency and structure, leading to the proposition that states, and their systems of higher learning, are configured in various ways so display different 'morphogenic' features. However, each demands some degree of equilibrium for these feedback systems to function properly. Moreover, because agency-structure feedback systems of higher learning and state formation can be observed to operate over very long time periods, it is argued that their analysis is likely to reveal much about the underlying state structures, a proposition that is later tested (Case Study 3).

Chapter III brings the historical and theoretical arguments in the thesis to a head, by testing and validating the central hypothesis of co-evolution across the broader context of knowledge and society. This draws upon the empirical evidence relating to the outcome of twentieth century state experiments, and evaluates the

evidence of the broad social impact of technology at the national level and institutional level. From this, it is argued that an explanation of path dependency can be found by looking at the ‘congruence’ that occurs between technical systems and human organisational forms, and that this has intensified with the advance of late modernity, making the issue of knowledge production of vital political significance. In relation to this, the Chapter provides the broad theoretical context for the following Case Studies. These focus upon the way in which the *reinforcing process sequences* long associated with the evolution of the state, in relation to higher learning, became *reactive process sequences* in the final decades of the twentieth century, brought about by the consolidation of US hegemony.

The three Case Studies (Chapters IV, V & VI) test key propositions developed throughout the early sections of the thesis, defining the political role of higher learning in relation to the state. This is achieved by tightly linking each of the Case Studies, using one country, Australia, as the central focal point. The purpose is to test the explanatory variables at a microscopic level, while also bringing the analysis into the current ‘reform’ era. Each Case Study focuses on the same period for the analysis, though some necessarily stray into earlier historical events for essential background. Australia was at the very forefront of the internationalisation of higher education, resulting from the most aggressive reforms undertaken anywhere. It was a pioneer in developing approaches and models that have been widely adopted elsewhere, such as the world’s first graduate loan scheme. The way in which Australia went about the reform process was arguably among the most controversial, and perhaps also among the most destabilising, making it a suitable candidate for close scrutiny. However, the Chapters leading up to the Case Studies, and the studies themselves, firmly locate Australia within a well-developed comparative framework of state capacity, and this allows for some general observations to be made.

Case Study 1 advances the proposition that regionalism, rather than globalism, is likely to be the dominant political organisational form that will be analogous to a new stage of state formation, and that this will necessarily implicate the ‘formative’ role of higher learning. In this context, Australia’s higher education exports and research linkage to the Asian region are examined in relation to the national interest. It is argued that the imperatives of regionalism have begun to shape new structural

conditions, and these provide the mechanisms through which new organisational forms, relevant to the aspirations of civil society, are most likely to emerge. There are clear signs that this process is synchronous with unparalleled growth in the networked university in the Asian region. However, the nature of Australia's involvement in the expansion of educational services, and research linkage, throughout the region runs the risk of being wholly out of step with these developments. This can be explained, at least in part, by a lack of strategic coherence. Exactly how this came about, however, is explored in the following case study.

Case Study 2 tests the proposition that the centralisation of power and incursions into academic freedom have diminished the creative and innovative capacity of Australian science and higher education. This goes towards the general claim that when political authority becomes inward looking and entrenched, it invariably seeks to contain and capture the academy. It is argued that, in the context of Australian policymaking, this principle is related to problems associated with a lack of mutuality and consensus, causing instability, which in turn has led to an overall lack of strategic coherence. The claim is that within a liberal democratic system, the fundamental tensions between the legitimising role of the academy and the supervisory role of the state come into play in complex ways that relate to underlying structures of the state. The precise nature of this instability, however, is best examined at the local and institutional level.

Case Study 3 tests the 'political instability hypothesis' with respect to the recent changes in Australian higher education. This suggests that changes at the macropolitical level can disrupt consensus over policymaking, leading to instability. This investigation also illustrates what can be revealed about the nature of the state, and its political conditions, by examining key elements of the relationship between the academy and the state. The changing shape of these relations is explored by tracing interactions between the 'peak' higher education lobby (the former Australian Vice-Chancellors' Committee) and government. The argument is developed at the theoretical level in relation to notions of state capacity and tested at the empirical level using rational choice theory. This supports the proposition that Australia is best viewed as a 'composite' state, displaying a volatile mixture of corporate and pluralist tendencies. This analysis points to the actual processes and underlying mechanisms

that create instability within higher education, in relation to the ‘macro’ shift from a predominantly Anglo-European model towards the US market model.

Chapter VII draws together the three main lines of inquiry in order to examine the central dilemma facing the university. The proposition is advanced that the university in late modernity has become a central actor in the creation of rational systems that ‘govern’ daily life. This brings to the fore a key paradox in urgent need of resolution: the single institution often best equipped to evaluate and mediate knowledge generation and technological design is the university itself; however, it is suffering from paralysis in this particular area. The chapter then challenges the key assumptions attached to globalism, and the idea that the ‘decentering’ of the university necessarily entails the collapse of its civil mission. It is proposed that this line of argument, while intuitively appealing, lacks an adequate theoretical explanation of the transformation of the modern state. An alternative explanation is offered for what is often seen as the current crisis in higher education. This explanation draws on concepts of structural change and disequilibrium relating to the changing conceptions of state power with the impact of globalism.

The conclusions have major theoretical and practical implications, the foremost being that higher learning needs to be more clearly distinguished from other sectors. Its relationship to the state is such that conventional policy approaches to the sector – adopted varying degrees by many countries – are in need of some revision. A key task of the thesis was to examine the political interface between the university and the state, as there is often a disciplinary gap – between higher education policy and the study of politics in general – into which analysis of these relations disappears. Having probed this relationship systematically, by setting forth a series of hypotheses and testing these in relation to theoretical arguments, and against the historical and contemporary empirical evidence, makes it possible to firmly locate the role of higher learning within contemporary theories of state formation, and political theory more generally. Furthermore, it then becomes possible to outline an entirely new perspective on the emerging responsibilities, opportunities and challenges that confront higher learning, and which altogether form the basis of a new case for the university.

* * *

Chapter I

The Origins of the Academy

Introduction

Organised higher learning is not unique to Western society though what is distinctive is the long and sometimes bloody struggle for academic autonomy. The history of this struggle, and its repeated occurrence in modern history, provides the clearest signposts to the emergence and success of the liberal democratic state. However, the story of how this struggle progressed has often competed with cultural and national mythology. It is only from disparate areas of research that it has become possible to bring together the complex story of how the Western academy came into being. The evidence shows that the university that exists today has various origins: some in ancient Greece, others in Islam, parts in medieval Europe, and still more from the afterglow of the Enlightenment. Each produce fragments of the story, moments in the articulation of Western higher learning; none in isolation explain how the social and academic institutions of higher learning, embodied in ‘the university’, came into being. All are markers that punctuate a continuum defined by two key influences: the universal human drive for higher learning that grew with intensity when human society settled permanently in complex urban environments, and progressive moves towards more sophisticated political organisation. Technologically complex urban-based societies possessed distinct forms of higher learning, intrinsic to their social and religious life, but these can be defined most clearly by how the state was organised. This may be why, for example, the current model of the university is often seen to have its origins in the medieval university because this is when the state system, that exists today, was at its earliest point of conception. However, it is possible to go back around 3000 years and find forms of organised learning associated with the rise of the earliest literate cultures.

It has been long established that by around 2200 years ago, ‘pagan’ universities began spreading across the Grecian territories around the Mediterranean and into Asia Minor, and these worked in the service of the state, though more significantly, their traditions represented a break from Hebrew law in that man, rather than God, was placed at the centre of the cosmos (Walden 1909, Castle 1961). This is when the civil role of education was first conceived in terms of informed citizenship, and this is the starting point for university

‘student life’ (Forbes 1933, 413), and it was by all accounts as unruly and disrespecting of authority as in more modern times. Students numbering in the thousands came from across the civilised world, drawn to the most prominent academies on the island of Rhodes and the great ‘university cities’ of Athens and Alexandria (Argyle 1974, 349). However, it was not until the late medieval period that the civil ideals and the symbolic authority of the university found clear expression as the university became instrumental in the rise of the secular state.

The argument developed here tests the proposition that at critical junctures in the evolution of the university, changing material circumstances and the emergence and struggle over new ideas correspond to changing notions of civility and concepts of the state. In this way the pragmatic quest for knowledge and the search for moral purpose become woven together with political organisational change. In chapters that follow, it will be argued that this duality became increasingly intense and pronounced. This is apparent with the emergence of the modern research university, inspired by the Enlightenment and the Scientific Revolution, which encapsulated bold conceptions of individual autonomy, freedom and human progress. These ideals became central to social contractarianism, underpinning the rise and success of the modern democratic state.

The first ‘universities’, named as such, appeared in northern Italy after the end of the millennium, and much mythology has grown up to suggest that ‘wandering scholars’ came together spontaneously to pick over the threads of Platonic Humanism that had survived by way of ancient texts. But this is only true up to a point. The growth of universities coincided with other critical changes: growing economic prosperity, a gradual cultural reawakening and early signs of moves towards the formation of a unique system of European states. This was the fertile soil in which universities such as Bologna, Padua, Paris and Salerno flourished. Bologna was at the crossroads of what for centuries had carried a stream of immigrants to Rome. It also linked trade routes into Italy from the north beyond the Alps, and so it was exposed to ‘social and economic cosmopolitanism from an early date’ (Cobban 1975, 49). The narrative of how these connections created a direct lineage in Western learning traditions, passed down from Athens to Rome via Constantinople through to Bologna and Paris, is perhaps ‘propagandist’ (Cobban 1975, 22), or at least serves that function as it has been rehearsed for many centuries in defence of academic independence. Recent historical scholarship provides a more complex understanding of those events that brought the ancient world to an end and Western Europe to a beginning. What is not contested is that the

‘invention’ of the medieval university was made possible by the combined achievements of the Greeks, Islam and Latin Christianity (Cowdery 1998, 526; Grant 1996: 22-34).

The medical school of Salerno dates from around the mid 900s, but it is Bologna that is usually best remembered. It rose to prominence in the 1100s due to a strong reputation for Roman law, the result of which is that it became the centre of a historic clash over the teaching of civil law and canon law, through which secularism emerged as a political force. Bologna is seen as the archetypal medieval ‘student university’ where, from the start, student autonomy was firmly based on the ‘power of the purse’ (Rashdall 1936, 60). Tuition was provided on an early user-pay model: students paid teachers directly and they also elected rectors to form executive councils that issued governance orders, which kept teachers on a very tight leash. For instance, teachers could be fined for being tardy in their duties, such as being late to deliver their lecture, or for glossing too lightly over the syllabus. In time, teachers won more independence, especially as the state took a much larger role from the fourteenth century, but this was not before a ‘rich kaleidoscopic pattern’ of university organisation had been thoroughly tested. This ranged from extreme student republicanism to magisterial governance, and everything in between (Cobban 1975, 50-64). So the first universities were very much the earliest incubators and test beds for administrative organisational design.

Pope Gregory IX first used the term ‘*universitas*’ in relation to higher learning in April 1215 describing the ‘corporations of teachers and students’ in reference to a meeting in Bologna for the reading of a new work, *Rhetorica antiqua*, by the jurist Buoncompagni. Use of the term points to the existence of teachers’ guilds and ‘student nations’ that together comprised the university. General historical accounts tend to overlook the long and bitter struggle, including bloody street battles, behind the growth of student and teacher rights that marked the origins of medieval university autonomy, as discussed later (52-3,59) in this chapter. The success of Bologna led directly to the creation of ‘the mother’ of all universities in Paris (Ong 1958, 61) at the instigation of the Pope, who sought a ‘counterbalance to the jurist’s centre of Bologna’ (Pederson 1997, 145-3). This meant Paris had a status that was more uncertain and ambiguous than most: sometimes part of the church, and at other times an appendage of the state (Swanson 1979 cited in Lemay1982, 222-3). It was

this ambiguity through which the university also derived much of its initial leverage and the roots of its symbolic power.

The proposition here is that this three-way tension between religious belief, higher knowledge and political power was not a new feature of upper echelon authority in human society, even though it was perhaps more clearly delineated within an institutional setting. Evidence has been mounting that this trilateral configuration of social political power relations existed as far back as 3000 years in the earliest of literate societies in Mesopotamia, Egypt and Israel that were ruled over by educated elites. This is also evident for China, Southeast Asia and Meso America, suggesting that this is a universal characteristic of early urban society (Allen 2004; Baines 1983; Cahnman 1966; Hammond 1986; Lucas 1979; Sjoberg 1955, 1960). When human society began to evolve as an urban culture, living within built environments, using writing and administering an urban population, there also formed a hierarchy of skilled specialists, at the very apex of which were those who managed social and political affairs, usually with exclusive access to higher knowledge. Institutional education developed within this context of socially stratified urban existence. Moreover, city life tended to magnify ‘the interdependence, specialisation, and synergy of the different arts and sciences’ a necessary part of which was the creation of a particular ‘ethos of urban tolerance’ (Allen 2004, 235) which proved to be a cornerstone of civil society.

Section A

Early urban elites

What is known about early societies mostly comes from material artefacts, and this has influenced theoretical conceptions of urban development. Conventionally, cities are seen to have grown out of increases in trade, and by the consolidation of markets, rather than by any intellectual or spiritual endeavour. Weber’s well-accepted account of the emergence and spatial distribution of cities is based on the growth of surpluses arising from advances in technology, leading to the expansion in trade. However, Weber acknowledged that the economy itself was an insufficient single cause for city formation, and that a multitude of factors, such as fortification, courts, partial

autonomy and authoritative administration (1958, 81) all entered the equation. The Weberian approach was driven by a consideration of the material circumstances of agrarian labour as the starting point from which events began to unfold. This offered a departure from – and a clear rejection of – Marxian class analysis, as it looked at the interactions, or dialectic, between individuals and their immediate economic, political and social environment (Scaff 1984, 197) rather than some predetermined deep social structure.

This model dominates the analysis of urban expansion, and notwithstanding Weber's own reservations, there is usually a great emphasis placed on economic factors. But this leads to gaps and anomalies, such as the existence of political capitals that bear little or no relation to markets, and there are many examples of these, the clearest being the 'roving palaces of Egypt' and the 'disembedded capitals' of Washington, Canberra and the like. When central place theory is used to examine this problem, it is found that by and large, market-based and political hierarchies generally overlap and coincide in one location, but the location of political administrative centres is less constrained by economic forces, such as people invariably visiting their nearest marketplace (Blanton 1976). This points to 'hidden' factors in the emergence of cities: the social, the spiritual and the intellectual. These are explored in most depth by Sjoberg (1955, 1960), who more so than Weber examined the possibility of human universal imperatives having a major influence, suggesting that in pre-industrial societies educated elites invariably formed part of the ruling order. When thinking about the emergence of cities – as an essential precursor to the formation of states – it may be necessary, therefore, to build on the twin pillars put in place by Sjoberg and Weber.

Having said this, Sjoberg's approach was first made possible by archaeological evidence, particularly through the pioneering work of Gordon Childe on the emergence of civilisation in the 'fertile crescent' of the Mediterranean, which pointed to the centrality of writing. What leads on from this is that cities grow, driven by surpluses and technology, but these are also closely associated with skill specialisation, including the ability to organise a social hierarchy. This is consolidated by the additional time that can be invested in learning, at least among the privileged. So, in addition to size, the extent of public works, and other physical features, writing becomes an 'essential categorisation' of the city, and the nucleus of civilization, distinguishing it from other types of early settlements (Childe cited in Sjoberg 1960, 34-6). The practice of writing indicates the presence of *literati*, requiring a method of

education, a supporting political apparatus to ensure its hegemony, merchants, artisans, and a variety of servants providing goods and services. Those mastering the secret arts of writing and mathematics gained access to high office and were most conscious of their position. They invariably distinguished themselves in their manner of speech and clothing, often in quite exaggerated ways, to emphasise their elite status, which was displayed and reinforced through ritual and ceremony. At the same time, advanced learning had a practical emphasis, in order to meet the needs of the next generation of administrators. This reduced potential for ‘conflicts of principle’ between higher education and the rest of society, and in this way, the ‘integration of education and the state’ became complete (Pederson 1997, 4-6).

Educated elites managed the educational, religious and governmental structures, and the leaders of these hierarchies were reliant upon one another. What distinguishes these elites was that key religious leaders, who also served as astrologers or physicians, were also at times political leaders, and could double as educators. The educational apparatus was therefore difficult to separate from the religious, as the educational system was the mechanism by which the formal religious norms, sustaining the elite, were propagated (Sjoberg 1960, 119). Pederson notes that the Greeks tried to break this pattern and provide an education for all (apart from slaves and women) with the idea that all citizens needed to be prepared, and properly equipped to take part in the popular assembly. However, this was more of an ideal that co-existed with the reality of the continued existence of a scribal class (1997, 6). It was common in early technological cultures that higher knowledge symbolised membership of the ruling elite, and part of the function of the educated was to protect and preserve certain forms of knowledge. So for instance, higher mathematics, rather than the arithmetic of artisans, was generally associated with religious activity, for the use in calendrics and in the planning and execution of public works, such as the Egyptian pyramids. Sjoberg’s work points to ‘structural universals’ in pre-industrial societies and goes further to suggest that early cities all displayed a similar ecological form that shaped, and was shaped by, the sociological and political order, an idea that was rejected by Weber (1958, 19-41). The Sjoberg thesis was widely read and critically evaluated at the time, and in the intervening fifty years, it has undergone revision and testing in the field (Radford 1978), which points to a remarkably high level of fidelity within certain constraints.

The accumulating evidence shows that the presence of a scribal class was indeed a ‘central cohesive force’ in some notable cases, such as Mesopotamia (Lucas 1979, 305-6).

Furthermore, writing in general has not been found to be an explanatory variable in the success or failure of change in any individual society, or ancient civilisation. Rather, its impact was realised cumulatively over a much greater span of time, measured in millennia (Baines 1983, 599). This explains some of the initial doubts about the Sjoberg model, in that not all successful and prosperous pre-industrial cities, including some of those in the Central Andes, appeared to be governed by a literate elite (Adams 1961, 1107) in spite of their evident sophistication. Another major criticism has been that Sjoberg's model does not appear to fit those centres where a mercantile class dominated, and this criticism generally holds, in that over time, and in a great number of instances, mercantilism gained dominance, which was so clearly evident later in medieval Europe where expanding markets 'swamped the power of the nobility' (Blanton 1976, 258), and this is why both the mercantile and political aspects of city formation each need to be considered on their own merits, or in combination.

The key elements of Sjoberg's thesis stand: the structure of higher learning in early societies displays much universality, relating to the generation and transmission of knowledge, and in its relationship to the exercise of political power. Higher learning was a feature of social class and individual authority; its possession symbolised membership of a ruling class. These are social morphologies forged by the interaction of knowledge and power, and shaped against a backdrop of urban existence, and these, as Sjoberg argues, made pre-industrial societies quite distinct. It would be reasonable to expect that these morphologies would re-emerge and reassert their influences on the patterns of social and political relations down through time in the same way that material circumstances assert their presence forcing human adaptation, change and technological advance. In other words, similar social morphologies would be expected to exist, in one form or another, either as a carryover from the past, or as a response to the prevailing conditions of urban life.

Section B

The Greek Inheritance

Higher learning as conceived by the Greeks represented an evolutionary departure from earlier literate cultures in that a scribal class continued to exist, but it was not so exclusive. The written word was now much more freely available, which presents a significant material

change, allowing for the wider dissemination of knowledge. As a consequence, the Greeks began to think in ways that universalised, and ‘internationalised’ higher learning (Kerr 1990, 6), and this in turn tended to challenge the existing order and laid the foundations for greater mutuality between heterogeneous groups. This trend would become increasingly important centuries later as society became more mobile, geographically and socially, as it also became more centrally organised (Tilly 1975, 33). The creation of academies under Plato and Aristotle, and the speculative and observational methodologies they came to represent, marks the beginning of particular Western traditions in higher learning. For Plato, all knowledge derived from the imagination, and only that which could be imagined could possibly be true, leading on from earlier notions of the ‘unworldliness’ of higher knowledge. Plato opened up and provided access to the previously exclusive Pythagorean mathematics and astronomy, marrying his Socratic tradition of dialogue with his acceptance of geometry as a pure form of knowledge. The Pythagorean quadrivium encompassed knowledge of the speed and motion of the stars, geometry, arithmetic and spheres, and music, and by bringing these together in a poetic and practical manner, Plato created what might be claimed to be ‘the first university’, in terms of the first example in antiquity of ‘an institution with an education at once socially useful and generally humane in its aim’ (Pederson 1997, 12). For Plato, there was justice in the offer of higher learning in the sciences – at least for those interested – but this was not its sole purpose, ‘the object of education is to teach us to love what is beautiful,’ he concludes in the dialogue with Glaucon (Plato 1975 [c.375BC], 165).

The philosophical nature of the Greek dialogue strained under the task of incorporating new scientific knowledge, especially in medicine. In response, Aristotle went beyond theoretical reflection to combine speculation with sensory investigation, in order to uncover the laws of nature. He proposed that what is said (*logos*), is what is (*ontos*), thereby defining the *ontological* status of matter. Scientific truth could be assumed in the similitude of *logos* and *ontos*, and this notion of correspondence – although only nominal – provided a footing on which natural science could proceed, as a means of working towards scientific ‘truth’ (Allen 2004, 27-8). These foundations stood firm until being rattled by Enlightenment thinkers, such as Descartes and Kant, and were then more comprehensively revised in the face of evolutionary theory and quantum physics. Nonetheless, Aristotle’s approach to learning, as a union of teaching and research, became widely accepted. Much of Aristotle’s work, across the physical science and ranging widely into politics and psychology, set the course for inquiry within universities through the Middle Ages (Pederson 1997, 16).

The Greeks were the first to breathe life fully into the idea of knowledge bringing civility. The Greek term '*paideia*', meaning education, is synonymous with culture and civilisation, later Latinised by Cicero to the Roman 'humanities'. In principle, education was open to all members of society, as a right and duty of free citizens, which presupposed a view of society in which citizens were ready to take part in popular assembly when needed while the 'idea of a special class of administrators, by and large, was strange to the Greeks' (Pederson 1997, 6). Many of the traditions of dialogue between students and teachers, and festivals and symposia, that came to relate to the academic life, derived from these early Greek institutions. As physical institutions and symbols of scholarship Plato's *Academy* and Aristotle's *Lykeion* were the initial pillars of the ancient university, created in its fullest form in the university of Alexandria, the reputation of which is often overshadowed by the 'unsurpassed fame of Plato and Aristotle' (Argyle 1974, 348-50).

The Greek inheritance to Western culture was that education and civility could exist as one, and that this idea could be embodied in an institutional form. This more clearly defined the lines between intellectual knowledge and political action, so for the first time higher learning took exclusive possession – if not complete control – of the keys to 'forbidden knowledge', including Pythagorean mathematics. In becoming fully institutionalised, in a very concrete way, higher learning was also, to some degree, neutralised politically. There were now clearer lines of demarcation, and higher learning was one step removed from the execution of political power. While the Greeks institutionalised higher learning, the Romans brought a practical edge to these traditions, in order to build and sustain an empire that could be defended over vast distances, and could also subsume and administer different populations and cultures. Greek traditions flourished in Rome, but there were no new academies of the stature of those in Athens or Alexandria, and much less natural philosophy. Developments did occur in the theory and practice of building construction, architecture and law. As a result, Roman law became the bread and butter on which some of the early medieval universities would be sustained.

When Christianity swept across Europe, with the crumbling of the Roman Empire from around 400 AD, higher learning retreated behind the monastery walls of Benedictines. The Bible became the essential book of the Scholastic, the lessons of which were routinely taught in association with grammar, rhetoric, mathematics and

astronomy, along with the humanities as the *'artes liberales'*. In the absence of a dominant power in Europe, within a fragmented collection of unstable societies, there was no great impetus for advances in scholarship. The only international organisation of significance was the church, with the Benedictine order being the most important source of cultural policy. Father of the church, Augustine of Hippo (354-430) had declared 'faith as a form of wisdom higher than learning' (Augustine quoted in Allen 2004, 99) though he expressed his thoughts in tones coloured by neo-Platonism, broadly acknowledging that eternal truths could be derived from the sciences, and so reason was a source of truth along with Christian revelation.

Section C

Precursors to Modernity

The monastery became the 'seat of a regular life' and, as Mumford observed in 1934, there were at one point around 40,000 monasteries spread over Europe. This was where the desire for order and power, other than that expressed in military domination of the weak, manifested itself after the bloody confusion following the collapse of the Roman Empire (1967 [1934], 12), and in the lingering shadows of the Holy Roman Empire. The Scholastics believed in a harmonious universe, perfectly – and mathematically – ordered by God. This was reflected in their architecture, so the cosmological order was recreated in stone and mortar, and daily life was tightly regulated by the dong of the monastery bell. Whitehead suggests that this represented 'one long training in the intellect of Western Europe in the sense of order (1933, 14) and so became the mental preparation for the age of scientific rationalism.

From the middle of the seventh century, Islam was rising, after the journey of the Prophet from Mecca to Medina in 622, spreading over the Middle East, through North Africa and Spain, to become the 'middle way', both in territorial form and belief. It drew together the disparate cultural and educational forms of early civilisation: the alchemy of the Orient, the sciences of Persia, and the philosophical and mathematical lessons of Aristotle and Plato (Pederson 1997, 90). Across most of Europe, brutal violence, around the cut and thrust of feudal warfare, was the principal order of the day. Out of this mayhem Charles the Great (743-814), or 'Charlemagne',

consolidated power across the Frankish territories. Through a partnership with the papacy, his rule offered the first glimpse of enlightened public administration, with limited representative government and an education system that was free to ‘serfs and sons of freemen’ alike (Durant, 1950 online). Schools sprang up across the empire, with the palace school becoming the centrepiece of a ‘New Athens’ (Pederson 1997, 75-77). At its height, the Carolingian Empire was a loosely bound conglomeration of 600 to 700 rural counties spread over a vast area, but it proved to be only a very crude model for the modern European state. As an army leader, Charlemagne ruled by virtue of trust engendered by the territorial favours bestowed upon his warriors. In the absence of a strong central administration and systematic taxation, each local ruler, or count, filled the combined role of landowner, law enforcement officer and military leader, in what was a very ‘peculiar power configuration’ (Elias 1982 [1939], 16). The empire was largely bound together by foreign expansion and the sharing of the spoils of war, but when the returns from this began to diminish, the warrior aristocracy turned instead to domestic competition (Ertman 1997, 39-46). In the absence of a strong administrative core (Weber 1968, 969), this brought collapse in the early 800s, and the division of East and West Francia into what later became Germany and France.

The new millennium brought relative peace and economic progress spurred by advances in agriculture, such as the three-way rotation of crops, so that towns and cities could consolidate and spread. In Britain, successive waves of invasion by Romans, Vikings, and finally the Normans in 1066 had left a mixed Franco-British culture along with a form of Anglo-Norman feudalism that over time proved to be administratively ‘technically proficient’ (Fischer & Lundgreen 1975, 466). Across Europe, the stage was being set for the emergence of a unique system of Western states based upon ‘monopolies of force, taxation, solidity, interdependence and competition’ and involving large numbers of people in a way that was ‘unequaled in world history’ (Elias 1982, 244), and which in turn brought enormous demands for administration and law (Pederson 1997, 93). The emergence of the first universities at this time coincided, therefore, with growing prosperity and material advance. Increased trade and social mobility also brought growing demands from urban populations, not least among which would be the growing demand for political rights as former social and kinship ties began to fade (Tilly 1975, 35).

The monasteries remained the main centres for higher learning, even up until the 1200s, but they were now enjoying peaceful exchanges with Islam, and this preceded the great cultural re-awakening of the Italian Renaissance with Florence at the centre, and driven more broadly by renewed interest in the humanities (Rüegg 1996, 3-7). During this period of transition, it was students and merchants who were the most mobile and those most in need of legal protection as corporate entities. For their own protection, merchant groups, such as the *Universitas Mercatorum Italie Nundina* (Union of Italian Merchants), travelled around in armed companies, having together sworn oaths of loyalty (Pederson 1997, 100-1). Students had to make do the best they could, and in Britain, ‘fetchers’ were often employed to accompany groups of students on their long and perilous journeys to university. In France, to resolve their uncertain legal status, Emperor Frederick Barbaross (in 1155) decreed that travelling scholars would be legally protected in the places to which they travelled, lived and studied. Students were also given the prerogative of being judged, if found committing an offence, by either the Bishop’s courts or their own teachers – who after all were lawyers, and whose authority was equal to the Bishop’s (Pederson 1997, 140). The creation of the University in Paris, where canon law was offered free – at least for a time – helped to alleviate the terrible poverty among some students. The university’s early history helped to consolidate its power, and events there illustrate the kind of political leverage that the university would come to possess.

In the winter of 1228-9, a group of students had become embroiled in a fight at an inn, over a disputed bill, and local citizens rallied to drive them out of town. The students returned the next day with armed reinforcements and razed the inn to the ground, letting wine from the caskets flow into the gutters. The authorities were called, but the troublemakers had fled, so police then reportedly killed a number of students at random. After much wrangling and threats, the university disbanded and the students spread out to other centres in France and to Oxford and Cambridge. The university resumed in 1231 with the student and teacher corporations having successfully negotiated a number of key privileges, including the right to strike, and certain protection against imprisonment by the bishopric, which could no longer imprison one student for another’s debt (Pederson 1997, 172-3). The Pope further

decreed that no member of the university could be excommunicated without special permission from the Holy See.

The new rights and privileges confirmed similar rights established in battles in Bologna, and other centres. Paris was simply in the vanguard of this broader movement, which over the following centuries enabled universities to become key institutions while the dominance of the church waxed and waned. This was highlighted by the central role played by the university in helping to resolve the Great Schism that began in the late 1300s, and lasted into the early 1400s, with the election of rival pontiffs and which led to the university winning greater freedom. The university was called upon to examine the theological error that led to this state of affairs, but it was also able to eventually convince the crown of its authority as the best adviser in this matter. So at the height of the schism, it enjoyed great stature as the 'sole surviving international and supranational grouping' (Swanson 1979, 204) even if this declined somewhat in the latter stages, when the economic realities of church patronage once again became a factor in its position (Lemay 1982, 225).

As common wisdom often suggests, the revival of Platonic humanism, and its rising influence in Europe, came out of those Italian cities claiming to have schools that could trace their inheritance to antiquity, though modern scholarship shows the story is more complicated. Apart from the rising demand for civil law in Bologna, there was growing demand for medical training in these areas of mixed culture 'influenced by nearby Islam, Jewish schools and Greek populations', particularly around Salerno and Montpellier. Through Arab texts, these centres of learning developed a synthesis of Hippocratic, Galenic and Aristotelian observation (Pederson 1996, 125). The rediscovery of Plato's original texts, and the growing challenge to absolute papal authority, led to a consolidation of humanism in the 1300s, coinciding with an epochal shift, as history was being perceived to be less at an end stage but in the process of transition. This gave some certainty to the idea of a 'secular future' built upon the 'horizontal' spread of knowledge that could now come from a wider world perspective. Scholars could draw on the lessons of Rome and Greece to formulate their own ideas, among them Machiavelli, who launched his bid to save the republican constitution of Florence by popular militia, using strategies handed down from the ancients. The adaptation of Ciceronian dialogue was used to suggest that there were no

longer 'eternally valid' forms of knowledge, and a scholar could thereby become his own 'cultural self-consciousness'. Teachers and scholars came to see themselves as members of a republic of learning, as 'equal interlocutors' with the ancients, along with cardinals and statesmen (Rüegg 1996, 5-6,30-1). Within the culture of the university was also nurtured the seeds of scepticism that would later take root and spread with the Scientific Revolution.

As part of this changing environment, the printed word became the new common currency of the intellect. In the same way that the Benedictine monastery created a physical template of regulated urban life, the printed word created the cognitive medium through which humanism could spread and consolidate a secular urban existence. The invention of the Gutenberg Press in 1450 was the catalyst that intensified the rate of change by making secular knowledge more accessible and widely available so that new ideas and public debate could flourish. Mechanical printing had developed in other parts of the world, in China, Korea and Turkey, but had always involved the use of whole words rather than alphabetic moveable type (Ong 1982, 118). Moreover, never before had the intellectual and social environment been so ripe with possibility. The dominance of printed text over what had been essentially oral culture represented in manuscript form began to transform the nature and substance of ideas. The printed word was now a commodity, and the book was 'less of an utterance, and more like a thing' (Ong 1982, 123-34). Printing encouraged a sense of closure and finality; the feeling of private ownership and authority over words, and this was embodied in the textbook, which suggested that knowledge was now less discursive and disputational, but a matter of fact. This capture of 'typographic space' was profound in its impact on the philosophical and the literary imagination, in that ideas had a new solidity, and could be readily transmitted. Empirical reasoning could now progress at a much faster rate, drawing on a much wider base, making possible the rise of experimental science. The cosmological order recreated in the urban spaces by the Scholastics could now be more easily represented within a world of print and routinely reproduced. It is interesting, however, that the first mass product of the Gutenberg press was the Bible, so at this time, when the world of ideas was shifting on its axis, orthodox thinking was still firmly religious.

It is not surprising that it was religious exile that spurred the rise in student mobility, beginning with Greek and Jewish exiles before the fall of Constantinople in 1453. Student movement all across Europe grew from the 1500s, helping to make humanism a European-wide phenomenon, and a central force behind the creation of a new political ethos. The printed word was soon the predominant means of academic communication, leading to a cross flow of ideas and exchanges, and shared ideals associated with civility and culture. The steady growth in the natural sciences meant that students now needed to read across a wide area, and while law held solid career prospects, literature and the natural sciences were seen to shape the 'universal man' of the Renaissance. Students might study at three, four, or up to eight institutions, seeking out the best teachers. This internationalised the sixteenth century university, although, there were occasions when rulers would intervene, usually to prevent entry by foreign students for 'fear of religious and political contamination' (Ridder-Symoens 1996, 419-20), and this would occur more and more with the rise of nationalism.

The reformist zeal of the German Empire meant that its universities became especially popular, particularly Wittenberg. Anyone of the reformed faith wanting a humanist education in literature and theology now sought an education in the universities of the Empire, the result being that 'northern, central and eastern Europe were evangelized by alumni of Wittenberg' (Ridder-Symoens 1996, 422). By the middle of the sixteenth century, in Leipzig for instance, around one-third of all registered students were foreigners. Many universities gained some advantage purely from their geographic location near borders, attracting large numbers of students. So for instance, Salamanca University could almost be classed as a Portuguese school because so many of its students slipped over from neighbouring Portugal (Ridder-Symoens 1996, 422). Conversely, some universities lost their international clientele as the church insisted on students 'swearing fidelity' to the Holy Roman Church, preventing the entry of Protestants, as was the case in Bologna, Rome, Ferrara and Perugia. Something similar – though in reverse – occurred later in Britain when, under the Tudors, Catholics were shunned by British universities. From an early period therefore, the essential character of universities could be seen to vary greatly depending upon their institutional setting. So the University of Paris, for instance, was far more ecclesiastical than the more secular Bologna. Much clearer, more permanent

distinctions then resulted from the Reformation, which split the predominantly Protestant regions and those that were essentially Catholic (Kerr 1990, 4).

Section D

Absolutism and Interdependence

From the middle of the thirteenth century, Europe became increasingly dominated by court society as the central stage on which the anarchy and violence of feudalism would gradually give way to a measure of restraint and tolerance. Court society was central to the rise of absolute monarchs whose role was critical to the social consolidation and integration needed for the formation of the state system. Elias (1982) argues that a large part of the ‘civilising’ process at this time related to the intelligent cunning displayed by some rulers who were able to deftly consolidate and centralise power by balancing the interests of the rising educated bourgeoisie against the decentralising tendencies of territorial feudal lords. With the rise of the monetary economy, taxation was now used systematically as a ‘symbol and a weapon’ (Baun 1975, 244) by monarchs as they accumulated wealth and captured the benefits of advances in military technology. In the process, they created standing armies, and former knights were often their officers. However, the process of social change and integration demanded a delicate equilibrium between competing groups at all levels of society, and out of this grew ‘chains of functional interdependence’ (Elias 1982, 165) as the lines of difference between friends and opponents, former allies and enemies, became necessarily ambiguous, blurred and changeable. At the same time, the raw impulses towards violence were gradually contained and tamed into more calculated actions, which fostered self-control, self-reflection and rationalisation. These trends coincide with the growth of the university, which by this time was at work producing a new bourgeois class, replete with ‘princely bureaucrats’. The university and the court worked in coalition as the centres of ‘style setting’, and this was especially so in Protestant regions, most notably in Germany, and later in the Romantic and Catholic regions (Elias 1982, 5).

In this way, the ideals of humanism became more solid, forming the connective tissue that penetrated through the layers of society. While the court was at the visual

centre of this transformation, the university was a generative force, providing both the instrumental capacity to make change possible, and the necessary mediative symbolic power, and sense of purpose. At the height of the European Renaissance, scholars would talk about their loyalty to the humanities before that of the state (Rüegg 1996,7). As secular knowledge gained currency, ‘princes, magistrates, churches [and] all those exercising authority’ developed a direct interest in ‘their’ universities, which now attracted regular financing and increasing autonomy in spite of growing church authority (Delanty 2001, 110-35). Teaching was primarily concerned with the *artes liberales*, not so much as a system of knowledge as a humane framework conceived in terms of the ancient model of liberating the free individual, and so scholarship and wisdom, ‘*eruditio* and *sapientia*’, guaranteed a more civilised ethical mode of behaviour (Hammerstein 1996a, 115).

The spread of humanism, along with a sense of universalism, was at its highest point from the late 1500s when the ‘Grande Tour’ was becoming part of bourgeois life as students began to flock to foreign universities. German and English students in particular, conceding a need for refinement, found their way to Italy and France. By the 1600s, the routine education of aristocrats, members of patrician families and the upper middle classes usually entailed preparation for civil service and diplomacy, including a period of international study. Those who had failed to pass their degree could travel to a foreign ‘graduation university’ to obtain their doctorate for a fee (Ridder-Symoens 1996, 433). France, Italy, England and the (German) United Provinces were the favourite destinations where foreign students were well received, and often invited to join a special register, such as that offered by the German nation in Orléans ‘for honour and posterity’, the German nation in Italy, the Polish nation in Padua, and so on. It became common practice to sell degrees at the University of Orléans, Bourges, Angers, Caen, Reims, Orange ‘and many more’ (Ridder-Symoens 1996, 433-4). In some instances, graduation universities would matriculate students one day and confer degrees the next. The predictable outcome of this early academic tourism was that standards in many universities collapsed, and in some of the best French institutions, standards fell so low that those seeking a reputable degree would need to go elsewhere. Foreign students often became the brunt of jokes: ‘*accipimus pecuniam et mittimus stulto in Germaniam* [we take their money and send them off to Germany as ignorant as they came]. Some students were attracted to universities that

were easygoing or demanded low fees, which was a large consideration given the rising costs of university awards at the most reputable universities. During the seventeenth century, the costs of a doctorate in medicine at the University of Paris (as much as 5000 *livre*) greatly exceeded the lifetime savings of a skilled craftsman (around 500 *livre* a year). Someone on a low budget might therefore go off to Gandía where a bachelor's degree in civil or canon law cost a mere 33 *livre* (Ridder-Symoens 1996, 432-4).

By the end of seventeenth century, the golden age of intellectual openness was drawing to a close, giving way to rising nationalism and insularity. Student mobility was sometimes limited because of the growing demand for professionals to serve specific state needs, and students often had to present local qualifications for jobs, or sit national exams. After centuries in gradual development, the age of bureaucracy had arrived, and the total number of civil servants in France could now be counted in the thousands though the number of senior officials, more likely to hold university degrees, is estimated have been around six hundred and fifty. Although not so centrally organised as in France, a comparable number of civil servants existed in Britain (Fischer & Lungreen 1975, 460-2) while the Prussian state was now developing into a model of 'bureaucratic absolutism' (Ertman 1997, 319).

The various modes and styles of political participation across different countries were clearly apparent by the 1600s. Political representation took on a very different hue, depending upon the regional or national context, and the overall pattern that emerges coincided with the remnant political infrastructure left in the wake of the Roman Empire. Ironically, those regions that had been most Roman were often the slowest to adopt Roman law. Deeply ingrained vestiges of aristocratic rule throughout the former Carolingian estates of France and Germany remained hostile to the emergence of the centralising authority of the monarchs. As a consequence, those areas that were less Roman – Britain, Scandinavia and east-central Europe – were more likely to adopt constitution law as a basis for cooperative relations between provincial assemblies and central authority (Ertman 1997, 318). The outcome of this can be seen in the contrasting developments in Britain and France, which typify the development of the Anglo-Saxon versus the Roman state model (Tilly 1975, 33-5). Britain saw the development of local shires involved in judicial, administration of

public affairs through juries and courts, and these formed the basis of ‘shared rule’ within Britain’s style of constitutional democracy. Weber argues that these strongholds of ‘self government’ saved Britain from the ‘bureaucratisation that was the fate of all states on the continent’ (1994 [1919], 328). In France, political participation was developed through Estate Generals, whose control over local administration and finance was more in the mode of protecting private interests, and defending aristocratic rights and privileges. As a consequence, their participation in national representation proved to be weak as it was ‘largely ignored’ by the monarchs (Ertman 1997, 77-86), ultimately leading to a more centralised parliamentary style.

Following the Thirty Years War and the signing of the Treaty of Westphalia in 1648, the system of national ‘sovereign’ states defined by territorial boundaries was established by international agreement, and this model of the state set the pattern for the rest of the world. Coinciding with these events, the idea of the ‘nation-state university’ began to emerge as the instrument through which patriotism and citizenship would be engendered, along with an emphasis on national histories and ‘sanctioned ideologies’ (Kerr 1990, 7). National higher education systems developed distinct cultural styles, and these remained relatively unchanged until the end of the 1800s when social and political upheaval would again transform the university landscape. It is argued later that an analogous process is underway in the Asian region, with the growth and consolidation of national systems of higher education and the emergence of the ‘networked university’ (Case Study 1).

Section E

The Symbolic Power of Higher Learning

In those early days of medieval Europe, it is clear that student life would have been precarious, considering that young scholars had to make long journeys by foot just to take up residence at university, or in a university town, where they would then seek out a teacher to matriculate them. Once at university, they could find themselves thrown into a street battle given that ‘riots between students and citizens were perhaps the most distinguishing feature of student life in the Middle-Ages’ (Pederson 1997, 56). As lowly members of the church, students faced severe constraint; they were

unable to work even part-time, but were rather forced to ‘take alms’, that is beg. To own a single book would be a luxury, and attending class would normally mean sitting upon the floor, or perhaps some straw bales in a dimly lit room, given that glazing was then still uncommon. The new commitment to this student life was, however, ceremoniously acknowledged usually at the insistence of those more senior, but it was the new ‘freshmen’ who would be obliged to pay for these welcoming festivities. Some kind of initiation ritual was common, such as a ‘dehorning’, where a newcomer was symbolically welcomed into the civilized world, by having his ‘wild horns’ of childhood ceremoniously removed. Graduation time also called for much ritual as it still does. Medieval medical students in Salerno, before receiving their doctorate, were obliged to kill a bull and write their own name in blood on a passageway wall (Frijhoff 1996a, 355-8), so literally gained a rite of ‘passage’. Rituals that mark the stages of university life are still common, and are part of the great mythic memory of the university. However, their meaning is now more often forgotten largely due to the fact that the whole ‘symbolic dimension of university life’ is an area of sad neglect (Harman 1989, 31-3). Why this is so may be partly due to the key contradiction facing the university, and this relates to the neglect of its civil purpose (Chapter VII).

The earliest rites of passage were the crudest expressions of the symbolic role of the university as an institution, serving to bring order and meaning to individuals and society. Moving through university was as much about passing through a stage of life as obtaining qualifications. Young scholars ventured from home as early as around fourteen, spent six years of bachelor studies, and then perhaps moved on to higher specialisation. Ideally, the graduation age was 24, the legal age of attaining adulthood under Roman law. In some instances, students lingering beyond that age were qualified without examination. This was universal, as obtaining a degree was statutorily linked to the duration of studies, and this was more important than the level of qualification acquired (Frijhoff 1996a, 360-99).

By the seventeenth century, the symbolic importance of the university was in some areas equal to, and perhaps even greater than, that of the church. It was providing a civilising function in the fashion of a ‘secular church’, performing important rituals that marked critical life-stages, and in this way it provided the passageway for individuals to achieve a form of ‘nobility’ by qualifying as a

professional. By this time, a doctor of theology had equal authority to the bishop, and so was neither answerable to the church nor civil authorities. The state and university existed within an equilibrium of mutual trust and mistrust, and across different jurisdictions and regions, this led to various formulations as to who had the right to provide access and who had the right to examine (Ridder-Symoens 1996, 436-41). These arrangements would vary, depending upon the national institutional context. In general, however, theology was the most highly ranked discipline, so normally took the longest, and next in the hierarchy were medicine and law.

Higher education was essentially an ‘aristocratising’ process that created a class of ‘demi-noble’ professionals who were often expected to provide free services to the poor in return for their special liberties and privileges (Frijhoff 1996a, 399), and this ennobling capacity of higher learning was particularly important in communities where social status was equated with authority. This gave professions a large measure of autonomy and discretion, which in time proved to have great functional significance. For example, in some fields, centuries passed before the application of theoretical knowledge, gained at university, was put to any practical use. Lawyers would study Roman law or canon law, though neither of these necessarily bore any immediate relevance to the local, feudal law that they were required to practise, usually in the service of bishops, kings and princes for whom they would often serve as councillors, judges and civil servants. As lawyers worked in one country after another, and across the various legal systems, their theoretical knowledge ultimately proved useful in codifying feudal laws, bringing them into international harmony. Those trained in medicine, while gaining intimate knowledge of anatomy, were restricted in what they could practise. They were able to provide remedies, dispense herbs and give advice, but it was the skilled surgeons, who trained separately under the guild system, who performed the technical manual tasks needed for operating. It was also the case that physicians were often high-order clerics and they were, therefore, forbidden from performing operations involving bloody incision (Pederson 1996, 455). It was more generally the case that the special privileges and freedoms enjoyed by the educated elite, as much as they were no doubt abused, had certain practical outcomes that were unlikely to be apparent during a single historical period, but their functional importance came to be realised over a much larger time scale. At one level, they helped to preserve and transmit traditions of universal knowledge,

creating a more unified worldview, which nurtured tolerance. At a more practical level, as was demonstrated with law, they provided a common ground on which heterogeneous groups could cooperate.

In fostering a sense of citizenship and civility, the humanist tradition inspired faith in secularism and autonomous human capability. The symbolic power associated with this was realised in the way universities were instrumental in helping to create fledgling states. It was no mere coincidence that the rate of new university foundings between 1200 and 1800 was closely tied to territorial claims of sovereignty (Riddle 1993). The foundings occurred least where there was a single relatively uncontested authority, with little local competition, and most often in highly decentralised regions characterised by a large number of claims to sovereignty, the reason being that ‘universities emerge and expand as both instruments and symbols of political authority’ (Riddle 1993, 59). Intermediate to high rates of foundings occurred where there was a multiplicity of local and provincial claims to authority within a bureaucratic state. Riddle contends that this historical relationship is not easily understood from ‘perspectives that draw attention to the functional role of universities, or the relationship between universities and economic stratification or economic interests’ (1993, 58). Rather, the pattern supports the interpretation that the emergence, growth and development of the nation state university was very much in the context of an emergent secular political order.

At the height of its powers, the boldest claim the university could make was its grasp on the workings of the universe, or the ‘cosmological order’, and this in turn fed into its growing reservoir of instrumental capacities. The cosmic order divined within the university, as handed down from ancient texts, was symbolically reinforced at every level of society: at the individual level, through lifecycle ceremonies and rituals, at the social and administrative level, by inducting and anointing a new class of nobles, and, at the very highest level, by endowing upon the state the symbolic legitimacy needed to reinforce its claims to sovereignty. The integration of the universities into the everyday routines of political and administrative life meant that by the 1500s and into the 1600s, the transformative force of humanism was reaching its peak. Financial support had increased as ‘princes, magistrates, churches, all those exercising’ power had developed an interest in ‘their’ university, which as an entity

was now becoming more local in character, often at the cost of its supranational external influence. It was also increasingly part of the political order, not only as a symbol of legitimacy, but as the embodiment of authority in association with the church and the state. One consequence was that the humanist ideal, now often a servant of both the political and university establishment, was losing its 'vitality and credibility' (Frijhoff 1996b, 43-6).

The decline of humanism as a transformative force became increasingly apparent under the absolute rule of the monarchs. In Britain, when the Tudors centralised power between the crown and the church, Oxford and Cambridge, which had been self-governing bodies, were subsumed into the state. In 1604, each were given two seats in Parliament, which then moved to set entry conditions to exclude Catholics. While the universities tended to stagnate, as scholars were now unable to present alternate views and had to contend with reproducing the traditional prescribed ideas, it was not surprising that: 'Cambridge, which was less Anglican and less Royal than Oxford, managed to surpass Oxford in academic quality under Elizabeth' (Hammerstein 1996a, 136). Both universities were, however, subject to criticism by academic reformers, as each became increasingly hereditary, and subject to the Royal patronage under the ubiquitous influence of 'ecclesiastical families' (Hammerstein 1996, 136-7). In Prussia, higher education was also becoming enmeshed with the state. From the late 1600s, Frederick the First, King of Prussia, sought to completely nationalise and professionalise intellectual life through a set of reforms that were often supported by leading scholars of the time (Frijhoff 1996a, 372). The Prussian university, while it had been a beacon for the early reformist scholars, was now a spearhead for the bureaucratic state. Under the reforms, lawyers and other officials entering state service faced a system of state entrance exams, as well as those of the university. The state also sought to control admissions, a move that eventually led to a process of 'bifurcation' (Frijhoff 1996a, 372-3) within the system itself. More significantly, the blend of German idealism and officialdom, at the time associated with the rise of a German national consciousness, ultimately led to a 'rejection of Western political and moral modernity' (Herf 1994, 118). It was not until the end of the nineteenth century that the Prussian system would be comprehensively revised, under the newly consolidated German state.

Discussion and Conclusion

The Greek ideal of participatory democracy steadily gained in substance from the time of the monastics through to the eventual creation of the Westphalian state system. The intervening period trained and shaped Western sensibilities and created the necessary physical, social and cognitive conditions, which meant that Platonic ideals could be tested, refined and developed on a much grander scale. The university was the symbolic centre and power generator within this process, defining and maintaining social order, and keeping separate what was mundane from what was to be reified and venerated. Higher knowledge was now thoroughly institutionalised and socialised and brought meaning to the idea of participatory citizenship, albeit subject to the munificence of an educated elite and the vagaries of local custom and regional circumstance. More significantly, the morphological features that distinguish the role of higher learning within the upper echelon of political authority showed remarkably little change down through the ages.

The entire period from the 1200s to the 1800s shows how the European university rose in symbolic and instrumental importance, not only through the leverage gained by the decline of the church, but as part of a unique series of developments, which also conspired to create the modern state system. The university of the Middle Ages and the secular state emerged fully together through a process of interdependent, interlocking steps, and not independently through an accident of history. In this way, politics and higher learning, while they represent separate endeavours and different forms of logic, are closely intertwined; their relations form a dialectic that can be simultaneously complementary and contradictory, yet remain closely bound. Their activities can merge and push apart, but their fortunes are shared, and this is due to the fact that the same material conditions that brought the secular state into being also shaped the university. The structural imperatives that help to guide this process can be traced back to those same factors that shaped higher learning in ancient scribal cultures.

These empirical findings point to larger theoretical issues; they suggest that political structures, and the norms and values they embody and propagate, may be shaped and articulated as a result of interactions between society and its material circumstances. At first sight, this conflicts with the idea that moral purpose derives from an innate human sensibility, as suggested by Habermas (1972, 194), due to deeply embedded anthropological structures that guide human evolution. Instead, what is suggested here is that even if these innate sensibilities operate at some level, they are mediated by the ongoing interactions of human society and the material world, including the artefactual and technological world humans themselves construct. This does not suggest that these circumstances solely govern human values. Rather, it appears to be more of a case of Weberian ‘network causality’ (Scaff 1984, 203) being weakly steered. That is, deep-seated moral intuition may exist, but it becomes entangled with the plurality of factors that come into play, tending to act more like faintly guiding shadows that bump up against other influences, including all that has happened in the past, and the contingencies of the present.

So in the first instance, intuition may drive impulse, such as the desire to gain higher knowledge to bring order into the chaos of the world, or the need to embrace tolerance and social harmony as a matter of survival. It would be more difficult to argue, on the evidence, that these impulses directly shape, define or structure forms of political organisation that appear as reiterations through time. These structures do, however, clearly reflect the highly stratified hierarchical structure of urban environments, which represent a constant. These material circumstances create problems, by generating utilitarian benefits and demands that are often unevenly distributed, and this demands normative responses. In this way, modes of social and political organisation become reinforced and reiterated. It might well be the case that human society, where it does have an innate moral capacity, is best considered in terms of ‘receptivity’, that is, how it responds to these utilitarian demands in ways that can ultimately progress towards a higher moral plane.

It is not possible to resolve these issues within the scope of the above discussion, and these concerns will be taken up in Chapter III. However, it is plausible to conclude that the weight of evidence supports a thesis of substantive pathway dependence. The imperatives of the past clearly have a habit of pressing down on the

present, and in much more than purely a material sense. This is shown at every step in the origins of the university and the formation of the secular state, justifying a method of inquiry that asks: 'if something is new how did it arise out of the past? For new things rise out of the past as surely as old things do. There is nowhere else for them to come from' (Ong 1958, 6).

The secular state and the European university arose from a shared beginning. They were spun from the same threads, woven together from the emergence of humanism, fuelled and consolidated by the 'rationalising techniques' of more systematic public administration and taxation (Weber 1968, 969) through to the technological advance of mechanical printing, spread across the physical, social and cognitive spaces of Europe. This created dense layers of urban existence as the connective tissue of humanism penetrated society, consolidating and helping to make possible greater interdependence and tolerance. Humanism brought with it a new sense of citizenship and civility, and higher learning provided the human capability and symbolic power that was central to the creation of new states and the generation of a new secular order. In the much broader scheme of things, however, the new political order was not entirely new at all, but the articulation and evolution of the pre-existing order that showed clear traces of a more ancient morphological structure; the presence of a ruling educated elite, claiming privileged access to higher forms of knowledge, which in turn provided this group with legitimacy and political authority. Moreover, this elite would distinguish itself symbolically, and through ceremony, as the outward expression of its privileged access to the 'cosmological order' through which it laid some claim to high authority.

The intermingling of leadership roles and power sharing between religious leaders, teachers and political rulers in scribal society had become separate activities with the creation of the Western academy. Where the very critical functions of higher learning were once performed within the shared space of the sacred and the political, the university was now less able, as an institution, to make claims over these domains. But those aspects of its ancient nature lingered; like vestigial organs they continued to reside in the institution's mythic memory and in tradition. As phantom limbs, they continued issuing pain from ongoing institutional boundary conflicts (with the state) and epistemological war (with faith). Where the university could continue to make its

boldest claim was over the power to grasp the cosmological order: the structure and workings of the universe. This was reinforced and reproduced within ruling elites through ceremony and ritual, and at the social and administrative level by inducting a whole class of ‘demi-nobles’.

At the highest level, it provided the state with the instrumental power, and the legitimacy, to claim sovereignty. In this way, the state drew on the symbolic power of the university, and through it, became an earthly representation of the cosmological order. Meanwhile, the instrumental power of higher learning, in providing universally coded knowledge, including Roman law, provided the necessary basis for civil affairs to thrive. However, when the secular state consolidated power, and became more entrenched, self-referential and oligarchic, the less reliant it became on the external legitimacy provided by the university, and was more inclined to use the university as an instrument of political power, rather than a source of symbolic power. Lines of demarcation that had developed, distinguishing the university from the state, regarding matters of access, quality standards and the institution’s ability to define its own purpose – summed up in the word ‘autonomy’ – were now broadly contested as the state attempted to colonise and contain the university. This pattern became more evident throughout the 1500-1600s in Britain and on the Continent, creating an environment of disequilibrium that would come to a head in the 1800s.

The medieval period shows how the combined symbolic and instrumental power of the institution helped to create the state, enabled it to function, but also served in generating and facilitating constraints on state power, not least of which was through growing political organisation and representation. In this regard, the university was pivotal, and also mediative, in the civilising process. When the university was at its highest point, enjoying a symbolic status equal to and even greater in measure than the church, the state readily drew upon this stature for its own legitimacy. At the very same time, the more the university became socially enmeshed and came to embody authority, it also became increasingly vulnerable and fallible, open to the corruption of the market and ideological capture in the web of oligarchic state power. The rising symbolic power of the university was for the most part circumscribed by established authority, while the rising authority of the secular state was initially heavily reliant upon the symbolic and instrumental power of the

university. This set of mutually dependent relations became increasingly dense, ambiguous and variegated through time, very much in the same manner of all relations within civil society. However, what this discussion has shown is that the relations between the university and state were at the epicentre, and at the symbolic heart, of those events that unfolded to bring the modern state into being. Moreover, the structural imperatives that brought these relations to centre stage have a powerful tendency to persist. As a consequence, these relations fully represent, in microcosm, the larger and more complex power relations that exist between the state and civil society as a whole. In essence, this gives meaning to the claim that the university is foremost a ‘civil’ institution, neither part of the state, nor separate from the state. It exists in relation to – and in large part defines – the secular state.

* * *

Chapter II

Shaping Public Knowledge, States and Empires

Introduction

The rise of the modern research university and the proliferation of other forms of higher learning were intimately tied to the consolidation of the European system of states, and what grew into imperial competition among nations. A close association between the university and growth of nation states, as demonstrated in Chapter I, is not generally contested. What is rarely acknowledged, however, is the formative role that this may imply for higher learning, which becomes evident when examining the evolution of the state over a wide sweep of history. Moreover, this points to a binary link between the role and function of higher learning and the evolution of the state, raising the question: to what extent is the continued articulation and definition of the secular state reliant upon the university and how it functions? What are the linkages and types of interaction between these entities that might determine the shape of the state and the role of citizenship? The proposition put here is that these questions need to be considered within the context of particular national systems, as these linkages depend upon the configuration of feedback paths that support the deep cycles of university-state relations, through which the agency of human knowledge interacts with the structure of political organisation.

From the previous discussion, it is clear that the linkages between knowledge and political organisation do not operate in a direct manner, but are more often muted by myriad factors feeding into the process of historical change. For instance, the impact of writing, and later printing, provided useful analogues, illustrating how human knowledge and technology have a cumulative impact that is not always immediately apparent, and certainly not always considered significant, within a particular epoch; that is, they do not take a causal role on the stage of historical events. Yet it is clear when taking a long historical perspective that knowledge and the technology it comes to embody assert causal influences by forming the material context in which events take place. Knowledge forms an essential part of human action that shapes structural conditions, and is in turn shaped by those structures, so it exists within the border zones of agency and structure. It is this interplay between agency and structure that shapes events, bringing about new structural forms from antecedent influences and conditions, or what might be termed ‘morphogenesis’

(Archer 1995, 2000). An immediate objection to this kind of thinking might be that it runs the risk of conflating agency and structure. This distinction can be maintained, however, by using certain constraints beyond the commonsense condition that human agency tends to mostly relate to human action. Other necessary conditions are that structure predates the actions that transform it, and, that structural elaboration necessarily post-dates those actions that have transformed it (Archer 1995, 157). So for instance, at some point, human actions may employ a new technology with dramatic causal impacts upon historical events – such as was evident with the arrival of gunpowder, saddles, systematic taxation, mechanical printing and so forth. That technology, in a particular time and place, helps to facilitate human action leading to the alteration and elaboration of structural conditions, and is therefore inseparable from human agency. However, as that technology, and the social and political interactions it generates, becomes embedded and reproduced as part of the social order, it becomes part of the structural conditions. Nonetheless, the effects of that technology, and the human knowledge that it embodies, continues to accumulate as it shapes the material circumstances through which human actions are played out.

Western traditions of higher learning provide an elemental form of structure; traditions of scholarship, shared methodologies, paradigms and frameworks have created the disciplinary boundaries, and structural conditions, through which higher learning evolves as a human institution that co-exists, and resides within, the physical structures of higher learning. The traditions of inquiry light the pathway for the generation of advanced knowledge, leading to new human insights, capabilities and technologies, which then become instrumental in human action. However, this knowledge also becomes socially and environmentally embedded as it shapes the surrounding social and political institutions, including the administrative body of the university itself. Depending on the political and institutional context, this can, in turn, influence the different ways in which scholarly traditions are pursued, and new knowledge and human capabilities are regenerated. This then is a continuous feedback loop in which knowledge is transformed from agency to structure to agency. However, by most conventional historical analysis, knowledge, if considered significant at all, is normally confined to the way it extends human agency, within a confined period, but this is inadequate as it only captures fragments of the larger picture. Moreover, it leaves out the way in which emergent social and political

structures represent embedded knowledge that reflects particular traditions and their wider institutional context, which may in turn influence and constrain the way in which new knowledge is generated. This thesis argues that these processes are part of a continuum that runs through the long history in which higher learning has played a role within human urban existence, and that it is necessary to take a wide historical perspective in order to trace the outlines of this evolutionary process. But there are instances when the causal links between shifts in human knowledge contributing directly to structural change are more obvious, and this was the case with the industrial and political changes that flowed from the Scientific Revolution. The dramatic change that took place in human thought, at this critical juncture, echoed and reverberated in the form of massive social change and revolution that then swept over Europe, sending waves out across the inhabited world. From the preceding discussion (Chapter I), it is also clear that these developments were part of a developmental process that is evolutionary in nature and grows out of the cognitive, social and material conditions previously elaborated.

The growth and spread of higher learning, and the increasing specialisation of knowledge accommodated and made possible by the academy, was central to the elaboration of what became a global system of states. In theoretical terms, the proposition here is that there is causal regularity in the role of higher learning: it served the same function in this reiteration of the state, and creation of the ‘system’ of state, as it had done in the process of state formation. However, the strength of this hypothesis cannot be established without dismantling the fallacy that the Enlightenment was inspired and achieved by efforts from outside the academy rather than resulting from changing ideas within. Similarly, it is important to recognise that subsequent demands for civil rights were associated with the role of the university as a reservoir of analysis and critical thought. It will be argued that the university was not necessarily an advocate for change, but it did provide the intellectual infrastructure and the learning traditions that underwrote those changes, and so its presence as a historical actor is easily overlooked. The larger significance of this function is also diminished by the misconception that the university is largely the product of a fixed historical period – with its vestigial ceremonial and cognitive trappings – rather than an enduring institution that is home to a human impulse towards intellectual inquiry and transformational change. This misconception

devalues the civil role of higher learning as a critical element in the evolution, and articulation, of the secular state. Establishing the continuity of how the state formed in association with higher learning is central to the idea of co-evolution and structural co-dependence, each reshaping and redefining the other within a dialectic process, to produce morphogenetic change. The idea that university traditions can be traced to the early Middle Ages and became exhausted only to be revised and renewed due to external pressures is a powerful myth, largely because it contains small grains of truth. But it is a fragment of the story, and its use served a propagandist agenda, both outside and inside the university, driven by the genuine need for university reform.

Claims for the ‘monastic origins’ of the university, evident in the cultural practices of conferring degrees and honours, the conduct of highly ritualised ceremonies and the shared ‘belief in harmony and notions of faculties of knowledge’ (Delanty 2001, 29) point to a commonality of purpose, predating both church and university as institutional forms. The relationship of higher learning to monasticism is as much of a rival sibling nature, as it is parental, as it is ambiguous and unique in form. The two seek coherence: one predominantly through a spiritual connection with the universe, and the other through the intellect. Both seek universal goals that can, and often do, share similar immediate objectives, but as society became more complex, and more specialised, faith and learning became increasingly distinct, though not entirely. The compulsion to bring harmony does not necessarily – or exclusively – originate in faith, though faith may have a profound influence. Rather, it emerges as a ruthless demand for intellectual coherence driven by the ‘primary will to know’ (Jaspers 1960 [1946], 66)

Section A

Preludes to a New Society

By the mid-seventeenth century, the university was compelled to adapt and innovate to meet the mounting challenges of society, but its purpose was also clearly defined by conservatism and tradition, attributes critical to its symbolic and social reproductive role. The medieval university existed bodily in an institutional form not dissimilar to the church. From some historical perspectives, the university might appear to have derived from the church, but the church merely shared space and gave

shelter to the traditions and ideas that can be traced – as has been shown – much further back into antiquity. It was much more the case that the medieval church played a role as mid-wife to the modern university form, but the relationship with the church then grew increasingly competitive.

Humanism carried forward the tradition of intellectual scepticism: the scope to question the cosmological order, more through Aristotle than Plato. What was also handed down was a geo-centric view of the universe, described by Aristotle, based on Ptolemy's mathematical calculations. However, from the middle of the thirteenth century, the logical synthetic method of Aristotle was driving a shift in theoretical astronomy led by Georg Peurbach and his student Johannes Regiomontanus. Regiomontanus had trained in astronomy at Cracow, in medicine at Padua, and had practiced astronomy in Bologna, but split from the academy to publish calendars, which prompted his revision of accepted Greek astronomical texts. The impetus was that the Roman calendar was no longer accurate and astronomical navigation techniques were proving unreliable in long ocean voyages. The shift in astronomical theory was then steadily built upon by Copernicus, Kepler and Galileo, but what gave these theoretical advances validity was the combined impact of glass manufacturing, improvements in optics and the arrival of the first telescope (Mumford 1967, 126), which was then expertly put to use by Galileo. This showed how sophisticated instrumentation would add a powerful dimension to scientific discovery, by greatly extending sense experience. (As discussed in Chapter III modern critiques of science suggest that this also skewed human perspectives of the universe, by making it possible to make selective sets of physical observations only to produce a particularly narrow mechanistic view.)

The challenge of scientific rationalism to humanism was clear. Galileo himself argued that it arose from 'irreducible and stubborn facts' (cited by Whitehead 1933, 10). While the vitality of humanism was waning, the dialogical form persisted, operating within the unwritten law that alternative ideas must never present outright challenges to Christian dogma. However, as astronomical evidence contradicting Ptolemy's earth-centred conceptions mounted, astronomy broke free from the university and began questioning humanist conceptions (Pederson 1996, 469). After having spent eighteen years in the system, Galileo, like Regiomontanus, was

compelled to abandon the university, frustrated by the demands of teaching and the lack of time for research. Accepting the invitation to become a court mathematician in Florence, he developed the Copernican system, publishing his results in the *Dialogo sopra due massimi sistemi* (Rüegg 1996, 25), only to be condemned when the full implications of his work became apparent.

When Galileo knelt before the Inquisitorial Tribunal in Rome in 1633, laying down Copernican theory, he was not only ushering in a new cosmology, and debunking old science, but preserving an ancient learning tradition: setting out propositions followed by logical synthesis. For Plato, propositions grew out of the imagination to be tempered by reason. But for Galileo, followed by Newton, Descartes, and Bacon, the leading lights and prophets of the new science, propositions grew out of nature, to be mediated by sense experience. Aristotelian realism, based on the synthesis of logic and sense experience, had successfully overturned Aristotle's own cosmology. More significantly, it challenged Aristotelian causality, based on the teleological principle that all things had an end purpose. So for instance, rocks fell to the ground because their goal was to find the centre of the universe. The question of what drove this new universe would be answered by Newton's *The Mathematical Principles of Natural Philosophy* – or '*Principia*' – in 1687. This consolidated the shift in scientific thinking towards the notion of a mechanical universe as it described how heavenly bodies could be held in place by an invisible attractive force obeying the inverse square laws of mathematics. The idea of a mechanically balanced universe proved widely appealing and immediately drew the interest of philosophers and leading political theorists, including Locke (Dear 2006 26-7). Polemicists, such as Voltaire, would also embrace the ideas to advocate the natural right for individual freedom and liberty, even though Newton himself denied that his laws described a 'self-generating, self-regulating universe' (Outram 1995, 56).

To the modern humanist and science critic, the shift in thinking brought about during the Scientific Revolution, and the clockwork universe metaphor it propagated, was part of the long march towards progressive rationalisation brought about by Aristotelian logic, reducing individuals to little more than mathematical units (Marcuse 1964), and some sense of this danger existed from early on. To the entrenched seventeenth century scholarly establishment, the changes were

philosophically problematic due to an absence of first causes and the sheer ‘absurdity of action at a distance’ (Dear 2006, 29). In more general terms, the ideas were heretical, and so were bitterly resisted. As a consequence, the misconception has persisted that universities played little or no role whatsoever in the Scientific Revolution. This is supported by the idea that the academy of the Middle Ages was absolutely rigid and unchanging, and so had to be compelled by outside influences to transform itself (Delanty 2001, 22-3). This reinforces the general misconception that the new science grew up in opposition to the church, and the church-bound academy, which only contains a grain of truth. It is a narrow historical view. Broadly speaking, modern science was really only made possible by its association with the medieval university, and hence also the church, and there is a growing body of evidence to show how the actual processes unfolded. In recent decades, a revisionist historical approach has looked beyond the immediate picture, that had emerged from the examination of ‘charters and chairs’, to consider personal accounts, manuscripts, notebooks, letters and bibliographies, library catalogues and lecture notes. This has revealed a far more heterogenous set of activities within the university:

demonstrating that universities were not benighted, hidebound, monolithic institutions which shut their doors and minds to all by a diet of dead science and medicine, washed down with stale scholastic commentators. (Porter 1996, 535)

During the first half of the seventeenth century, universities in northern Italy and the Low Countries were among the most advanced in developing the new science. The influence of the new scientific thought was particularly evident in student dissertations. This was even so in the Padua medical faculty with its reputation for solid conservatism. The seeds of the Scientific Revolution were planted and nourished in the university of the Middle Ages and, as had Galileo, the ‘overwhelming majority of those who by any criteria made a contribution to that revolution had attended university’ (Porter 1996, 534).

Scientific breakaway activities ultimately contributed to the university becoming a more diffuse entity, though the institution remained at the core of what became a more sophisticated and elaborate system of knowledge creation and transmission. The Scientific Revolution continued to generate new forms of experimentation and new ways of doing science that fed into national ambitions for

the academy. Advances in mathematics, and the ability to calculate infinitesimals, now empowered science to master fields of knowledge that were previously only 'impressionistic' (Porter 1996, 538). It would take another century, however, before Darwin's *Origin of the Species* would be seen to seriously challenge notions of divine creation, even though he avoided stating as much. Nevertheless, the idea that objective truth was now accessible to the individual was gaining sway, even though residues of religious doctrine lived on. Newton had believed that to keep the universe in motion required the intervention of a creator. Similarly, Descartes saw God as the divine watchmaker, working behind the scenes. Nonetheless, by accepting the principle of 'Cartesian doubt' and adopting methods and procedures of science, anyone, as long as they had education and wealth, could become a member of an emerging republic – the stateless republic of science.

German transcendental philosophy, articulated by Kant, advocated that enlightened reason equipped individuals with the necessary autonomy to divine moral principles and duties – *categorical imperatives* – that could progressively liberate humanity from dogma (Rorty 2007, 187). This went further than Locke (1967 [1690]) whose English utilitarianism had extracted from the new cosmology a way for reason and tolerance to form the basis of a social contract. Individual rights and state power needed to be 'checked and balanced', and this was only possible in a 'state of knowledge'. This very same idea nourished, and was fully expressed, by American constitutionalism as this reinforced the general principle of the separation of powers. Locke's political theorising was central in another way in that he saw the power of reason elevating 'man' out of – and beyond – the 'state of nature'. This is what inspired Kant and also offered an imperative to arrest the earth's untamed territories. The acquisition and management of property in a civilised manner could be seen as the principal aim of citizens forming a commonwealth. 'The Earth, and all that is therein, is given to men for the support and comfort of their being' declared Locke (1967 [1690], 304). This position was useful given the advent of printed maps, reliable navigation and advanced shipbuilding. These provided European states, none less so than Britain, the necessary wherewithal to embark upon an era of exploration and colonisation. Rising industrial squalor at home, overflowing prisons, burgeoning cities, and the rapacious demand for raw materials would also provide powerful incentives.

Section B

Knowledge and Nationalism

Once the European secular state became concrete as a centrally coordinated and specialised entity, it also became increasingly ambitious and productive. However, the prospects for survival and prosperity demanded from each state a coherent and shared sense of nationhood. This was initially contingent upon the solidity of the territorial entity. Political unity and support for the national adventure was also best served by engendering a shared culture, having a common language and a literate population with a 'self-sustaining high culture' (Gellner 1983, 52-63). These became common attributes, engendered by the ability of individuals to carry out independent Cartesian thought so that this became a central feature distinguishing 'national culture' from 'traditional culture' (Gellner 1983, 104-7). This also provided the human capacity for technical innovation that would make possible the adjustment to industrialisation and revolutionary social change. The growing promise of material advance, due to the Scientific Revolution, meant that universities were central to nation building. In the same way that universities became the symbolic and instrumental means of state formation in the Middle Ages, by the eighteenth century, the European university became emblematic of nationhood. It generated the scientific, technical and cultural means through which nationhood could be realised.

Paradoxically, as the quest for national identity grew more urgent, international student exchange – which had nourished the universalistic goals of higher learning – became constrained. The embrace of the new science meant universities were now expected to concern themselves less with metaphysics, and with providing a rounded education, in order to focus on practical disciplines like economics, technology, medicine and natural science (Hammerstein 1996b, 624). The shift in emphasis brought widespread institutional change, sharpening the distinction between national higher learning styles. A significant change came with the founding of the 'Hohe Schule' as the state university of Stuttgart, created without papal authority in 1781. It abandoned the traditional faculty structure of art and philosophy, medicine, law and theology, to create six departments: law, military science, public

administration, forestry, medicine, and economics (Frijhoff 1996b, 46), which was more in line with state activities. Stuttgart became the model for teaching a combination of applied as well as pure sciences and was adopted by the French polytechnical *hautes écoles* established after the French Revolution. The Napoleonic model became a clear expression of national cultural unity, achieved through a legislative framework that located the university within the state, as much to provide a guarantee for its independence from sectional interests, as a method of centralised control (Neave 2001, 27).

During the eighteenth century, often with state support, the breakaway sciences set up their own national academies, following the example of the Royal Society of London (Ridder-Symoens 1996, 624) while universities were forced to adapt and change. Theology inevitably declined as the lead discipline, and the university moved further from the cultural and intellectual influence of the church, more into the orbit of the state, a shift that had begun more than 500 years earlier. The transition left a common and widely accepted impression that as an institution the modern university ‘grew out’ of a time when the power of the church was in decline, and the modern state was emerging. The ambivalent position between church and state ‘gave the university its autonomy’ (Durkheim quoted in Delanty 2001, 29). There is some validity in this view, but it understates the force of higher learning as a secular activity throughout the Middle Ages, and as a universal human endeavour from much earlier times. The basic conceptual error is that the university did not so much ‘originate’ in the Middle Ages, but the ancient traditions of higher learning adapted and changed in response to changing circumstances.

The expanding cosmos of scientific inquiry and scholarly knowledge spread in all directions, and divided into new disciplines. Without the coherence provided by theology, unification of the disciplines was sought in philosophy, which then claimed to be the ‘conceptual and methodological prerequisite’ of the other disciplines (Hammerstein 1996b, 634). Three distinct university forms evolved: those with faculties awarding degrees, and tending toward the training of specialists; the collegiate university based on the Oxford model with decentralised teaching, providing generalist knowledge; and the college-university which combined central organisation with the collegiate structure (Frijhoff 1996b, 69). Definitions of ‘the

university', therefore, became more difficult as these institutions now did different things. However, as an interlocking whole, these organisations were distinguished by the fact that together they were at the very top of an educational hierarchy, they awarded degrees, and they trained their own specialists. As an institution the university remained coherent, though it existed in a more diffuse form. It remained a symbol of education, being part of a life cycle reproducing civil society; training professional candidates and promoting scientific know how, leading to the growth of specialist disciplines that undergirded the formation of elites, which altogether served a socialising function. The university, therefore, retained a custodial role, both in seeking new knowledge through research and teaching a disciplined way of life (Frijhoff 1996b, 69-70).

While the university remained at the symbolic heart of secular civility, it was also being thrown into the conflicting role of being the economic and scientific engine room of the expanding capitalist state. Across Europe, this occurred in conjunction with the growing assertion of national cultural identities, often hardening into nationalist sentiments. These were most keenly expressed in Germany, and embodied in the traditions of the Humboldt university, named after the Prussian diplomat and philologist Wilhelm (Baron) von Humboldt, who was instrumental in establishing the University of Berlin, in 1807. Driven by German idealism, the Humboldt model rejected the narrow utilitarianism of the new science to adopt a more rounded humanist approach, emphasising the combination of teaching and research, and characterised by specialisation and departmentalisation. Humboldt became the model for scientific and disciplinary specialisation in Europe and in the United States. Over time, by an accident of its own success as a way of organising the scientific endeavour, it began to work in opposition to its original humanistic ideals. Nonetheless, the Humboldt model created the autonomous institutional context that would aid the emergence of the modern knowledge-producing university. German idealist conceptions of unified knowledge and cultural cohesion provided the necessary rationale, at least in the modern context, for the university to remain a place for 'free and untrammelled critical discourse' (Wittrock 1993 cited in King 2004,7-9) firmly reinforcing the wider demand for institutional autonomy. Much less of a single coherent notion of the university existed in Britain, although, there were expectations that the institution would still provide a cultural bastion. Newman's 1852 seminal

discourse on the *Idea of the University* became the Anglo expression of a liberal education, even though its underlying aim was to modernise religion and have theology reinstalled as a key discipline; the university would then provide a spiritual and cultural stronghold against industrialisation. In contradistinction, Jeremy Bentham had taken a more utilitarian view when founding the University College of London and had banned theology (Delanty 2001, 23-37) to focus on what was practical and vocational. From this point forward, any consensus on what might represent an overarching conception of knowledge within the Anglo tradition became less apparent. This also reflected the political pluralism that was the backdrop to massive societal change underway in Britain as it blazed a trail of massive industrial expansion, forcing all of Europe to follow in its wake.

Section C

A Cognitive and Global Order

The European state was quickly becoming the prototype in a world system of states, creating a new political order, and this was being foreshadowed by the spread of colonised lands across the face of the globe. Scientific rationalism was now becoming entrenched as the dominant driving logic within the academy, which was loosely configured as a constellation of learned societies and colleges with the university at its core. Altogether, this was a system that could advance the economic and national interests of the state and routinely produce, and reproduce, an expanding bourgeois capitalist class. The political project of the Enlightenment, and colonial domination, was also now being routinely pursued by ‘sober men in sober clothes, spreading respectability and a sentiment of racial superiority together with gasworks, railway lines and loans’ (Hobsbawm 1975, 16). Empire builders went about this process in different ways, but as Arendt observes (1958,126-30), this was usually by domination which in turn tended to aroused a desire for sovereignty among the conquered. Only the French pursued the old Roman method of ‘incorporation’

In much the same way that knowledge had been slowly dislodged and disconnected from its previous moorings within religious doctrine to become more widely available for the pursuit of utilitarian goals, so too was the state becoming less

bounded by the notion of territoriality. This does not suggest that individual states were not still grounded within physical borders, but the power of the modern state, having been consolidated, was now more easily projected across the globe, both militarily and, indirectly, through the control of resources and finances, all made possible by superior bureaucratic and industrial efficiency. Wallerstein argues that it was the superior capacity in these areas that gave the European states a key advantage in driving countries on the periphery towards the lowest end of the production cycle, transforming their economies into 'subsidiary monocultures' and plantation economies. In this way, the new imperialism was very different from what had gone before, much less reliant on physical dominance, but able to systematically penetrate the economies, making territories structurally dependent while political power could be consolidated at the core (1974, 133-4, 348).

This prompts the question: to what extent were these units actually subordinate? If the global capitalist system required state support, for these multiple states to be 'subsumed', why then did a European-based 'universalistic state' not emerge at this point? (Mann 1988, 139). In a similar vein, Skocpol questions whether this new system meant that the units were necessarily subordinated at all, or whether the change brought a new level of interaction, in which former political and military interests were now bound up economically and 'interdependently' (1979, 22). What this could mean, however, was that local cultural and historical legacies were being suppressed, and these could resurface opportunistically. In other words, what was now in place was a more dynamic but unstable structure, in which Waltz's 'miserable' (1954, 3) anarchy persisted. What is not deeply contested, however, is that this new capitalist mode, and global configuration of state power, created new patterns of 'winners and losers', the shape of which could be traced around the expanding networks of global communication (Hobsbawm 1975, 85). What the new state system represented, therefore, was a set of enduring 'imperial hierarchies' that remained fixed in place till the middle of the twentieth century (Hobson & Sharman 2005, 70-1).

Another distinctive feature of nineteenth century imperialism, occurring on the back of rising industrial production, was that the pressure of capital accumulation led to social pressures, sparking the need for colonial adventure. This idea relates to Hegel's suggestion

that the over accumulation of capital by the bourgeoisie created imbalances in the distribution in wealth, threatening to expand the poorer classes. External expansion through colonisation became the release valve, preventing the eruption of internal class warfare (Harvey 2003, 125). Polanyi also describes how the state and capital worked hand in glove: the state providing the necessary conditions, infrastructure, tariffs and transportation to facilitate markets, enabling *laissez faire* economics to spread. This was the process through which traditional economies were routinely transformed. Viewing state-sponsored capitalism as a natural outcome of self-adjusting markets was, therefore, nothing but ‘stark utopianism’ (2001 [1944], 145). This approach to understanding imperialism suggests that the logic of capitalism and the logic of the state, while different, become intertwined in complex though often contradictory ways (Harvey 2003, 27-9). The relations between capital and the state work dialectically, with the immediate goals of one or the other not necessarily being met by any particular political decision or set of strategies. However, the essence of economic liberalism that became fully established in the last half of the nineteenth century was that the mutual interests of the state and capital systematically drove imperialism forward.

As much as this was the case, other factors underpinned these processes, framing the dialectic, yet remaining obscure at this macro-analytic level. Imperialism usually began with physical domination, but was consolidated by economic integration, and, as has been shown, this was an extension of cultural and nationalist ambitions, and so became a process of social and political assimilation. As Elias suggests, this was aided by the fact that the colonised often aspired to move forward and upward into the higher social realm (1982[1939], 134), building towards an independent sense of identity. So it was the case that those in the dominions not only adopted the legal codes and general rules of the established group, they also took on the attitudes and manners of their rulers, often in very exaggerated ways, in order to assert their position in the imperial hierarchy. Assimilation and ‘homogenisation’ had practical aspects; it was much less costly to administer an assimilated colonial population, which was also less likely to plot rebellion (Tilly 1975, 76). So imperialism meant capturing the hearts and minds of the population, drawing it into a cultural envelope, usually through linguistic, religious and eventually educational standardisation (Tilly 1975, 78). From this perspective, imperialism being achieved through the mutual cooperation of ‘state’ and ‘capital’ is only true in an abstract sense, for each given context must draw upon human values and capabilities in order to give substance and meaning to these two terms. Imperialism was gained through superior technical and bureaucratic methods, advanced

financial and monetary systems and improved manufacturing, but it also necessarily entailed a 'second pillar' of social and cultural aspiration. All these elements drew upon the capabilities and qualities generated by the growing power of scientific and technological rationalism, and through the elevation and expansion of the university, as a keystone 'national' institution.

Generating hegemonic power

From the late seventeenth century, new knowledge was being generated from within a much wider array of sources, from within the institutionalised forms of the university and academies, and also from an expanding 'invisible university' (Charle 2004, 75); that is, the links between scientists, scholars and students that formed a network, bridging institutional knowledge with civil society. This extended internationally and nurtured the social base of the Enlightenment: what Habermas describes as the 'public sphere'. Its growth corresponded and counter-balanced the growing power of the European state and became manifest in the power of public opinion (Habermas 1989, 18). However, by the mid 1800s, across Continental Europe, the sharp end of social change took the form of social revolution as the labouring poor challenged the continued stranglehold on political power of the old estates. It is commonly observed that university intellectuals were not well represented in the front lines, and even the poor, once educated, were likely to join the bourgeois elite rather than assist in the class struggle (Hobsbawm 1975, 187-202). Similarly, the university itself was not necessarily the greatest advocate for change, at least not explicitly. The university did, however, provide the essential social and intellectual crucible that led to the emergence and propagation of transformative ideas. The leading historical figures and polemicists, chief among them being Marx and Voltaire, who defined the battle lines of the social struggle and articulated alternative visions of society, invariably received their education at the best universities. Their ideas formed part of a subterranean movement travelling through the invisible university, providing the intellectual and legislative agenda of social protection. They stimulated much of the counter-action that created what Polanyi (2001 [1944]) calls the 'double movement' in the progress of capitalism.

From the intellectual ferment surrounding the upheavals of the mid 1800s, social and political theories were articulated that would guide the agenda for state experimentation, and form the ideological foundations for emerging global

hegemonic rivalry that would dominate much of the following century. In their most distilled form, at one end of the spectrum, there were visions of society characterised by a sense of historical succession and privileged insight that provided some basis for continued aristocratic rule, the residues of which led to command and control economies and statist regimes typical of Continental Europe. This was in sharp contrast to the emergent philosophy of ‘democratic perfectionism’ (Unger 2007,16) associated with the ideology of individual autonomy, and market freedom. The United States became the laboratory in which this ideal would be thoroughly tested, with these principles integrated into its distributed system of federated states, and the American Declaration of Independence stating ‘that all men are created equal and independent’. This gave legal substance to the idea of the social contract as ‘governments are instituted among men, deriving their just powers from the consent of the governed’.

Britain lay between the extremes, leaning firmly towards economic liberalism as a formula for hegemonic dominance. Fuelled by scientific and technical ingenuity, and the power of steam, it traced out a vast global domain in railway lines and telegraph wires, bound together with a great measure of Victorian virtue. However, by the end of the 1800s, oil production began to increase significantly in the US, which had already begun to demonstrate technological superiority in ‘mass production’ (Hobsbawn 1975, 60-1). This was based on the flow of new small-scale consumer items, from clocks and sewing machines to revolvers. North America’s rising industrial strength was accompanied by an international ‘seismic shift’ in higher learning. Between 1870 and 1930, what had been, by comparison, a relatively small homogenous set of elite institutions ballooned into diverse groups, serving a rising middle class by producing white-collar professionals. Throughout Britain, Germany, Russia and the US, the number of enrolled students multiplied, ten and twenty fold, in the initial wave of massification, both as a cause and a consequence of industrialism and modernisation.

Science was still a faithful servant, called upon to explain events and natural causes of a ‘secondary’ and ‘intermediary’ nature. Theology had been dethroned, but religious sensibilities and some sense of divine order prevailed. The steady transformation in the relationship between science and religion gained pace with the

arrival of the mass research university. At the inauguration of Johns Hopkins University in 1876, English biologist Thomas Huxley stated: ‘You are making a novel experiment in politics on the greatest scale which the world has yet seen’ (Readings 1996, 34). Huxley was not only defining the mission of the new university, he was pointing to the realisation of the American social contract, not through the pursuit of a cultural ideal – which he noted was absent – but by way of scientific experiment. From this point, US science climbed towards global dominance. University student numbers ballooned from 22,464 in 1860 to 489,500 in 1930, a 22-fold increase, more than double the average expansion in Europe. More significantly, the focus of learning shifted from the sacred to the secular, as specialisation became dominated by the use of systematic scientific processes, or ‘methodological naturalism’. This extended research beyond nature’s realm to include the study of people and society, generating the growth of sociology, psychology, economics and political economy. Close embrace of the scientific method as accepted orthodoxy had a profound impact on the humanities. Even the scriptures and artefacts from Palestine, and the ancient traditions of revelation, became subjects for scientific scrutiny. The humanities ‘understood as subject matter, as well as approach’ came to substitute for earlier Christian-based claims that knowledge was unified, and religious truth was now relegated to the ‘inner life’ or human sensibility, freeing the humanities, making them compatible, and complementary to specialised scientific endeavours (Roberts & Wilson 2000, 13-4).

Scientific thought was now closing the intellectual circle, entirely outflanking religious doctrine, so that by the beginning of the twentieth century, scientists relied less and less on the supernatural to fill explanatory gaps. The scientific enterprise began to fully occupy the social and political function, and intellectual space previously dominated by theology and to a lesser degree the humanities. Religion was now, for the first time, becoming ‘extrinsic to the culture of science’ (Roberts & Wilson 2000, 31). The arts and sciences university, which was to provide the foundation for American technological supremacy, had become, or at least now functioned as, ‘an integral construct’ (Roberts & Wilson 2000, 13). The great American fetish for technology, driven by an innate sense and passion for the ‘technological sublime’ (Nye 1996), would be nurtured within this construct. It would come to rival only that of Germany’s embrace of technology as ideology, the most

potent strain of which emerged in the metaphysics of Nazism. In the US, the embrace of science and technology as ideology was more moderate yet pervasive. It began with the broad acceptance of logical empiricism as a unifying framework. In the 1930s, this had spread from the intellectual crucible of Vienna, through learned circles ‘into the intellectual heartland’ of the US (Reisch 2005, 25-7). Through reduction, induction and confirmation, logical empiricism was an attempt to develop a complete science that could better realise the human values of the Enlightenment, and simultaneously drive out vestiges of ‘metaphysics and pseudoscience’ (Reisch 2005, 1-4). During the Cold War, however, this unifying approach would be forced into wholesale retreat from academic ethical, social and political debates, and this gave way to the idea of science being neutral and, therefore, separate from human norms and values.

Section D

Configuring Empires

The connection between the German University and how events unfolded there must be seen in contrast to the United States, which adopted the German model of a research university, but did so within an entirely different political and administrative landscape. Typically on the Continent, in Germany, in France and elsewhere, the creation of new universities after the Enlightenment marked the marriage of the modern state and higher education, though this was much less pronounced in Britain, as shown below. In the US, higher education had a clear democratic mandate. While institutionally separate from the state, the conventions of science and higher learning were embodied in the workings of the state and enmeshed within the systems of social policy and economic production. So universities had great autonomy, but they were constrained in other ways, through (local) state regulation and particularly through the interweaving of university research efforts with the demands of industry, business and government, all of which increased dramatically from the end of the nineteenth century. The vast range of utilitarian demands on the US higher education system suggests that the notion of ‘free’ scholarly inquiry within this context may be a moot question (McClelland 1983, 205). However, the US system has remained stable and is

seen as a global leader to be emulated because of its intrinsic institutional diversity and massive scientific output.

At the opposite pole, the Russian higher education system was tightly centralised, the main consequences being wild fluctuations in education policy, mirroring the political turmoil, and the collapse of free intellectual inquiry. Adopting the German research university model, the Tsarists sought to create a highly elite university system to train a privileged class of technocrats under stringent administrative controls. Yet, there was almost complete neglect of primary and secondary schooling. After the Bolsheviks seized power, they turned the system around to focus much more on the lower levels of education and radically transformed higher education, ultimately abolishing universities altogether as corporate entities to create an expanded system of vocational and technical training, working strictly within Marxist doctrine, with curricula revamped in a ‘narrow utilitarian direction’ (McClelland 1983, 191). In order to impose revolution, higher education was purged of the bourgeoisie, though not completely. As a result in 1928, during the Shakhata Affair, a disaffected group of old Russian specialists were tried for plotting to overthrow the new Soviet regime. Stalin then became set on erasing any remnant of Tsarist professionalism, wreaking irreparable damage, which it has been argued, undermined the Soviet Union’s capacity to resist Germany in World War II (Timberlake 1983, 333-44). Even so, this did not prevent the Soviets launching into the space era a few decades later (Case Study 3, 209).

In Britain, singular connections between higher education and the state became harder to define by the turn of the century. The earlier links between Oxford and Cambridge and parliament had been diffused by a more diverse system of funding and control spread across various ministries. During this ‘take off’ period the newer civic universities, such as Birmingham, Newcastle and Liverpool, along with new collegiate foundations in Oxford and Cambridge, enjoyed growing autonomy. While this engendered diversity, universities also had to rely heavily upon donor support. For the newer institutions in particular, this meant forging strong connections with industry. This was in keeping with the idea, embraced from the mid-to-late 1800s in Britain, of a ‘minimal state’, from which grew the abiding myth of the ‘small state’, the power of which is examined in Chapter VII (Sects B & C). The historical reality

of the minimal state was the legacy of aristocratic rule: a network of peers, landlords and heads of houses, who influenced ministers, undersecretaries and other civil servants. As Rothblatt rightly notes: ‘Against the Liberal doctrine of the minimal state, then, must be laid the custom of state intervention along the ancient caravan routes of aristocratic patronage’ (1983, 146).

As an offshoot of the British system, from the mid to late nineteenth century, universities sprouted across the British Empire, including Sydney in 1850. This was a watershed in Australia, followed by Melbourne in 1853 and Adelaide in 1874. In a clear parallel with the comments made by Huxley at the inauguration of Johns Hopkins University, which evoked a new era for the US, the new chancellor of the University of Sydney, Charles Nicholson, stated baldly at the university’s inauguration in 1852 that: ‘Australia has no past’, presuming, therefore, that the first inhabitants of the country, and the convict settlements, meant nothing. Australia was stepping forward, with the founding of its first higher education institution, to take its place in the ‘civilised world’, with the hope of creating a new ‘Britannia in the South’ (Gardner 1979, 43). Conservatives might have celebrated this close cultural link, though Charles Wentworth, who had skilfully lobbied for the creation of the university, and who had himself attended Cambridge, did not so much as mention the ancient British system in his famous speech pushing for the university to the NSW Legislative Council. Instead, he pointed exclusively to Canadian and US examples as colonial precedents of ‘popular’ education, ‘talking over the heads of the council to a wider Sydney audience’ (Gardner 1979, 14) rather than perhaps being seen to be furthering establishment interests. Throughout the colonies, with rare exceptions, universities were not popular facilities as most people were in those early days more concerned with meeting basic needs. The state’s investment in this area was often viewed with suspicion, as perhaps nothing more than the consolidation of British ruling class privilege. This idea faded after university enrolments grew with the rising prosperity in the post-war era of the twentieth century, as discussed in Case Study 3.

Rationalism to globalism

The first decades of the new century and the experience of modern industrial warfare revealed the ugliest sides of modernity; the worst aspects of the Enlightenment’s

Faustian pact with scientific rationalism. Nazism and the Holocaust transformed human perspectives of what it meant to be modern, prompting contemplation and deep reflection on the potential consequences of the pursuit of rational knowledge generated for its own sake. The question for the German academy was perhaps not so much how this might have contributed to the holocaust, but why did it fail so miserably to safeguard against its causes. Evidence of the widespread and crucial involvement of university-trained personnel in Nazism cannot be disassociated from the nature of higher education envisioned as part of the German ideal. Similarly, acceptance of Newman's idea of the university as being somehow in neutral pursuit of knowledge for its own sake also needs to be reconciled with the idea that knowledge yields power.

The depth of the involvement of German academics in the rise of National Socialism is striking, given the ethos of academic freedom so vigorously cultivated. There was a conspicuous absence of organised intellectual resistance, except from the White Rose and their heroic campaign in the name of 'Christian and Western civilisation'. The German academy mostly folded in lockstep with the Nazis. As Albert Speer observes, the church presented greater frustration to Hitler (Gallin cited in Stryker 1996, 14). From 1933 to 1945, only about 14 percent of academics teaching in German universities resigned or were removed from their posts, making the great majority willing bystanders, whose lack of systematic opposition and protest had the effect of helping to facilitate the Final Solution. As Arendt noted, the many bystanders were considered neither perverted nor sadistic, but 'terribly and terrifyingly normal' (1977 [1963], 276). Had the academic clerks among them, who commanded respect, withdrawn from significant participation in political life, then perhaps some consciences might have been spurred (Stryker 1996, 14). This thought is tempered by a recent examination of the issue that suggests that fear of being ostracised was a considerable factor, along the very great temptation for advancement within the regime among the so-called rising 'generation of the unbound' (Wildt quoted by Cornwell 2004, 9). Nonetheless, the complicity of German academics in the holocaust raises fundamental questions about notions of objectivity, neutrality and detachment, and whether these can, or should, exist outside a framework of humanity and justice. Newman's idea of 'knowledge as its own end' may need to be treated

with caution. As Stryker avers: 'If higher education is to be both meaningful and fully human, it must matter morally as well as intellectually' (1996, 18).

The Holocaust remains the most powerful symbol representing the inherent dangers in the veneration of instrumental reason, and which has relevance to contemporary debates over how much universities should seek to be value free or value rich. It is within this context, and arising from these events in history, that questions always need to be asked about political ideology and the embrace of technology as an end itself. German technical prowess was a corollary of post-Enlightenment material progress. Herf argues that this brought about a mixture of fascination and revulsion with technology that defined German identity, and anti-Western German conservatism, until 1945. The initial rise of German nationalism, from around 1870, was motivated by a thorough rejection of modernity. After World War I, leading intellectuals, including Oswald Spengler and Ernst Juener, the 'high priests' of cultural pessimism, looked to technology to reverse Germany's fortunes, embracing it as the basis for an 'advanced authoritarian state', that could counter the fragmentation of bourgeois society (1994, 117-9).

Heidegger, who publicly committed to Nazism but then resigned as rector of the University of Freiburg in 1934, observed that the political difference between dictatorship and democracy was insignificant compared to their shared technological advances (Cornwell 2004, 133, 234). He saw defeat of Germany in 1945 as no solution to the problem of technological advance, which left Europe in the grip of a 'technology will to power', an impulse to harness, for ideological ends, the power deriving from human control over nature. Technological pessimism resurfaced in the 1960s, having shifted political coordinates, right to the left, and this became manifest in the anti-nuclear, pro-environmental stance (Herf 1994, 127). A radical critique of technology, led by Marcuse, of the dehumanising march of rationalisation, was the key that unlocked an 'entire universe of discourse and action' (Feenberg 1995, 21) with explosive impact across the US. Growing disillusion was marked in the United Kingdom by the first major anti-nuclear march, on the Ministry of Defense in 1961, led by Bertrand Russell. University riots followed in the late 1960s and early 1970s, across Europe and the US, climaxing with four students being shot at Kent State in 1971. Russell had earlier expressed a fear of science and technology going out-of-control when accepting the Nobel Prize for literature in 1951. In agreement with Heidegger, he said:

The atom bomb and the bacterial bomb, wielded by the wicked communist or the wicked capitalist as the case may be, make Washington and the Kremlin tremble, and drive men further and further along the road to the abyss. If matters are to improve, the first and essential step is to find a way of diminishing fear. The world at present is obsessed by the conflict of rival ideologies, and one of the apparent causes of conflict is the desire for the victory of our own ideology and the defeat of the other. (Crawshay-Williams 2006, online)

What was transformational in Russell's outlook, and what inspired the protest movements that followed, was the notion of a united world, devoid of opposing ideologies. This signifies the beginnings of globalism as an idea that would blossom in the 1970s with the growing understanding of the interconnectedness of nature, pointing to the fragility of the biosphere. The spread of industrialisation and urbanisation, and their environmental consequences, now presented the possibility that catastrophic degradation of the biosphere might occur in more ways than by the sudden and brutal use of atomic weaponry. In historical terms, the turmoil of the 1970s climaxed with the final withdrawal by the United States from the war in South-East Asia. This provided a psychological turning point – or perhaps should have – ending the great conceit that scientific and technological prowess would always deliver military success, a conceit founded upon the blind veneration of science.

The great uncertainty of this period brought a parallel cognitive and intellectual revolution, marked by a shift from scientific positivism towards relativism, chaos and non-linearity. Doubts about the fixed nature of truth, whether set down by divine edict or derived by Kantian reasoning, were inspired by Einstein's work on quantum mechanics and his *General Theory of Relativity* of 1915. By revealing the workings of the atomic and sub-atomic world, demonstrating that waves and particles could merge, Einstein showed that there were no absolutes in time and space. At the time, this was seen as another 'Revolution In Science' according to the *London Times* (Cornwell 2004, 102) as it seemed to overthrow accepted theoretical physics. However, Einstein was quite clear that his work built on Newtonian mechanics, and especially the work of James Clerk Maxwell on electrodynamics. It was evolutionary rather than revolutionary, and it was only the misinterpretation of Newtonian theory, which postulated a self-regulating machine for a universe, that made relativity incongruous with earlier work (Kuhn 1972, 99). By removing the demarcation lines between mass, energy, time and space, quantum theory opened the way for more general propositions of there being no absolutes.

From the late 1800s and early 1900s, Henri Poincaré, the polymath and father of relativity, showed that planetary motion was not quite as clockwork perfect as generally believed. He described ‘nonperiodic orbits’ by which some planets travelled in a non-circular fashion (elliptical, hyperbolic and so on) yet were still fixed. Based upon this work, and many decades later during the 1970s, interest in relativity and nonlinear geometry was reinvigorated, but this time within both the science community and popular imagination. The trigger was some very complex weather modelling by Edward Lorenz who discovered that very small changes in his initial parameters had enormous and unpredictable outcomes. This gave rise to the popular notion of the butterfly effect – the metaphor that a butterfly flapping its wings in Tokyo may cause a tornado in Oklahoma. This idea also helped to illustrate serious concerns by some scientists that certain changes in climatic conditions, such as increased polar ice-melt rates, could easily have ‘threshold effects’, setting off chain reactions that induced catastrophic sea-level change. During the mid 1980s, popular non-fiction writers, most notably James Gleik (1987), translated the essential mathematics into more general conceptions of ‘chaos theory’, with impacts beyond the natural sciences, into the study of group and organisational dynamics, leading to a ‘new paradigm’ in understanding and managing change, and providing new and useful insights into managing transformative change in the public sector (Kiel 1994, 201-25). Nonlinearity provided the necessary cognitive framework that would allow organisational change, management and innovation to be seen as processes that could occur sporadically from the ground up, based on experience, rather than flowing from orderly and preconceived centralised plans. This provided the intellectual basis for what became known as ‘new public management’ theory, and this provided the context for sweeping reforms to higher education from the 1980s, as examined in Case Study 2.

A fascination with theoretical physics, relativity, chaos theory and nonlinear dynamics penetrated all manner of intellectual debate, reaching into the social sciences and the humanities. However, while it stimulated a general interest in science, it also undermined public confidence in science, and intellectual authority in general. The demise of communism, the ending of the Cold War, and the sudden dominance of free-market capitalism, helped to consolidate the idea that all events, even those in politics, were ‘inherently unpredictable’ (Nowotny, Scott & Gibbons 2001, 88). Within social theory, nonlinearity offered a way of questioning the dominance of science as a basis for causal reasoning (Norris 1997, 133). It also reinforced the anti-globalisation movement’s intellectual

armoury used against corporatism and scientific rationalism as it was seen to reinforce trends towards philosophical holism and global ecological conservatism. This all promised a new global civility: a multicultural, politically heterogeneous and environmentally caring society in which the dominance of the nation state would naturally wane. These were the hopes and ambitions that underwrote globalism from the 1980s, though the capacity to fully achieve these goals failed to materialise. By the end of the twentieth century, the shift in public attitudes had mostly translated into tighter scrutiny over the activities of all professionals, while science itself managed to retain a position of privilege (Mendelsohn 1994, 151-70). How this anomaly arose may relate to the inability of the academy to respond effectively to the new politics of market liberalism, as argued in Case Study 3.

Section E

Hegemonic Crisis

The modern bureaucratic state had reached its zenith during the Cold War buoyed by post-war economic growth. The problem for government had become one of managing the growing power of professionals, and the machinery of government itself, whose own authority could challenge that of the state's (Rose 1999, 149). Chomsky calls this the 'great beast' unleashed by mass education, and suggests that 'the freer society gets, the more dangerous' it becomes, and the more it needs to be 'caged somehow' (1995, online). A politically mobile middle class, spurred on by a 'rights revolution' (Sunstein cited by Moran 2002, 3) now demanded safety and protection for individuals, their living environments, and the global environment at large, along with measures to prevent the subordination of disadvantaged groups. Coming on the back of the growth of social democracy over much of the twentieth century, these new pressures began to strain the public sector as the state struggled to move beyond its traditional focus of economic and industrial regulation into areas such as health, safety and the environment (Gamble 1988, 13).

Many of these new demands provided financial stimulus to universities, as funds were channelled into research to help solve regulatory problems either through technical fixes or improvements in policy formulations. However, the new injection of funds is probably best considered in the broader context of superpower rivalry and the heightened Cold War

anxieties this generated (Lewontin 1997, 22). The burgeoning regulatory demands upon bureaucracy, and increasing power among professional elites, threatened not only the role of executive government but provided impetus for the transformation in the state and the re-accumulation of state power in the latter stages of the twentieth century. An initial response to these trends was the emergence of the new right, argues Gamble. Margaret Thatcher was the flag carrier in Britain, and Ronald Reagan in the United States. Their political ascendancy occurred as the state was failing to meet the growing challenges of economic management, coinciding with the collapse of fixed currency rates in 1971-2, the quadrupling of oil prices in 1973 and the subsequent onset of recession. This shook national political systems, and the world system as a whole, as it threatened complete 'hegemonic collapse' (1988, 179).

Survival of state power became dependent upon transforming government from a bureaucracy that controlled the economy and supported the welfare state to a business that embraced corporate ideals, models and procedures. This new mode of operations, based on 'new public management', began sweeping through the public sector, including universities, coinciding with the revision and de-centring of intellectual knowledge. Faith in the steady material progress of the Enlightenment had unravelled, and history was seen to be coming to an end. Modern philosophy, through Nietzsche, had declared God dead and buried, and this idea was celebrated in popular culture. Intellectual authority became subject to a wholesale post-modernist critique, and the largest target was positivist science. In much the same way that Voltaire had mistranslated Newtonian physics to enrich the rhetoric of political liberalism, postmodernism broadly misinterpreted the cosmology of the new physics into a creed of unbounded relativity: all ideas would be given standing and all perspectives were to be given privilege. As a consequence of the postmodern turn, the social sciences became, as Gellner (1985) observes: distracted by contested notions of 'subjectivism and objectivism'. Critical theory became constrained by its own perspectivist frameworks: taking scientism and instrumental rationalism as merely presenting another 'view' of the human condition. The postmodernist critique was then unable to deal with the fact that instrumental rationalism was the material circumstances in which human existence was increasingly being defined, rather than simply being an intellectual or linguistic construct. Social theory broadly failed to acknowledge that 'rational systems such as technology play a privileged role in modern societies. This is what distinguished modernity from premodernity' (Feenberg 1995, 221). The invisible, steady advance of infrastructural power, built on the slow advance of scientific and instrumental rationalism, continued in the face of little serious resistance.

The standard left critique of instrumental rationalism, that it consolidates political power at the cost of society being entrapped within a Weberian 'iron cage', is associated with a sense of hopelessness and 'technological pessimism'. This is reflected in the work of Adorno, Horkheimer, Marcuse and others, for whom the Enlightenment becomes a myth of ideology for the promotion of control and power for its own sake. A similar pessimism can be read into the work of Habermas, whereby the progressive rationalisation and demystification of various spheres of modern life transforms traditional worlds into private beliefs, and which leads to a crisis of legitimation (Habermas 1976, 17-31). This crisis, or cycle of crises, is due to fragmentation as each sphere on its own becomes incapable of functioning as universal or culturally stable forms of authority (Pippin 1994, 100-7). The focus on the social and anthropological study of science and technology is informed by these traditions and keeps alive these debates. Latour and Woolgar achieve this when examining the way in which scientific 'fact' or 'facticity' (1979, 239) is generated from within the laboratory. Behind this research agenda is the close scrutiny of the social context in which the conduct of science is naturally embedded. However, the contribution of the research is often disregarded as the main criticism questions the central claim that facts can be somehow 'constructed', as if they were pulled out of thin air, or invented. But as Hacking points out, the social construction of facts does not remove the possibility that they coincide with facts in reality (2000, 28-9). The social construction of facts can often simply point to the way they are located within, and coincide with, a social setting. Seen in this way, constructionism can bring to the surface the political dimensions that are inherent to the conduct of science.

Constructionism loses relevance when, for explanatory reasons, it draws upon the idea of parallel universes, or 'pluriverses' (Latour 2004), given these exist beyond the bounds of standard scientific verification, though this might well serve speculative purposes, as a prompt to critical thought. Constructionist approaches are most useful in 'deconstructing' the purpose of language, myth, traditions and ideas, such as the conception of 'race', or rather the misconception of different human races. Nevertheless, as Hacking (2000) rightly argues, as an analytical tool, it has been much over used and misused. Putting aside the criticism of 'invented' and 'imaginary' worlds, what Latour and others working in this field do demonstrate is that the systematic processes of science cannot be easily separated from human and social activity. What this reveals is that the history of science has been conducted in a way that has sought, on one hand, to subtract human values only to disguise the importation of another set of values (Latour 2004, 260-9). The myth of neutrality in science

has a parallel in the myth of the autonomous rationality of technology. This views the existence of the material world as separate and objective, and therefore entirely politically neutral. This idea has some currency but collapses under scrutiny. By examining notions of autonomous rationality in relation to scientific practice, it is possible to develop a mode of analysis that helps to more clearly distinguish the role of social construction in science, and this is demonstrated in the next chapter.

Discussion and Conclusion

The roots of the most recent crisis for the university can be traced to the fracturing and diffusion of the institution that came with organised modernity, when the traditions of humanism and the new scientism began to collide. This radically altered the civil role of the university, setting the stage for a crisis of identity, both for the university and the ‘institution of citizenship’ (Delanty 2001, 45). As much as this may be true, it is also incomplete in that it ignores the fissures and tensions that have long existed within the academy: the push and pull between universalistic and parochial goals at one level, and the tension between Platonic and Aristotelian conceptions of knowledge at another. The Scientific Revolution brought to the surface tensions and human differences from deep within the intellectual traditions of higher learning, and it also gave them additional meaning and urgency. The new science inspired new Lockean and Jeffersonian concepts of citizenship by redefining notions of human autonomy and individuality. Any such change at this level invariably alters the interplay, and equilibrium, that exists between the individual and society (Archer 1995, 33-64). In this way, radical change in intellectual thought served to redefine collective identity and helped to reshape conceptions of the state. This interplay and correspondence is analogous to the way in which the ritualistic and symbolic power of the academy initially served to consolidate state formation. This thesis argues that these fundamental tensions, between individuals, society and the state, have existed in a similar shape and form for as long as human society has chosen to exist within a technologically complex urban environment, and the changes that have taken place, over great spans of time, represent changing degrees of emphasis, and ‘punctuations’ in the equilibrium of this relationship. The university provides a central conduit through which the interplay of these forces is manifest. The nature of any particular higher education system, and its relations with the state, are therefore best understood in the way it emerges from this morphogenic cycle.

The university remains a symbolic – or at the least a representative – centrepiece of the state in which it resides, given that it deeply reflects the larger social political environment. This is no less the case today, with the rise of globalism, than in the past. To understand the nature of power relations within the state, and perhaps those extending beyond the state into the international sphere, it is useful to examine the role and attitudes towards higher learning, which are symptomatic. An objection to this claim may be that the university is no different from any other social or political institution, or society at large for that matter, so why should the predicament of higher learning be seen as representative? The response to this is the functional consistency shown in the role of the university in relation to the formative development of political organisation, with the university and the state co-existing in each other's shadow, responding to the same changing material circumstances. This general pattern of *reinforcing sequential processes* occurs with great causal regularity, suggesting that there exists an inherent structural feature to the university-state relationship. Jaspers pointed to this when he said that free society demands a place of independent, unbiased research, and the role of the state is to supervise the university, and to prevent it from its own corruptions. Without the state, the university is 'helpless'. On the other hand, the university 'controls the state through the power of truth, not force' (1960 [1946], 135). What has been argued here, building on findings in the previous chapter, is that the structure of this relationship remains fundamentally unchanged. It has followed a similar trajectory while undergoing continual formation and evolution over more than two thousand years. The university contains and represents a memory of that process.

This evolutionary process entails trial and error in the development of political forms of organisation, and higher learning has played a significant role at each elaboration in the evolution of the secular state. How much this is a matter of curious coincidence, or causality, is not the point. The empirical evidence suggests that the state and the university generate emergent morphogenic structural conditions, resulting from their interactions. The nature of their activities and structures develop in parallel, or co-evolve, as is evident in the process of state formation, legitimation, consolidation and projection – of the nation state – into the global arena. Over time, the relations have developed pathways from scholarly speculation and

experimentation to implementation and change, forming a series of continual feedback loops. These are deep cycles that occur beneath the more visible cut and thrust of historical events, but are clearly discernible from the broad historical narrative tracing the course of this relationship from the rise of organised urban existence. In short, the state and the university ‘have history’ like no other two institutions. What the detailed cross-sections of this history reveal is an ongoing process of emergent political organisational change. This is not surprising given that the medieval university, during the formative stages of the secular state, was a test-bed for democratic organisational design (Chapter I, *Introduction*).

The integral role of the university in the rise of the secular state, and the consolidation of the state by the embrace of ‘rationalising techniques’ was a common process, but not a uniform one as it was contingent upon existing conditions. The power of the church and the position of the feudal estates, were transformed as the state became the principal value-allocating organisation. How this occurred and how subsequent power relations were then configured, depended upon the jurisdiction. In areas under Prussian influence, and particularly in Germany, culture, science and higher learning all took place ‘over and above’ the state (Neave 2001, 25). The Napoleonic university drew upon the German model, though not entirely; the university became a centralised bureaucratic and meritocratic institution charged with pursuing the national mission. The British model was more pluralistic as the university was administratively separate from the state. Its role was mixed, both utilitarian but also cultural; it carried the expectation to preserve traditional values. What is most significant about the evolution of these types, which became standard models, is the precise way in which they reflect the morphological features of their respective states: from French statism and German corporatism, to British market liberalism (Levy 2006, 367-8). These various models took shape against broadly similar structural elements that exist between higher learning and political organisation. Historical trends and changes influence these forms in various ways, but these national attributes relate to morphological characteristics, and as such, they become the immediate material circumstance, creating dependent pathways through which the scope for systemic change is defined.

The university-state relationship provides a lens refracting national political and cultural tensions, and this provides the context of state action. This arises from a historical process. During the initial stages of state formation, the university was the symbolic centre of citizenship, and it defined the life stages through which the individual emerged into the 'civilised' world. University instrumentalism, conducted within a particular political cultural context, helped bring about state consolidation, and the national state was then made possible, as Gellner suggests, through the creation of a self-sustaining high culture. The university was quite deliberately designated the task, and this led to the 'nation building' universities of the nineteenth century. As the state became engaged with global imperialism, nationalism was fostered more deeply and thrust on to the international stage. The way in which these events unfolded at the macro-level are well understood. As Polanyi (2001 [1944]) describes it, imperialism was achieved through the mutual cooperation of 'state' and 'capital'. However, this provides only a fairly abstract structural account, for within this process are human actions, and human capabilities, which bring substance, meaning and context to the terms 'state' and 'capital'. Imperialism was made possible through better bureaucratic organisation and technical superiority, through advanced financial and monetary systems and improved manufacturing. However, it also entailed the human capacity to develop social cohesion and a common sense of cultural identity, that is, through the projection of national ideals, mores and values.

Altogether these technical and cultural attributes were brought together through the creation of national institutions, and the university was often one of the main flagbearers. The conduct of higher learning, in this way, becomes an explanatory variable. For instance, when Polanyi examines the causes of the rise of National Socialism in Germany, the threatened collapse of the international monetary system and rampant inflation within some countries is seen as the root cause for the hardening of attitudes (Polanyi 2001 [1944], 25). As much as this was the case, it remains a thin description without looking at the cultural and political circumstances, and the way in which economic events were played out within the particularly volatile cultural environment of Germany in the early twentieth century. Germany was by far the largest producer of graduates, feeding a market now saturated with professionals. Moreover, they were emerging from a system that was one of the few model German institutions at the time (Hennis 1982, 3), a beacon of autonomy at the pinnacle of

German national life, and one in which science and technology were embraced as part of the nation's cultural destiny. All of this might also suggest that the academy was becoming deeply entrenched and removed from the practical demands of the day. This proposition is supported by what became the ascent of National Socialism, and the Nazi vision of supremacy through 'poetry in steel'. This was a virulent outgrowth, and a reaction to the direction of German idealism in the face of modernity. The irony is that German academic autonomy was to be trodden asunder by Nazism. These events, however, support the analysis that when the reinforcing process sequences of the academy and the state deepen, and themselves become entrenched, this can set off reactive sequences that are a social and political response.

The events in Soviet Russia provide another useful macro-level case example of what happens when the feedback cycles between the university and the state break down, thereby disrupting the regular reinforcing processes. The Soviet model presents as extreme statism. Within the French statist model, the university was administratively part of the state, but the professional oligarchy that preserved intellectual freedom was not only maintained within the system, but the integrity of academic disciplines was reflected in – and helped shape – the very structure of the bureaucracy (Musselin 1999, 45-7). Whereas, the Soviet professional oligarchy failed to find a home in the bureaucracy, the result being the function of the university to define national culture and reproduce social and political norms was completely monopolised by the state. This severed the necessary links through which political organisation is given the impetus to respond to new social and environmental challenges. This process was built into the American system, providing a living experiment in traditional pragmatic philosophy, but the question now beginning to arise is whether these structures truly represent the 'definitive formula of a free society' for all time, or whether the mutable nature of social life may demand a new revised form of pragmatism, which may prompt some revision and adjustment to the political structure (Unger 2007, 48-51).

At the heart of debate over scientism and instrumental rationalism lie concerns about human freedom and its realisation. Dewey argued that in the absence of control and constraint freedom remained an abstract notion (1966 [1916] 23-9) which coheres with Polanyi's (2001 [1944]) idea that states are as much responsible for creating the conditions

for the free market as they are for constructing conditions that enable individuals to negotiate the market economy. Extending these ideas, Rose (1999) observes that freedom in the modern world is far from naturally occurring: it has been constructed and delivered by the adoption of Foucaultian ‘technologies of the self’ and the absolute ‘governmentalisation’ of the state. This suggests that within technological society human freedom is dependent upon professional intervention and control. Freedoms and constraints on the individual are tightly bound up in aspects of urban design, within the deliberations of tribunals, and the way in which social welfare policies are conceived and applied, along with the many other ways that rely upon the analysis, opinion and expert skills of specialists. As the post-war welfare state, and the vast technical apparatus that lay behind it, grew larger and more unwieldy, the state itself was in danger of being overtaken by experts and professionals. In response, it evolved into the corporate state in which the idea of ‘performance’ was central. New public management became the creed, and the national economy became the main business enterprise. As Rose argues, the conduct of democracy at this point moved towards high modernism, as the ‘pedagogy of numbers’ triumphed over political philosophy (1999, 63-5). The success and effectiveness of governments, and governance generally, was now being quantified in terms of data, from opinion polls, to financial and economic forecasts, to social and environmental statistics. In the ‘performance state’ technical rationalism provides both the means and the measure of human liberation and constraint.

This fully exposes another dimension of the ‘iron cage’ critique of modernity in that rationalism can be seen as the prerequisite for freedom, though perhaps one that can be easily mismanaged. There is also the danger, as Taylor observes, that as a product of scientism and bureaucracy, instrumentalism tends to promote atomism, whereby individuals tend to pursue self-interest, rather than acting communally. This is most evident in the cult of the individual, and the entire self-development industry, by-products of late Enlightenment. At the same time, in a free society, brutish self-interest must compete with the sense of fulfillment gained by individuals working in dialogue and cooperation with others. In practice, ‘instrumental reason comes to us with its own rich moral background’ (1991, 105) and through greater control and technological mastery, human compassion can be channelled into collective acts of good will, such as voluntary emergency services and sophisticated campaigns for famine relief. So it may be possible to conceive of a merging of the self-interested rational actor and civil society, where the idea of individual autonomy is realised in participation with ‘a community of equals’ (Piore 1995, 193).

As much as this may be conceivable, the impetus of high modernism is towards objectifying, quantifying and satisfying one's personal 'preferences'. To do otherwise runs counter to economic rationality, and conflicts with the Cartesian distinction between subject and object. Similarly, the post-modernist project takes collectivist notions of the self into a cul-de-sac, by defining the self as something that is only realised through society, and where the comprehension of the self can only begin through narrative. The subject of personal identity ceases to exist outside of the conversation. More plausible is the idea that self-identity, and the social being, arises through a process of reaction and response as the individual negotiates their social and material circumstances. The self is not an entity revealed as a result of rational scrutiny, nor a linguistic creation. A conception of the self is an 'emergent relational property [that] comes about through the necessary relations between embodied practice and the non-discursive environment' (Archer 2000, 123). The self is, therefore, neither object nor subject, neither structure nor agency, but moderates and is moderated between each of these. It emerges through experimentation, that is, through the 'primacy of practice', initiated with negotiations undertaken with the social and material world. From this view, it is possible to see how higher learning becomes a fundamental human necessity, and quest for self-identity and common purpose, that responds to both the social complexity and specialised demands of urban existence.

The self is realised by the social and material circumstances, the substrate of which is formed and perpetuated rationally and instrumentally, and has been for a very long time. This is a fact of human existence, as it is embedded in the complex interwoven layers of deeply ingrained human technologies. The possibilities for human potential, compassion and suffering are all situated within this substrate, just as an individual's potential within traditional societies was mostly realised through their immediate social environment, such as kinship obligations. In free society, where scientism and rationalism are more likely to be unconstrained, it is also then likely to be associated with the very worst excesses of human greed, social degeneration and criminal behaviour, while also engendering and facilitating enthusiasms for individual achievement, excellence and community spiritedness. In short, rationalism provides the iron bars of constraint, and also the pillars of human liberation.

The relevance of this to the latest 'crisis' confronting higher education is in the battles now underway over corporate influence, intellectual freedom, standards and the place of

ethics. It is only in a free society that these issues are likely to raise serious concerns, and generate strong debate. For the university, as a symbolic institution whose primary role is building and reproducing a civil society, these conflicts become symptomatic of a much larger societal confrontation where the general parameters and definitions of individual freedom, autonomy and citizenship are shifting, taking with them the familiar lines of ethical purpose. As Taylor suggests, the danger of atomism, brought by instrumentalism, is one of fragmentation where communities are incapable of forming a common purpose (1991, 105-6). Democracy exists, but it is disabled as majorities fail to coalesce around important issues and where social capital evaporates for want of a common cause. This is the conundrum facing the university, as it has arrived at another junction in history, where the nation state and personal identity are both being simultaneously transformed.

The university is caught up in the turmoil of conflicting political, corporate, community and individual interests at a time when material conditions are being altered dramatically, largely through new technology. The most basic definitions and conventions of national security are being challenged and revised, along with accepted conceptions of individual autonomy, responsibility and identity. Much of the impetus comes from advances in communications and the unprecedented interconnectedness that is aided by instant information delivery. This makes available to states, and individuals, all the corporate advantages and cultural fruits of globalism. It also enables dispersed networks of social action, and the very worst aspect of this is the rise of international terror, presenting ‘asymmetrical’ challenges to conventional security systems, including threats to the personal safety of individuals. As a result of these and other global trends, the mechanisms and pathways that have defined and regulated the use of political power and state action are being redrawn and realigned. At this transition point in history, the university stands astride a busy intersection, bearing witness to these trends, but it is often left wringing its hands in search of an appropriate role. If history, as traced out here, proves to be a guide, this role is likely to be found in shaping emerging conceptions of citizenship and political organisation. This idea is explored in depth in Case Study 1 in relation to the advent of the networked university and Australia’s problematic role in moves towards Asian regionalism.

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Chapter III

Confronting the Politics of Rationality

Introduction

The structure of global power was marked in the second half of the twentieth century by the rise and rise of American hegemony, along with the shift from the stability of Cold War bipolarity towards a strained and uneven multipolarity. Individual state imperialism and adventurism was steadily overlaid by a superstructure of allied neoliberal states within a competing system of emergent regions with various clusters, and, sometimes unstable, alignments at the periphery. These changes at the global level were associated with the wholesale transformation of the state, to be examined in the coming chapters. At the end of the twentieth century, the changing pattern of international political power was mirrored – in almost predictable proportions – by a new global configuration of higher learning. The US maintained dominance as the fastest-growing, largest and most diverse system (Dill 2001, 78), but the threat of a consolidated Europe, along with the emergence of Asia, and particularly China, loomed large on the horizon.

The emerging era of globalism and multipolarity was associated with the radical evolution in the institutional form of higher learning towards the ‘networked university’. This represents a web of teaching and research centres, with mixed public and private support, sometimes of varied national origins and multiple locations, but connected by advanced communication networks. A single institution might be represented in various nations, either physically in the form of branch campuses, or ‘virtually’ via the Internet, prompting the idea that this is the precursor to the ‘globally-networked university’ (King 2004). However, the prospect of a ‘global university’ is overly ambitious. Many of the ideas behind the growth of the networked university were often inspired by the rhetoric of globalisation, but the empirical evidence suggests that the organisational form is constrained by local and regional demands (Case Study 1). The argument here is that the two-way stretch, between the global aspirations of the university and the demands of meeting local and regional material needs, can be destabilising. The changing structure of global politics is being accompanied by two parallel trends. The first relates to the way in which political change is associated with the transformation of intellectual authority, and changing concepts and theories of knowledge. The second trend, discussed in detail in Chapter VII, is how changes in intellectual authority relate to the transformation in the state. In theoretical terms, the argument developed through this and the following chapters is that the *reinforcing process sequences* associated with the

consolidation of higher learning in the post-war era became a *reactive process* in the final decades of the twentieth century, brought about by the consolidation of US hegemony and the impact of globalism. The empirical detail revealing the impact of this change only emerges by looking at the detailed flow of events, and this is done in the Case Studies that follow.

This chapter validates the co-evolution hypothesis that is at the theoretical core of the thesis argument, and the related claim that: intellectual ideas and conceptions of knowledge not only create the backdrop to political events, but generate what are the obscured mechanisms that shape and steer historical outcomes, as proposed in Chapter 1 (61-2, 84). The aim here is to test these ideas against the historical evidence that exists in relation to the interactions between knowledge and society. This is critical given that, by definition, these mechanisms are not readily apparent in the flow of historical events, precisely the kind of event that will be examined in the Case Studies. Up till this point, ‘co-evolution’ has been used in the broad historical context to describe the parallel and interdependent development between conceptions of knowledge and political organisation. This has focused on the way the organisation of higher learning relates to the formation and configuration of the state. This regular conjunction suggests some causal linkage, and an explanation for this has been offered in terms of their shared beginnings, their mutual responses to material problems and how these factors, having persisted through time, support the proposition that there are structural universals at work (Chapter II, 99) as originally put forward (Chapter I, 67-8). However, in order to develop a more robust theoretical conception, which could lead to showing how these mechanisms might continue into the future, it is necessary to explicate the way in which these causal relationships operate.

The key proposition here is that the generation of new knowledge requires certain organisational structures to exist, for complex reasons that will be outlined. These relate to the fact that higher forms of learning take place within – or in relation to – ‘broadly accepted cosmologies’ that demand the maintenance of institutional memory, or ‘academic tradition’. This constraint has been loosely codified to be broadly understood as the need for ‘academic freedom’. However, for the state to draw upon the instrumental value of new knowledge, it also requires a corresponding organisational structure, in order to fully communicate its needs and priorities. This suggests that the generation and transmission of useful knowledge takes place within a social context, clearly implying that knowledge generation is, as post-modern accounts suggest, fundamentally a social activity. It is necessary, therefore, to re-examine

critically these ideas in the light of the empirical evidence. It will be argued that a neo-pragmatic conception of knowledge, incorporating a thoroughly revised account of how knowledge is socially ‘constructed’, offers a more coherent explanation of the way in which science, or at least some parts of science, are part of the social world. For instance, this approach clearly distinguishes speculative science from science practice, making it possible to separate out the human organisational forms associated with the conduct of science, providing a better account for the co-evolution of technical and social systems.

The historical context in which this argument develops, broadly outlined above, shows how intellectual authority has been transformed in the post-war era, and in response to the rising influence of globalism. This was associated with the diffusion and a fracturing of intellectual authority (Halsey 1992, 261), leading to epistemic tensions and complicating the ethical position of the university. One implication of this is the failure of modern scholarship to provide a compelling critique of technological change that has, in turn, led to the growing dominance of science as a global corporate enterprise. The view here is that the orthodox acceptance of scientific rationalism is due to internal instability and epistemic tensions within the university. Furthermore, one reason for this is that the dominant critiques of science and technology are inherently pessimistic (Chapter II, Sect. C) and too easily dismissed as generally implausible, even when some of the claims are valid. This may be understandable, given that these critiques were largely framed and given their clearest expression in the context of the holocaust and the threat of nuclear annihilation. Nonetheless, by undervaluing the human benefits of technological change, critical theory has served to undermine its own social usefulness.

Section A

Intersections of Knowledge and Power

By the end of the twentieth century, debate over the role and future prospects of the Western university revolved around a shift in the relations between intellectual knowledge and political power, concretely expressed in terms of the rising impact of corporatism and managerialism. To varying degrees in different nations, these debates often stemmed from the tightening of regulatory controls, and the push towards wider economic integration through collaborations and partnerships with government, industry, and to a lesser extent the

community in general. These trends were accompanied by concerns that the institution was becoming more relevant on one hand, but was less able to pursue its core mission on the other. These global trends, though commonly depicted as the products of radical state reform processes, in reality followed the progressive transformation of intellectual knowledge during the course of modernity, substantially altering the way in which power was embodied within knowledge. For instance, where once the control of ideas came under the direct stewardship of individual scholars, and their collaborative peers, as Bauman notes, by the first half of the twentieth century, much of this control had begun to slip into the hands of publishing houses or their agents (1997, 21). However, these new stewards were unable to manage the territory for long, partly due to the rate of technological change, and the post-war era saw the rapid rise of a whole new class of knowledge brokers in the collective form of the mass media.

In very crude terms, intellectual authority could once be measured by the size of the crowd of disciples, or the number of students drawn from near and far to hear the words of a master scholar. The advent of print meant that intellectual authority became more a measure of the number of articles and books produced, and the level of critical acclaim these received. However, both these measures declined with the rise of mass culture, to be ‘dwarfed by television time and newspaper space’ (Régis Debray quoted by Bauman 1997, 21). Academic authority, once maintained through the tight, almost monopolistic control of ideas, which scholars and universities once enjoyed, became more dispersed as it was thrown into a competitive market. In the media marketplace, public attention itself is the most sought-after commodity, and it is both stimulated and fed by a media compelled to provide a constant flow of information and ideas, preferably in neatly-packaged forms, slotted into ready-made formats, making for easy digestion by mass audiences. This communication environment favours quick-maturing ideas that preferably relate to current concerns and events, rather than the slow and steady accumulation of esoteric knowledge, through which academic reputations might be established over decades, and even lifetimes. Entertainment value, even notoriety, is the key criteria determining which ideas are to receive attention. This has certain drawbacks: ‘Once notoriety takes over from fame, college dons find themselves in competition with sportsmen, pop stars, lottery winners, terrorists, bank robbers and mass killers – and in this competition they have little, if any, chance of winning’ (Bauman 1997, 22).

The wider dispersal and dilution of intellectual authority has coincided with the much

closer attachment and institutional affiliation of intellectuals, which has accompanied the commercialisation and professionalisation of academic social criticism. This now occurs less from the 'outside' on the periphery of society, as from a more central position 'inside' the institution of the university. However, this is also constrained within the context of a growing network of external obligations. Harman notes that the 'reformist zeal' of social scientists, evident in the 1920s and 1930s, had by the 1960s and 1970s begun to lose its force as academics became deeply engaged in helping governments across the industrialised world solve problems relating to poverty, health and education (2005, 81-2). In Australia in 2002, almost 60 percent of social scientists reported being actively involved in collaborative work with government and industry by way of external grants or contracts, though many complained of the pressure to generate external funding (Harman 2005, 91-92) as they were placed in the invidious position of appealing to, and working with, those same interests that might have once been the target of their reformist critiques. Where once the university might have predominantly nourished an active public sphere by its radicalism, it is increasingly in danger of serving private interests or those of the reigning political elite. The idea of university intellectuals defending the underdogs, and challenging orthodoxy, becomes more and more difficult, perhaps impossible, in a world of contracted research and collaborative partnerships. At the most extreme end of the spectrum, there might still exist some 'tenured radicals' (Jacoby 1997, 65) whose outsider status is maintained and supported by their celebrity, but how much they contribute to genuine social criticism, rather than simply feeding a media hungry for conflicting ideas and controversies, is open for debate.

Similar trends are occurring in relation to the generation and use of scientific knowledge, where 'new modes' (Gibbons 2003, 229-43) in the production of knowledge arise from the more complex interface between the university and the community, arising from a dramatic shift in the way in which research is funded from different sectors (Table 7 in Case Study 3; also see Appendix 4). This is consolidating the emergence of a 'post-academic science', where scientific research is defined less by its own disciplinary goals, and more by its engagement with various segments of society. The underlying causes are complex, but one incontrovertible factor is the increasing rates of scientific take up, which relates much less to the theoretical and speculative aspects of science than to 'science practice' (Ziman 2000, 67). This encompasses the routine procedures and processes that give science utility, giving it immediate market friendliness, and this also begins to define its political power. Most typically, disciplines able to win funds are those most heavily

theoretical, where knowledge is densely codified, and predictions are fairly reliable. They are based on mathematical and physical principles, often with wide application in engineering and other vocational disciplines, and which therefore has some influence on enrolments (Table 1, Case Study 1). Power permeates the ‘hard’ sciences, and to a much lesser degree the human and social sciences, which are usually less predictive, less cumulative, less reliant on codification and theory, and less applicable to any particular situation. In addition, Rouse also points out there is usually much less agreement about what constitutes good and bad work, making quality evaluation inherently more difficult (1987, 207).

For knowledge groupings, or ‘academic tribes’, those in the physical sciences are the most tightly enmeshed, publishing within a narrow cluster of journals rather than across a broad spectrum (Becher 1989, 148), as occurs in the humanities. They also organise their curricula from a narrow perspective, offering the most efficient means of demonstrating how past efforts led directly to the current research frontier (Fuller 1999, 589) so that this can be expanded quickly. This happens to a much lesser degree in the social sciences, except in some areas such as psychology and economics, which adopt the scientific model. Attempts to re-establish the teaching of the natural sciences on a basis that more closely resembles current practices in the humanities and social sciences, relying more heavily on historical frameworks, have a long tradition, especially within the history and philosophy of science. Regarded as a ‘phenomenological’ approach, this is associated with the ideas of Johann Wolfgang von Goethe and Ernst Mach, but receives little serious attention in curriculum development. This is in spite of increased reporting (Scanzoni 2005, 62) among younger generations of students entering science of being disillusioned by the ‘lower-order’ levels of learning required, such as the necessary rote learning, memorising the amino acids in proteins and the like, rather than engaging in the higher learning aspects of science that might consider ways in which science is used, and the purpose it plays in society. This disillusion reflects broad confusion and sharply divided community attitudes about the role of science in society, not to mention much antipathy within the humanities. As C.P. Snow once famously observed: there are but two academic cultures; the sciences and the humanities, existing at polar opposites, and between them is a ‘gulf of mutual incomprehension’ (1959, 4).

The ancient fault lines of this difference in perspective prompted Kant’s delineation of a ‘contest of the faculties’ (1991 [1798], 177-90); however, the lines of dispute have since become both more intense, yet more obscure in postmodern debates that focus instead on the

internal collapse of the university into an ‘epistemological vacuum’ (Barnett 2000, 33). This stems from the idea that propositional and contemplative forms of knowledge have collapsed as ‘rationalist fallacies’, and in place of ‘knowledge’ there now exists ‘knowledges’ that compete for attention (Barnett 2000, 35-6), implicit in which is the central notion that objective knowledge is impossible. This flows from the philosophical point that all truth claims are much of the same order, determined largely in terms of Wittgensteinian talk, or ‘language games’. In this fashion, Kuhn’s notion of scientific paradigms becomes generalised to the point that different forms of intellectual knowledge are indistinguishable as all knowledge is ultimately socially constructed, which in the end serves the argument that the epistemological core of knowledge, and the university, is empty (Nowotny, Scott & Gibbons 2001, 179-80). The logic of this critique suggests (Kivinen 2002, 194) that as propositional and contemplative forms of knowledge decline, and intellectual authority is ‘no longer extant’, disciplinary boundaries become irrelevant. In line with this thought, the ending of epistemic tension is also seen (Smith & Webster 1997, 3, 10) to be at the heart of the identity crises within the university, undermining the ability to embrace a common ‘motivating theme’.

There may be an underlying truth in this. Interdisciplinary conflict and the memory of how this has evolved, as part of learning traditions, is a large part of what makes the university unique as an institution, and it provides the substance of its legitimacy as a democratic institution, as explained later. However, it is argued here that this critique proved destructive when it deconstructed knowledge into ‘knowledges’ and what was ‘reasonable’ at a particular time and place. This was no doubt a legitimate attempt to give equal standing to different forms of cultural knowledge, but it had the political effect of at once polarising and trivialising debate, deepening inherent differences, causing fragmentation and disintegration as each discipline set about its own business, abandoning any common ground. The sciences defended themselves as exemplars of neutrality, objectivity and enlightened human progress. But they were also demonised as tools for misguided corporate instrumentalism and bereft of social and ethical value, responsible for crowding out the humanities and social sciences, by tipping the balance of financial rewards in favour of research activities able to win more immediate financial returns. From the 1980s onwards, the underlying tension from these debates helped to undermine cohesion across the academy, making it much less able to resist externally imposed changes that came in reaction to its post-war expansion. As shown in Case Study 1, when these inherent differences are expressed within a national economic

policy approach, their destabilising impacts are amplified.

Distinguishing scientific knowledge

Resistance is growing to the ‘strong sociological’ approach in which the pursuit of scientific knowledge is first and foremost a cultural activity. This is opposed to the idea that science is performed as an objective and verifiable practice that may, nevertheless, be influenced and mediated by cultural norms. Strong constructionism views scientific ideas predominantly as metaphors, and truth claims are therefore based upon preconceived notions of subjective reality. This confuses the actual role that social norms play in providing research agendas and setting investigative boundaries. Cultural factors go some way towards explaining why different research communities display a greater or lesser willingness to adopt or break existing normative conventions or constraints. The strong sociological approach to science represents the extension of post-structuralist critiques of literary texts beyond interdisciplinary boundaries, transferring the consideration of cultural specific habits of thought and judgment into the natural sciences. What drops out of sight in this process is the difference between contexts of enquiry, from statements that may be judged true or false, to matters of literary interpretation, where the assignment of determinate truth-values is rarely possible (Norris 1997, 2). The anti-realist critiques of science tend to be fairly selective in their reference to episodes and periods of scientific thought, and usually refer to the more speculative branches of recent theoretical physics as a basis for their ideas. In a similar vein, the anti-realist, or ‘ontological relativist’ approach is connected to a common misreading of Kuhn’s *The Structure of Scientific Revolutions* (1972 [1962]), where the changes Kuhn describes, the meaning variance, and paradigm incommensurability, are seen as typical, rather than atypical (Norris 1997, 29-30). This argument of ‘strong’ sociological relativism can be turned back on itself, in that even Kuhn relied on the historical examples of Aristotle, Galileo, Priestley, Lavoisier and the like, to make a case. This illustrates the point that the strong sociological stance tends to take social facts, interests, values, priorities and so on, as the privileged or objectively given domain, to which everything else, including a large measure of robust empirical evidence, must then be relativised. As a consequence, ‘scientific theory and practice, along with philosophy of science, are viewed by contrast as culturally emergent activities whose truth-claims, methods and disciplinary values must always be subject to the undeceiving rigours of a sociological critique’ (Norris 1997, 223).

Rejecting strong constructionism does not negate the idea that science operates within

an identifiable culture, set of beliefs or ideology. Ziman makes this observation in regard to the ‘symmetry’ debate, in which sociologists tend to bundle scientific knowledge into other forms of social life. He contends that while science is conducted within human society, and is therefore attached to social institutions, it needs to be distinguished by its particular procedures, practices and social roles. Those who ‘bracket out’ those distinctive institutional characteristics inevitably arrive at an extreme version of cultural relativism. This blocks the pathway to revising what he calls the ‘Legend’, the grand narrative of Enlightenment progress (2000, 5). A weaker constructionist approach clearly distinguishes forms of knowledge and their cultural relevance. This makes it possible to unravel relations between science, knowledge and power, given that only certain forms of knowledge provide conduits of power. A revised pragmatism still views knowledge as ‘what works’, following Dewey’s classical pragmatism. As Kivinen argues: ‘Knowledge is first and foremost a matter of doing, literally speaking knowing; scientific knowledge is not about how to describe reality correctly, but about how to acquire ways of action that enable us to cope with our environment, ourselves and other people’. All research can be seen as a way of learning where ‘tacit knowledge is achieved by learning by doing’, and by cumulative experiences of knowing how, so that knowledge is ‘caught but not taught’ (2002, 204). This idea is taken further by Allen (2004) who develops the idea that higher knowledge is an expression of superlative human achievement. What this means for the social sciences is much closer engagement, and experimentation, with the community, sometimes working to generate new perspectives, and seeking ways of understanding and deliberating on the future. Within this conception, fields of endeavour become more akin to divisions of labour that require revision in the face of changing intellectual perceptions and demands for social relevance.

Section B

Knowledge, States, Trials and Errors

A neo-pragmatic conception of knowledge embraces the idea that knowledge generation is mediated though not necessarily governed entirely by the surrounding social context. This view has empirical support in the outcome of the great historical experiments in state formation during the twentieth century, as discussed here, and the way in which state structure can determine the nature and scope of academic autonomy (Case Studies 2 & 3). The collapse of communism as a state ideology – and as an imposed intellectual framework –

has given way to the dominance of Western political ideology, and the spread of a ‘culture-ideology of consumerism’ as the prerequisite for global capitalism (Sklair 2002, 169). The ascendancy of the Western political model, based on notions of free trade and liberalism, may be understandable in raw political terms as an outcome of the Cold War. However, what was less obvious was the way in which the dominance of Western politics correlated with the rise of a certain type of scientific and intellectual thought, a type favoured in the mid to late twentieth century, though not necessarily fully representative of the Western tradition. The argument here is that the ascendancy of Western market liberalism brought with it the assumption that this was associated with a particular approach to science, an assumption that may be difficult to defend after examining the Soviet experiment more closely, and also reflecting upon the impact of Marxist doctrine within the Soviet Union and the West.

In this respect, it is useful to look at the fate of logical empiricism, mentioned earlier (Chapter II, 88). Notably, in the anti-communist hysteria of the McCarthy era and early Cold War, it was not only celebrities who were targeted in the 1954 congressional hearings on communists. Although it might not have generated quite as much of a public spectacle, the committee on ‘un-American activities’ also thoroughly investigated American universities (Cole 2005, 5). This brought the public face of logical empiricism, the Unity of Science movement, under close scrutiny. One of the movement’s founders in the US, Charles Morris, had written in 1939 that the hope was to develop a ‘unified scientific language’ to present results of ‘logical analysis in various sciences, with problems relevant to the foundations of the sciences’ (Morris quoted in Reisch 2005, 12). The overall aim was to arrive at a sense in which science formed a ‘unified whole’.

Logical empiricism, therefore, was extended across the physical and social sciences, and many of those embracing it in the 1940s and 1950s were interested in the use of science as a method as well as a means of social progress. This included some ‘avowed socialists’, the result being that the movement was painted as collectivist, and even totalitarian (Reisch 2005, 27). As such, it was out of step with the ‘celebration of individualism’ occurring in politics and society, which was also feeding back into social theory. Reisch argues that as a direct consequence, logical empiricism retreated from its social project to become apolitical, technical and professional, to the point that it was pared down to its bare empiricist and positivist roots, opening the way for Kuhn to examine the conduct of ‘normal science’ and criticise its lack of social and historical context (Kuhn 1972 [1962], 1). The implication of

Reich's work is that the dominant culture of science did not necessarily evolve in any sense naturally, guided by nothing but its own success. The 'republic of science' (Chapter II, 78) that exists today, operating under the strictures of neutrality, verification and repeatability, was therefore extracted from a much larger Enlightenment vision. It was removed from its immediate cultural and social context by the flow of major political events. In this way, the culture of science was shaped, and its general equilibrium perturbed by the recent events of history.

Loren Graham spent a career examining Soviet science and technology. He points to other key aspects of these historical developments that illustrate the relevance of a neo-pragmatic approach. In reflecting upon his research, he found that when the Soviets were found to be conducting 'good' science this was viewed by the international community as 'international science'; however, when Soviet scientists did 'bad' science, this was explained away as the product of Marxism. So when Soviet science departed most dramatically from Western science, in the case of Lysenko's mistaken form of biology, this was explained as the result of Marxist ideology and political interference (1998, 5). The political ideological rejection of the gene as a biological form, and the consequent failure of Lysenko's biology, might suggest that no matter how strong the political will, and however social reality might be constructed, there will always remain 'irreducible and stubborn' facts, in Whitehead's words. On the other hand, success deriving from dialectic materialism tends to be submerged in the general lessons of twentieth century history. For instance, the work on cognition and linguistics by the 'Mozart of psychology', Lev Vygotsky, is well regarded in the West, but the fact that the research grew out of a Marxist critique of Piaget's theories tends not to be widely acknowledged. There are numerous other examples of the positive influence of dialectic materialism, such as British astrophysicist Stephen Hawking revising his thinking on the 'big bang' theory, being forced to adopt an 'inflationary model' developed by Soviet researchers (Graham 1998, 11). In general terms, it may be fair to say, therefore, that Marxism seriously failed as a political project, but this was not necessarily true in regard to dialectic materialism as a useful intellectual framework. In fact, it was more a case that this proved a firm basis for the successful conduct of science.

Even with the collapse of the Soviet Union, many Russian scientists continued

to favour dialectic materialism as a philosophy of science. A Marxist world revolution might be a remote possibility, but the basic maxims of dialectic materialism, that nature objectively exists, and that knowledge derives from human interaction with nature, may prove more reliable. The varied success of dialectic materialism also raises questions about the conduct of Western science. In the Western model, advances in research, and especially basic research, are very often seen to result from conditions of freedom of thought, free inquiry and freedom of speech, that is, conditions that in part define liberal democracy. However, Soviet advances in pure mathematics, in psychology and other areas, suggest that these conditions are not determinative, but incidental, and that the relationship between academic freedom and advances in basic research are much less direct. This in turn raises fundamental questions about accepted conventions of scientific neutrality and the possibility of objectivity.

Section C

The Co-Evolution of Rational Systems

What is evident in debates over the way social and political ideas interact with science is that science, as an intellectual exercise and scholarly pursuit, needs to be better distinguished from the instrumental application of accepted science, as it routinely occurs beyond the academy, such as throughout government and industry. Ziman's real point about 'science practice', touched on earlier, is that it has become ubiquitous since the Scientific Revolution; its norms, procedures and regular routines now shape the structural conditions within which humans go about their daily lives. Science practice is the point at which political power and science combine, in ways that go far beyond traditional theories of political action and widely-accepted processes involving expert lobby groups and scientific advisory networks; it is a world in which science becomes linked to its own sociology, and through which epistemological revisions are brought about, due to changing norms. Rouse (1987) throws a clear light on this dimension of science by extending Foucault's idea of power relations found in prisons, hospitals, barracks, factories and schools, to the laboratory. Procedures that are required in the laboratory become controls that govern the body's activities, making the body an instrument and an object of new knowledge,

programmed into a sequence of steps performed in order to gain efficiency and productivity. In this way, time penetrates the body, each act and every articulation being broken down into its elements, performed in a prescribed period.

By this analysis, laboratory practices, the process of isolating, measuring and observing, become the panopticon writ large; classification becomes a form of power, providing intelligible ways for people to be understood, and to understand themselves, and things around them, in the very same way that Rose (1999) applies Foucault's 'technologies of the self' (Chapter II, 103). Categories become the subject of various actions and constraints, of the kind discussed earlier in relation to the use of government data and professional practice, shaping individual lives, creating constraints and freedoms. Laboratory practice extended to the outside world becomes a form of social organisation with latent political power. Science practice is creating what Rouse describes as a 'new empiricism' (1987), which demonstrates how science can progress across its own 'theoretical revolutions', given that theory is culturally determined and may go anywhere. What this means is that the practical achievements of science gradually build upon each other while scientific theories are being reformulated, dispensed with, revised, reconsidered and so forth. The identifiable empirical phenomena that is captured in the process can be agreed upon even when the theories that led to their discovery are rejected, and it is this 'stubborn' phenomena that makes strong social construction of science impossible as it highlights the flimsiness of its central tenets, such as 'facticity' (Latour & Woolgar 1979, 239). Moreover, new empiricism explains how the essential mechanisms operate through which layers of infrastructural human technological capability – outlined in the preceding chapters – continue to expand and advance cumulatively across generations, through historical epochs, yet appear as seemingly static backdrops, the 'dark matter' of history.

None of this necessarily goes to suggest that empirical agreement captures an irreducible 'objective reality', which, as Whitehead warns, will lead to a misplaced sense of 'concreteness' (1933, 64-9); however, it does demonstrate that the technical power of science results from something other than just the representational accuracy of theory. Power resides in scientific skills, practices and techniques, and these are preserved and reproduced by human habit, through routine and accepted norms and values. This conflicts with the Platonic notion that real knowledge, other than theoretical knowledge, cannot be taught, nor understood; however, it is a view that reinforces the neo-pragmatist contention that

propositional forms of knowledge have a particular role, though not necessarily as ends in themselves. Theories and scientific concepts may be revisable, but less so is the empirical world that they identify. Human action has been highly successful in elaborating upon this empirical world, thereby transforming the structural conditions in which humanity resides. It is in this tightly constrained and qualified sense that ‘social construction’ of the material world, and therefore science, becomes a possibility.

Rouse makes the astute observation that scientific ideas and procedures do not necessarily extend out of the laboratory because of major theoretical findings or universally-accepted ideas, but through a much more prosaic process that can be equated to ‘capillary action’. This comprises the broadly accepted routines, the overlapping and selectively reinforcing practices and the scientific techniques that have their own rationales, and which any product of the laboratory tends to deterministically reinforce. These are the necessary procedures for an orderly modern urban life. They serve the very same purpose as the monastery clock as it began to order and regulate village life, but the procedures and routines are now far more complex and deeply embedded in urban technical systems. They include, for instance, an individual’s habit of hand washing to monitoring a person’s entire body chemistry with the aid of ‘routine’ medical tests and carefully prescribed nutritional intakes. These are minor aspects of modern life, but they serve to illustrate the need for a massive interlocking technical apparatus, the central organising principles of which have moved steadily towards the laboratory. Where Foucault sees the panoptical prison as the model of a carceral society, Rouse sees the laboratory as a ‘comparable but more adequately realized model for the calculative world’ (1987, 241-2).

The ultimate calculative device – the computer – illustrates the way in which social organisation quickly becomes coupled to the instrumental power and efficiency of a device only recently emerging from the laboratory. This is creating what Castells describes as the ‘network society’, structured around the ‘bipolar opposition between the Net and the Self’ (1997, 63). Information technology is driving, and *configuring*, the development of new social and political relations across the Asia Pacific, particularly within the industrialising economies of East Asia, and this is explored in Case Study 1. This cross-influence and inter-connection of the scientific, technological and social is not a new phenomenon. The co-evolution of scientific ideas, with technological and social forms, as previously discussed, was seen in the routine clockwork of monastic life which replicated the known universe,

providing a basis for the Enlightenment, and in the way in which advancing technology facilitated and shaped political processes. This was evident in nations ‘born modern’, the children of the Enlightenment, as might be said of Australia and the US (Chapter II, 86-7, 89; Case Study 3, 209-11). The co-evolution of technical and social forms can be observed from the rise of human society and is of abiding interest to prehistorians as technology gives insight into the symbolic and cultural life of pre-modern societies. A celebrated example is Lauriston Clark’s work from the 1950s on the use of stone axes by the Australian tribal Yir Yoront group. This tool, for exclusive use by men, provided a symbol of leadership, a focus of trade and a tribal totem all in one; the technological form was elegantly incorporated into social, cultural and spiritual life. This ‘symbolically expressive’ design was a distinct feature of pre-modern societies (Feenberg 1995, 220-1).

Section D

The Illusion of Rational Autonomy

Modern artefacts are distinct in that they are embedded, interconnected and interdependent, so that modernity occurs in layers of rational social and technical systems. Unlike the Yir Yoront’s axe, the cultural significance of artefacts is not invested in a single item, but ‘through the illusion of rational autonomy’, artefacts are imbued with a technical innocence and neutrality rather than being elegantly incorporated. Significance is created separately, by design features, and through marketing, to give items particular appeal and meaning. The elegance of technology is in the way it fits and extends the interlocking system of rational and social systems, that is, the extent to which it is ‘systematically congruent’ (Feenberg 1995, 228) to become part of the chain of dependencies in which humans live within their cultural and natural environment. Feenberg connects ‘autonomous rationality’ and the common misconception of technology being wholly material in nature and, therefore, politically neutral, with the ‘arrogance’ of scientific objectivity and universal reductionism. However, the difficulty in the relativist position of complete rejection of scientific objectivity is that it is impossible to also dismiss the massive accumulation of industrial and military power of Western culture derived from networks of congruent design. Rightly, he concluded that relativism is useful for countering the most pretentious claims of objectivity, ‘but it jousts with a simulacrum of science and technology, not the real thing’ (1995, 222).

While the creed of Western science and technology is rooted in ideas of neutrality, some professionals – engineers in particular – find that large complex systems rely upon a degree of interconnectivity and interactivity between technical sub-systems and social systems; that is, they are ‘socially coupled’. After the Three Mile Island nuclear accident, Charles Perrow came up with the notion of ‘normal accidents’ because of what he described as two related dimensions of system susceptibility: interactive complexity and loose/tight coupling. Systems with interactive complexity and tight coupling would experience accidents that could not be foreseen as these were ‘system accidents’. When a system is interactively complex, independent failure events could occur in ways that could not be predicted by the designers and operators of the system (Perrow quoted by Marais 2004, 1-2). While accepting Perrow’s general thesis of interactive complexity and tight coupling, systems theorists reject the conclusion that big complex systems ‘normally’ go out of control, arguing that reliability and safety are as much a product of human factors as technical factors, pointing to the organisational failures behind the Shuttle disaster as a compelling case in point (Vaughan 2005, 33-66). From a systems approach, reliability and safety are the product of the ‘simultaneous consideration of social and technical aspects of systems, including social structures and cultures, social interaction processes, and individual factors such as capability and motivation as well as engineering design and analysis techniques’ (Marais 2004, 13). The idea of ‘socio-technical’ design is now becoming more broadly accepted in large complex systems. At another level, what Juma describes as ‘co-evolutionary interactions’ are being observed between technical innovations in biotechnology and institutional design, and these are manifest in initiatives to address ethical standards, safety and environmental regulation, socioeconomic considerations, intellectual property protection, and international trade. Literature on the topic shows up ‘contours of a new world in which advances in the biological sciences influence the design of technological systems and the shaping of social relations’ (2005, 266). Case Study 1 argues that a similar phenomenon can be observed at the macro level in relation to the rise in ‘knowledge exports’, the impacts of which invariably have significant social ramifications.

Rouse (1987) laid the theoretical grounds for ‘tight coupling’ in which complex scientific and technical systems carry particular social, and, as a consequence, political imperatives. In fact, the idea that technical systems demand certain types of political organisation can be traced back as far as Plato, who accepted that a ship at sea was always best controlled by a single captain. However, Rouse extends this to the age of science,

articulating the mechanisms that forge tight coupling in systems that are modelled within the laboratory, and which tend to be time dependent, constructed with invariant and non-interchangeable sequences and have built into them minimal slack in their use of resources (1987, 213). The rigid demand for certain inputs, within set times, and sequences, involving certain human skills and forms of organisation, illustrates how scientific practices lend themselves to particular social and political environments. The birth clinic is a typical example as it relies on carefully-timed interventions and procedures, all of which intensify risk of infection or abnormality, intensifying the need for neonatal care, so organisational systems beget systems (Rouse 1987, 232). This brings an accumulation of power within the medical fraternity, but not through any conscious choices made by individuals or groups, nor by the determination of a political process.

Rouse draws heavily on another case where details are well known: the tight socio-technical coupling that occurred at the national level as a result of the adoption of high-yielding rice varieties with the Green Revolution in Indonesia. This illustrates, in the first instance, how a laboratory process is transferred into the larger world, and secondly, how this is coupled with social organisation. High yielding varieties demanded certain conditions in the field that were laboratory like, which made it necessary to alter natural conditions, and for certain types of plants to be used. As a consequence, the new agricultural systems required higher energy and capital inputs. In turn, this had an effect upon social organisation, leading to larger holdings, and making farmers more dependent upon particular supplies and industries, all of which had political implications. A critical element that Rouse overlooks in this case is the degree to which the high yielding varieties, and the new farming systems, led to Indonesia becoming self sufficient in rice, notwithstanding the heavy costs in the loss of traditional farming systems, loss of genetic diversity, and general impact on social and cultural life. Similarly, Rouse is pessimistic in his analysis of the birth clinic, neglecting many benefits that have derived in terms of improved child mortality and health care.

These blind spots can be attributed to an intellectual culture of ‘technological pessimism’ (Chapter II, 90-2), which undermines the plausibility and utility of critical theories of technology. Consequently, Rouse also overlooks the revolution that took place from the 1970s in which patients have become politically mobile; forcing

modification to medical practices and techniques, achieved by advocacy within the medical system, to bring about a ‘revolution in childbirth education’ (Feenberg 1995, 39). The results of this are the spread of birth classes, the use of midwives, and use of birth centres, all of which changed the role of women, and men, from passive, to more active participants in the birth process. Disregarding this inherent pessimism for the moment, Rouse is successful in describing systematic processes that are not generally accounted for in accepted political thought. These processes occur at the institutional level, the national level and increasingly at the international level. This is due to the rapid expansion in knowledge exports and scientific exchange (Case Study 1, 158-61), and also because of the impact of technologies, such as genetic engineering and information technology, that have enormous universal application and are likely, therefore, to demand particular forms of social control and ethical regimes.

In many respects, the examples of the birth clinic and the Green Revolution merely point to a social-technological phenomenon, that is, the treadmill of technical necessity that is a central condition of modernity due to the very privileged place of instrumental rationalism that has led to the growing interconnection and interdependence of human and technical systems. As a result, the technical, social and political imperatives now driving the generation of new knowledge stretch beyond traditional theories of representative politics and democratic decision-making. That accumulated knowledge and scientific practice represent a form of political power needs consideration as part of the equation of representative democracy, a point that becomes critical when revising the case *for* the university (Chapter VII, 235, 52-3).

Section E

Technocracy by Default

Under the veil of ‘autonomous rationality’, the social and political consequences of technical systems are rarely taken into account, at least till after the event. In practice, what most often occurs is that when the social impacts of technology emerge, these are put down to ‘unintended consequences’. Affected groups become politically mobile, generating debate and negotiations aimed at bringing about modifications or political and organisational change to manage and control these unforeseen impacts.

At other times, groups become mobile, either early in the process or even before the event, and as has occurred in relation to the use of nuclear power and genetic engineering, public debate become polarised. Corporations, bureaucracies and professionals are usually at the centre of these debates, seeking to drive technology forward, but the broader political implications of technology are very rarely understood or broadly acknowledged, such as the way in which technology can serve to deepen the entrenched interests of particular groups. A similar set of assumptions can be found, as observed in Case Study 1, in the orthodox attitudes towards higher education, and the way in which knowledge has been commodified as part of a growing export industry.

The political power embodied within knowledge and technology is analogous to a new form of 'legislation', whereby the technical codes reflecting particular social interests govern how and what people do, the food they eat, how and where they are entertained, how they communicate, how they work, and so forth. As Feenberg rightly argues, 'if technology is so powerful, then surely it should be measured by the same democratic standards as other political institutions' (1995, 5). Predicting the absolute consequences of new knowledge will always remain fraught with difficulty, but the important political question really relates to who has a voice in the conception, design, and the organisational control of new technology and complex systems; whether it should be in the hands of technical elites, government and bureaucracy, or in the hands of affected communities and stakeholders through processes involving participatory decision-making? How would a truly representative technocracy operate?

These questions naturally relate to much larger scale social and political issues and processes that operate at the wide intersection between knowledge and politics, and many of these go beyond the realm of the academy; however, the university is implicated at the most fundamental level in these processes due to its critical formative and transformative role in organisational change, as demonstrated in the course of this thesis. Only very broad conceptions of this function are contained within the common notions of the social mission of the university and how this is supposed to shape scholarship and research. These commonly held notions are not necessarily flawed, but they are often poorly articulated and tend to be conveyed by convention and rhetoric more than soundly reasoned argument. In its fullest

form, the civil and social purpose of the university would extend, at a very broad level, to take into account the formative and configurative role of higher learning. The Case Studies that follow outline the explanatory variables that represent key mechanisms through which these factors become grounded in everyday political events.

The proposition to flow from this is that the formative role of higher learning and the impact of routine science have underlying impacts upon policy, research agendas and the discourse that surrounds the process of research design and execution. The reasoning behind this is: if technology is properly conceived as a form of ‘legislation’, as suggested, the university, therefore, performs, albeit unacknowledged, a quasi ‘parliamentary’ function. The academy as a whole, and particularly the university, is central to the way in which new ideas and embryonic technologies develop. Moreover, it is the single place where a community – or at least the vestiges of a community – continues to exist within a single institution. Within a democracy that is dependent upon the evolution of technical systems, the university is a potential arbiter. It represents a ‘broad church’ where intellectual traditions stretch across competing disciplines. It is unique in this role in that it possesses the technical and critical attributes for developing new codes and concepts (‘legislating’), and for appraising their possible social implications (‘reviewing’), yet this combined function is systematically ignored and downgraded.

That the university is a key institution with the capacity to generate ‘new codes’ that govern daily life has been well demonstrated (Chapters I & II), and this idea is often broadly accepted intuitively. What is contested, however, is the political reality that the institution appears to be steadily losing the power to autonomously determine, and recommend, the appropriate ways in which these codes should be conceived, written and applied. The university is by default becoming more central as a democratic institution as it nurtures ideas and cradles the technologies that constitute the fabric that regulates civil life. But how well are its ultimate constituents – in society at large – represented in the balancing between intellectual freedom and the demands for accountability? International trends suggest that institutional and academic autonomy is undergoing revolutionary change due to the same factors that are reshaping academic identity. Broadly speaking, policies forcing greater market competition have also brought higher levels of institutional autonomy, especially for the better resourced, more prestigious universities, but this is also offset by increased regulation and financial accountability. Issues related to intellectual freedom are again more

complex, and often depend upon the institutional and national context. However, compared to the past, there is an observable (Macfarlane 2005; McInnis 2002) disengagement by both academics and students in the civil life of the university. In some instances, this can be attributed to fragmentation and division between the executive and the academic community as a whole (Case Study 3, 214). This is also a function of wider external integration and the mix of corporate and collegial cultures that inhibits the scope and motivation for interdisciplinary discourse. The whole question of what potential exists to counter these trends is addressed in Chapter VII.

At the same time, the meaning and substance of ‘academic independence’ is becoming more critical due to the changing nature of the scientific enterprise and its incorporation into new modes of knowledge production, and economic activity, through closer and wider interactions between the university and society. This generates tighter co-evolutionary links between human and technical systems, but also diminishes the role of technical elites, as ties are strengthened between knowledge producers and users: ‘Just as time and space have been effectively recombined into a more capacious category of “space-time”, so it has become increasingly difficult to establish a clear conceptual demarcation between science and society’ (Nowotny, Scott & Gibbons 2001, 48). This may overstate the case, but it is a reasonable point that the activity of science and scholarly research, in becoming engaged and integrated, has also become infiltrated, co-opted, and more easily coerced, and this reflects a more literate population, resulting from two generations of mass education. Consequently, there are now many fewer ‘incompetent outsiders’ and many more informed insiders. What is seldom made clear, however, is from where exactly on the political spectrum do the various participants in the ‘legislative’ processes of the university originate.

Along one axis, science in its disciplinary activities is increasingly more permeable to the intrusion of political power. Along another axis, through ‘science practice’, the organisation of science by self-regulation, peer review and elite networks is being diffused and fragmented, bringing about the ‘radical, irreversible world-wide transformation in the way science is organised’ (Ziman 2000, 67). This transformation of intellectual authority within the sciences has some significant features. Modern science is marked by the continued proliferation of specialisations and sub-specialisations across disciplines, which tends to expand its ‘bottom-centred’ organisational boundaries outward (Clark 1983, 35-6, 178) rather

than upward. In turn, this diffuses the coherence of scientific and technical elites as their pools of disciplinary peers naturally grow smaller. This is accompanied by various trends – detailed in the following Case Studies – including the heightened role of advisory councils, government sub-committees and boards, populated by a mixture of academics and civil servants, whose role is setting research agendas and forming priorities. This regulatory system helps to facilitate the growing interface between research and industry, within a framework of national industry, science and technology policy. However, one outcome of this bureaucratisation is that the ‘republic of science’ is becoming less coherent and losing its capacity for self-organisation. This is evident by the increase in scientific fraud, and the failure of scientific elites to accommodate societal demands for accountability (Nowotny, Scott & Gibbons 2001, 46-7) as this is increasingly imposed externally. The traditional lines of power regulating the generation of knowledge are shifting, and this power is being re-accumulated, mostly by bureaucratic, corporate and state interests. Higher learning throughout the world is being transformed in the process, and a new and more rigid hierarchy of academic organisation, driven by commercial and regulatory imperatives, is overlaying and replacing the traditional hierarchy. Its precise shape and form depends heavily on the way in which the academy is integrated into the national political framework, as illustrated in Case Studies 2 & 3. At the global level, this hierarchy has predictable characteristics that closely mirror international power relations and point to emergent organisational forms and regional concentrations.

Conclusion

What emerges from the train of events leading up to the establishment of the university in its present form is that institutional structures are much less important than what occurs within them. Traditions of scholarship and learning are embodied in institutional arrangements that become transient structures through which the agency of human knowledge is propagated. Institutional forms vary in the degree to which they reflect emerging conceptions of knowledge, but they invariably move towards containment, and towards possession, in ways that seek to control and ‘capture’ its essence, which is never quite achievable. Over time, as conceptions of knowledge change, the social fabric that supports the institution becomes rigid, whether this is the academy’s own institutional arrangements or those of the state. This process was clearly apparent at the macro level during the seventeenth century in the lead up

to the Scientific Revolution. The vigour of humanism waned as the university became almost an extension of aristocratic privilege (Chapter I, Sect. D). At the state level, this process occurred at various times, such as during the late Tudor period in Britain, in Soviet Russia, and in post-war Germany. While the generation and sustenance of knowledge requires organisational structure, it also requires infinite scope for structural change:

Since learning and personal initiative go hand in hand, the university aims for the broadest possible development of independence and personal responsibility. Within its sphere, it respects no authority other than truth in its infinite variety, the truth which all are seeking and yet no one can claim to possess in final and complete form. (Jaspers 1960 [1946], 66)

The fundamental conceptions of knowledge, and broadly accepted cosmologies, bring meaning to academic procedures, contextualise academic traditions and inform the construction of academic identities and ideal forms of organisation. This dialectic drives the evolution of the university. Institutional memory in the form of accepted methodologies, paradigms, traditions and cosmologies in part determine the pathways through which new knowledge is created. These are in constant interplay, and negotiation, with the immediate institutional arrangements, determined by the social and political constraints of the day. These two intersecting forces, the content and the form, determine what is conceived of as the university. In other words, the university is comprised of its supra-institutional memory as much as it is a social and institutional organisation. Moreover, the university's capacity to survive, and avoid being wholly contained by the state, is found within this supra-institutional form. The mythic codes of objective reason, dispassionate analysis and 'conversations with the ancients' hold functional importance. Through these, the university retains a living memory, and an evolutionary history, of the rise of *homo sapiens* as urban dwelling technological beings.

However, the historical evidence suggests that this conversation needs to have pragmatic resonance; that is, it must confer social utility and meaning, represented by an ability to answer pressing questions of the day and to adapt when confronted by the 'irreducible and stubborn' facts. This is central to the process in which the structural role of higher learning was *sequentially reinforced* in relation to the state. The academy was instrumental in the creation of the state: it ushered in modernity, and it

facilitated the rise of nation states and the ambition of empires. The university is now in the vanguard of emerging globalism, carrying with it both a living memory and the institutional baggage from its evolution. It encounters cyclic pressure for reform and renewal: a need to peel off its institutional layers of skin, much of which has been fabricated from the surrounding social and political milieu, and this is done in order to keep alive its memories and traditions.

When the vision of the university is narrowly conceived, originating from within a set period in history, then there is an orthodox bias in the prescriptions aimed at renewing its civil purpose. For instance, when the university was dominated by religious dogma, humanism was seen as a renewing force. When humanism was the reigning orthodoxy, scientific rationalism was embraced as the renewing force. Current concerns about a crisis in universities are often associated with the ravages of scientism and quantification, having led to an emphasis of management over collegialism. The proposition put in this thesis is that the zealous embrace of managerialism was often associated with flawed conceptions of globalism as a kind of homogeneous future state. Many of the ideas behind this led to a new form of social rigidity and orthodoxy, setting off a *reactive sequence* in the cyclic processes that occur between the academy and the state. Evidence for this is found in the way local and regional imperatives compete against, and are in conflict with, global pressures and trends. This idea is tested in Case Study 1.

Academic traditions are often conveyed within the great mythic imagination and the national histories of the university, and these are valuable in their propagandist function but often break down under close scrutiny. For instance, the Oakeshottian ideal of unfettered reflection, while based on a mythical conception of the university, nevertheless taps a deep intuitive sense of the need for separation between university and state as important as that between church and state and the separation of constitutional powers. However, this also denies the intensity and complexity of the relations between state and university, an inherent feature of their antecedent relations, reinforced by their historical partnerships, which altogether make issues of autonomy far more conditional and negotiable. The university community often possesses a sense of the need for much more than a facade of autonomy. On the other hand, the state views the idea of conceding absolute

autonomy to the academy as unrealistic. As a result, the mid-way point of substantive autonomy, somewhere between these poles, is usually negotiated and seen to be in keeping with the nature of pluralist democratic society. However, this is rarely well codified and may be impossible to fully express in legal terms, given the changing nature of the relationships.

The university often defends its autonomy in rhetoric, expressing its ‘mission’ in terms free inquiry and social responsibility, but this is easily viewed by the state as being ephemeral; similar to monastic garb, it is viewed as more ceremonial than essential to the lifeblood of the institution. What is argued here is that when the university is rightly viewed as an institution embodying civility, enlivened by the traditions of universal knowledge, *eruditio* and *sapientia*, these adornments become symbolic reminders of the functional role of higher learning, making concrete the reasoning behind intellectual independence. That is, the essential function of academic autonomy is in the symbolic power and legitimacy it brings to the institution, serving primarily a civil purpose in counterbalancing the political power of the state. The substance of this claim lies in the fact that the university, in its symbolic and instrumental roles, has historically provided much of the cultural, social and technical ‘ballast’ of the nation state (see esp. Chapter I, Sects C & E & Chapter II Sect.B). Consequently, it broadly reflects the nature – or general configuration – of relations that exist between the state and society as a whole and can, therefore, provide necessary counterpoints. The concepts, codes and ideas that it generates and infuses into society can be socially and politically transformative or static and reinforce existing patterns of privilege and inequality. This hinges on the equilibrium between the symbolic power of the university and the power of the state. This is evident in that organised higher learning, embodied in the university, played a formative role in the rise of a modern civil society, often counterbalancing to the rise and success of the state system.

As an entity, the university has become difficult to differentiate, though its ancient traditions are much less open to radical revision. From the 1800s, the institution was at the centre of a constellation of higher learning entities. The specialisation and proliferation of disciplines and sub-disciplines continued into the nineteenth century, gaining pace in the early twentieth century. By the latter stages of the twentieth century, the institution was

undergoing another radical transformation, becoming more global, more heterogenous, corporate and performance-based. The forces shaping the institution – which feed back to define its structural conditions – are increasingly based upon quantitative measures. These are not the same collegial, cultural and national imperatives that provided the feedback mechanisms described earlier as shaping structural conditions, but generic measures that are more uniform across the globe. The universal move towards these global measures are in large part *reactive* to the internal debates and internal dynamics of the academy as much as they represent a response by the state to global trends. This is in turn creating a new and rigidly stratified hierarchy, which is overlaying and superseding traditional academic oligarchies and organisations. The important general point is that the broad cyclic pattern, through which humanism had reached a peak in Europe and began to wane during the seventeenth century, occurred as the state system was expanding. The very same pattern appears to be occurring as scientific rationalism, having reached its peak in the twentieth century, is associated with the growing impact of globalism. On one hand, in the academy, the deep entrenchment of ideas ultimately causes a lack of vigour. On the other hand, their entrenchment in politics tends to assist the further accumulation of power, at least for a time, after having lost their glimmer in the academy. The historical discussion to this point has outlined the mechanisms through which these broad life cycle patterns in knowledge occur while the Case Studies will examine the corresponding shift in the state system.

A key proposition to be tested in the case analyses is that the imposition of global standards can lead to instability by undermining self-regulation, and this is evident when academic decision making shifts into the realm of the state (Case Study 2). An indication of this process is the level of fragmentation that occurs within the academy (Case Study 3), reducing its ability to provide a counterbalance to state power. It is argued, however, that these events can also be linked to the re-conception of state power, which entailed the reconfiguration of the academy, and this needs to be seen in the context of changing notions of academic authority. As the university is increasingly enmeshed with society and the state, the urgent question it faces is the degree to which the academic enterprise ‘reflects and refracts’ the external environment, and to what extent it serves a distinct civil function, that is, as an independent variable in the democratic process. Pivotal to this question is the issue of how best to define and achieve academic autonomy, which is taken up in Chapter VII. As the university moves from relative isolation and insulation to a more complex

embedded position, the feedback processes through which knowledge gives shape to structural conditions are more direct and more responsive to the material circumstances of the day. This calls for a revision of traditional notions of academic freedom as preconceived notions established through tradition and disciplinary conduct may be less relevant. As the university becomes more central, and its feedback processes become more intense, the codes and concepts that it generates need to be seen more in terms of 'legislating' and 'governing' daily existence. Conventional reasoning behind notions of academic democracy and autonomy may need to be revised within the context of this whole new dimension of social responsibility.

These issues become more pressing in light of a steady move towards the re-conceptualisation of what constitutes knowledge, shifting away from the former polar extremes towards a middle ground, not simply as a compromise but due to compelling empirical evidence. Current notions of the university, *the idea of the university*, and how this relates to society and the state, tend broadly to reflect previous conceptions of knowledge and the sharp polarity between arrogant objectivity and cultural relativity. What has emerged from historical experience is that pragmatic knowledge mediates and shapes emergent social and political organisational forms, which in turn can feed back and shape the process of knowledge generation. At the most elementary level, therefore, the binary relationship between the academy and the state is a two way flow, a stream of reciprocal interaction. Over very long time lines – such as those covered from the beginning of Chapter I to the present – it has been possible to trace the connections between knowledge generation, human technology and political organisation, and to show how these connections are influenced and mediated by the power of ideas and the constraints of material circumstance. Moreover, it has been possible to show how *reinforcing sequences* occur throughout these interactions so that modes of knowledge generation become embedded in technological and social systems, which then govern the manner in which higher knowledge is generated. Reactive sequences stand out sharply as an indication of when this process falters, and these can be associated with the containment and capture of the academy, that is, when social and political constraints dominate the interaction process, either due to the academy itself becoming sclerotic and out of touch or to the rise of authoritarianism and oligarchic rule.

What may be useful, at this point, is to examine how these general principles operate within the context of the modern liberal democratic state. However, in order to do this, it is necessary to move away from the broad sweep of history and focus on a closer time frame of political events. The broader perspective has allowed the analysis to examine causal links, and reinforcing sequences, that flow from knowledge to technology to organisation. Moreover, the foregoing discussion has elaborated upon the co-evolutionary processes that provide the key mechanisms through which these linkages form part of a feedback system connecting knowledge to society. As previously mentioned, these processes can only be identified over long historical periods, and they usually form what appears to be a static backdrop to historical events. In order to examine the reactive processes set off by globalism, the following Case Studies will necessarily focus on a much narrower set of circumstances in which the causal links, which are part of this larger feedback system, flow in the opposite direction: from organisational form to knowledge generation. However, as has been demonstrated, these linkages form part of a much larger set of feedback processes, and causal linkages.

In order to focus on contemporary political developments, it would be ideal to examine a representative state, though no such entity truly exists. At the same time, Australia provides what is perhaps a very useful subject for intense scrutiny in that it contains a university system that has an unusual set of representative attributes deriving from the nation's colonial 'socialist' history, mixed with a political culture of market liberalism. It has a rich European heritage that has distinct corporatist features, not wholly unlike higher education systems on the Continent, but it is also a typical Anglo-American system and one that has moved dramatically towards the market-based system. This is in large part because of its affinity with the US and their mutual experience as products of the Enlightenment. Australia played a leading role in the expansion of international educational exports, and is often a model that others look towards. In this sense, as a pioneer, Australia offers great relevance.

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Chapter IV - Case Study 1

Australian Knowledge Exports and the Problem of Democratic Regionalism

Introduction

Australian leaders readily invoke the ‘national interest’ in matters touching upon foreign policy. In this respect, the international activities of universities, through student exchange and research, are conventionally viewed as playing a positive cultural and political function, as part of a broad ‘diplomatic investment’ (Knight 1997, 9), where the general aim is to promote ‘mutual respect and understanding’ (Downer 2005, 9) and work towards a ‘stable regional neighbourhood’ (Smith 2008, online). Rarely does this investment seek to build upon any democratic ambition about the future of the Asia Pacific and what may be Australia’s role in shaping this. Nor does it recognise that foreign policy is not the sole preserve of political parties and the government in office (Gyngell & Wesley 2003). In practice, Australia’s national interests represent complex relations and myriad concerns, and in regard to Asia, these are defined broadly in relation to the nation’s long-term social and economic wellbeing. Therefore, they relate to concerns of a more permanent nature than party politics, leadership styles and bureaucratic fashion. Ultimately, they stem from lasting historical experiences and geopolitical realities.

This is the level at which educational and scientific exchange form powerful instruments of national foreign policy, though their impact tends to be felt over long generational cycles rather than the political short-term. The cultural and social networks, behavioural modes and organisational forms that grow from these exchanges are the *formative* and *configurative* mechanisms that in the past have helped to form cities, shape states, inspire nations and configure global empires, as discussed in previous chapters. One of the aims of this Case Study, and those that follow, is to more clearly elucidate the way in which these factors become manifest.

The current level of educational exchange occurring between Australia and Asia is of historic proportions. One quarter of all students passing through Australian university courses, onshore and offshore, are foreign nationals, mostly from Asian Pacific countries, many of which are emerging or struggling democracies undergoing rapid transformation and modernisation. The question this poses is: how well is the social mission of universities being extended through this exchange to the

strengthening of democratic norms and values in these countries and the region generally? How well is Australia conveying its own lessons from grappling with modernity, embodied in its learning traditions? The accepted wisdom and orthodoxy is that educational exchange represents little more than an ongoing exchange in basic commodities. By this view, there are added benefits in fostering common understandings and keeping open lines of communication as these will lead to economic, social and political opportunities. However, these spin-off opportunities do not appear in business plans or on financial statements. They are externalities whose value tends to be discounted, the result being that the core assets from which these opportunities arise are not given priority for reinvestment and renewal. This approach rests on the underlying assumptions of autonomous rationality, elaborated upon previously (Chapter III, Sects E-F), that social and political factors can be readily separated from the technical systems in which they are embedded, and this grows out of the idea that knowledge can be value free. As a result of this, what is poorly accounted for in the process of educational exchange is the transformative capacity of higher learning, that is, its capacity to generate new 'legislative codes' and shared conceptual schemes that shape modes of behaviour and forms of organisation. These provide the spaces in which different cultural and ideological outlooks may be reconciled and given a fresh footing.

Large opportunities for this arise, given the Asia Pacific region is undergoing rapid 'transition', making it the world's most dynamic and diverse region in relation to innovation policy, technological capabilities and scientific outputs (Krishna & Turpin 2007, 4-8). At the same time, it is a massive laboratory for 'demand-driven, trade-oriented mobility of people, programmes and institutions in education' (Marginson & McBurnie 2004, 196). The entire region is a testing ground in which the same formative elements that initially shaped organised urban existence – discussed in relation to Weber's material circumstances and Sjoberg's social, spiritual and intellectual forces (Chapter I, Sect. A) – come crashing together in a confluence of cultural, historical, political and technological change. In the same way that a 'kaleidoscopic pattern' (Chapter I, 43) of organisational forms were tested from the fourteenth century in the universities of medieval Europe, similar experimentation is underway – though on a very much larger and more dramatic scale – in the emerging new academies of the Asia Pacific. These are the machinery rooms, that are often

blithely overlooked, where the organisational templates that will govern life in the ‘Pacific Century’, as it is often referred to, are being cut, forged and inscribed.

At the material level, the globalisation of communications, institutions and markets has resulted in surging patterns of growth within regions, and particularly within East Asia, where tight links between production and supply chains create intensive trade flows and heightened capital and labour mobility, building upon the emerging substrate of a global networked economy (Huijts 2003, 191; Ernst 2005). Running in parallel with these changing economic conditions is the growth of the ‘networked university’: assorted public and private institutions engaged in higher learning whose activities stretch across national borders, as outlined (Chapter III, *Introduction*). These bring the material changes into contact with the social world, and this is inevitable as new modes of knowledge production rely upon closer integration and face-to-face contact between individuals engaged in higher learning and those interested stakeholders within expanding areas of government, industry and the wider community (Chapter III, Sect. A). The way in which these formative elements – the material and the cultural– are brought together and merged will ultimately determine the scope and tenor of regional citizenship and democracy.

It is well recognised, in part due to the empirical evidence amassed by Castells and Hall (1994) that research universities are found at the generative core, and deeply embedded within, new technology-centred urban complexes, or ‘technopoles’. They are to the ‘information economy what coal mines were to the industrial economy’ (Castells and Hall 1994, 231). Because they have mature international research links they provide the central nodes around which clusters in an emerging global network economy can grow. However, the bland notion that human society is being shaped by the ‘knowledge-based economy’ (KBE), where knowledge generation is the key resource and learning the most important process (Rutten, Boekem & Juijpers 2003, 1-15), often leaves out the critical human element of social and political change that may be associated with economic change. The emergence of the KBE may occur around universities and centres of research intensity, as Castells and Hall argue, but what has received less attention is the primary civil purpose of the university, and how this necessarily enters the equation. The growth of education exports means that these aspects of higher learning are now spreading and overlapping with existing

research linkages within the international sphere. As a result of this, as Pruett and Schwellenbach (2004) argue, it is necessary to consider the networked university as a new node of social reproduction. This is the key proposition to be examined here.

Aims and Methods

The aim here is to examine how Australia's student and research exchange networks with Asia play a formative role in emerging organisational forms and contribute to what may be termed *democratic regionalism*. As will be shown, the imperatives of regionalism¹ are prompting the creation of new structural forms, and these will increasingly define the scope of activity for the state and groups within civil society. The proposition here is that the pressures of regionalism, perhaps more so than globalism, are likely to provide the dominant imperatives through which notions of global and international citizenship may find expression. In this way, the processes behind regionalism can be likened to those associated with state formation. The analysis in this Case Study takes place at the macro, or global level, in that Australia is considered as a state actor on the international stage. One of the purposes of this is to give a broad historical and geo-political outline before moving on to subsequent Case Studies that use theories of state capacity at the national administrative level (meso), and at the local institutional level (micro).

Strategic analysis is used here as the methodological approach, whereby Australia's science and higher education policies are examined in terms of the national interest, defined as long-term economic and social wellbeing, and by the way in which these policies cohere with current thinking and international trends. It is argued that the lack of a more coherent approach by Australia, in developing strategic educational and research linkages, may have wide economic, political and social ramifications. The explanatory variables behind these impacts have been broadly codified in previous chapters in terms of the 'formative and configurative' functions of higher learning, and in relation to notions of 'equilibrium and disequilibrium'. This Case Study and those following, provide the rich context in which these variables, and the causal mechanisms they represent, can be given more precise definition.

¹ Unless specified, 'regional' is used throughout in the international rather than the provincial sense.

Antecedence: Asian Regionalism and Australian Identity

The role of educational and scientific exchange cannot be separated from the flow of historical events and the wide spectrum of geographic and political interactions occurring within the region. These provide the background conditions in which any linkages developed through higher learning gain significance. From the broadest perspective, regionalism has always presented a strategic problem for Australia, in large part because of its European heritage. Nevertheless, it is also a cliché that the orientation of Australia's Western cultural and political identity creates insurmountable barriers to regional integration. This ignores the shift occurring, albeit at almost geological rates, that has brought Australia and Asia closer together, due to economic regionalism and the pressures of globalisation. That is, it overlooks the powerful converging effects of modernisation and economic prosperity, accompanied by the spread of shared social and cultural norms, often fuelled by access to instant global communications such as the Internet and satellite television (Thussu 2000, 6). Globalism is shifting the parameters of spatial relations, and the pressures of regionalism mean that a new reordering and sorting out is underway. Within this process, Australia will have the option of asserting a distinctive national identity and sense of purpose, or its role is likely to be submerged by sectoral interests and subject to the vagaries of 'event-driven' regional politics (Gyngell & Wesley 2003, 229). The difference between the two positions may, at least in part, depend upon the extent to which Australia is able to view its educational and scientific exchanges strategically.

The rise in cultural nationalism in Australia, most evident from the early 1990s (Case Study 2, Sect D; Case Study 3, 203), and the hardening of ideas due to the attack on the World Trade towers in 2001, no doubt gave credence to the fallacy that the world was facing a 'clash of civilisations', with the dividing lines drawn between the 'West and the Rest' (Huntington 1993, 27). For Australia, when viewed as a small European outpost in a vast Asian region, acceptance of this idea could have worrying consequences. However, this proposition disregards the more complex picture that emerges when examining the way in which globalism is transforming relations between states, and even transforming the concept of the state itself

(discussed in Chapter VII, Sects C-D). Furthermore, it overlooks the fact that fundamental notions of freedom, individualism and the desire for justice, and the rule of law, grow out of aspirations that are basic to human nature. This is supported by the evidence that strong undercurrents of democracy exist in Asian countries, evident in the bitter struggles for human rights (Chee 1999, ii-iv). It also overlooks the fact that Japan was one of the earliest sites in Asia for the emergence of constitutional government, and by different pathways, the Philippines and India also adopted democracy. In South Korea and Taiwan, democratic forms of government evolved spontaneously out of autocratic regimes, in spite of strong Confucian traditions, and perhaps even due to them (Wood 2004, 52-3). These historical realities point to an urgent need for reassessment of how democracies form, taking into account the possibility of multiple pathways beyond the traditional European route. Empirical support for this can be found in the way modernisation, prosperity and the demand for civil rights have together swept across Asia (Dalrymple 2003, 93). As these events continue to unfold, it has become increasingly apparent that Australia not only needs to have closer ties, and to be better informed about Asia, but may need to possess a deep visceral sensitivity to the cultural, social and political conditions that could limit its engagement with the region, and which also define the scope of opportunity.

From aid to trade

Australia has been involved in international educational exchange from 1904 when the first students began arriving from overseas, mainly from Asia. This expanded in the post-war era after the multinational Colombo Plan for Cooperative Development in South and South-East Asia was launched in 1951 (ADFAT 2004, xviii). This provided direct sponsorship for overseas students so that Australian academic staff became 'increasingly involved in educational development in the region (Black, Davis & Olson 1996, 34). Over the next fifteen years, the number of overseas students at Australian universities multiplied from 1000 to about 5000, to comprise almost ten percent of enrolments, and it remained at this level for the next twenty years.

During this early period, exchange was managed in a three-way negotiation between the portfolios concerned with foreign affairs, immigration and education. Till the end of the 1980s, policy was also negotiated between the States and the Commonwealth. The turnaround in philosophy and approach came after the election,

in 1983, of the Labor Government under Bob Hawke, and the delivery soon after of two key reports: the Committee to Review the Australian Overseas Aid Program of 1984, known as the Jackson report, and, *Mutual Advantage* (Eldridge 1985), the Report of the Committee of Review of Private Overseas Student Policy, dubbed the Goldring Report (Goldring 1984). The Goldring committee included departmental officers from education, immigration and foreign affairs, along with academics. The committee wanted an 'evolution in policy' that continued to see international student exchange as serving Australia's broad interests by improving communication and understanding. It rejected any market-based system aimed at full-recovery of costs arguing that: 'Education, while in some senses a commodity which can be bought and sold, is far more than that' (Goldring 1984, 5). It called for priority to be given to overseas student services and recommended that the number of overseas students at any one institution be limited to five to ten percent, and within any one course to no more than 25 percent.

But Jackson prevailed, setting the course of an economic rationalist approach that embraced an orthodox growth model of development, an outcome that might have been expected, given that three of the six committee members were from the ascendant 'neoclassical' school of economists (Pusey 1991, 11) in Australian universities. The report questioned the 'cultural and developmental' impacts of the aid approach to student exchange, pointing to the fact that the majority of post-secondary students, about 80 percent, were coming from Malaysia, Singapore, and Hong Kong, countries that the World Bank described as 'upper middle income' (Eldridge 1985, 23-5). Poorer countries, such as India and Indonesia, had long before adopted national policies based on undergraduate education at home, with overseas training being sought predominantly in post-graduate, professional and vocational courses. The view within the Jackson report would come to represent a new thrust in Australian-ASEAN relations, whereby a shift in attitudes towards educational and cultural exchange was to be part of an expansion of business activity and market push into Asia.

On coming to power, Labor faced the reality that half of all exports were going to Asia, with East Asia becoming by far the nation's largest export market (Dalrymple 2003, 79). This brought a turnaround in Australian foreign policy, moving the agenda of public debate towards Australia's role in the region. In this context, Labor

commissioned two major policy reports: a *National Strategy for the Study of Asia in Australia*, by Stephen FitzGerald (ASCA 1988), and *The Northeast Asian Ascendancy*, by Ross Garnaut (1989), which together set down the framework for Australia's closer economic and cultural integration with Asia. FitzGerald, in particular, was a strong advocate for Australians to become more familiar with Asia, to learn Asian languages, and to rise above the constraints of their own cultural and political predispositions (FitzGerald, Boomer & Lo Bianco 1988). The late 1980s was a turning point when it was imagined that Australia could be connected with Asia: while not necessarily Asian, it could be part of the social, cultural, political and economic mixture of life in Asia rather than simply a European outpost in Asia. However, as FitzGerald reflects, Australia was for Asia, but it also deflected to an Asia-Pacific that embraced North America. 'We came to Asia but we did not make the hard intellectual engagement' (1997, 55-56). Labor spearheaded an institutional push into the region in 1989, with the creation of the Asia Pacific Economic Cooperation (APEC), aimed at constructing an 'Asian Pacific community' (Dalrymple 2003, 93-4). This ambition, carried by Paul Keating as Prime Minister from 1991, suggested that Australia alone could forge regional integration. This notion, if not misconceived, over inflated Australia's true commitment. It also proved out of touch with Asian perceptions of Australia's position – or lack of a position – in the Asian world, and how that Asian world was to be conceived (FitzGerald 1997, 52). Even on logistics, a single community stretching across the Pacific from China to Chile, and from Canada to Indonesia, would be unwieldy, and was perhaps 'too big and too diverse' (Dalrymple 2003, 93) to be considered a community. Nonetheless, it was within this expansive context that Australian higher education underwent massive reform, and universities were urged to go out and compete for funds.

With the earlier abolition of limits on the number of fee-based international enrolments, Australian universities were able to offer their educational services commercially, and so began to compete aggressively, often undercutting each other to lure students. This prompted the Commonwealth to step in and subsidise a coordinated effort, through the creation of education centres in the Australian Embassies in East and Southeast Asia (Marginson & McBurnie 2004, 168-9). Similar efforts to better coordinate closer scientific linkages, expected to flow from greater educational exchange, were planned as part of the APEC Human Resource

Development Working Group, and the APEC Industrial Science and Technology Working Group, formed around 1990. But little activity emerged from these. A decade passed before a new APEC S&T Policy Forum was created with the objective of pushing matters along, and this would bring together ‘high level participants’ from business and research and science policy with the aim of achieving ‘strategic, mutually beneficial outcomes through APEC cooperation’ (Ford & Harman 2001, 67). This included a region-wide database for R&D internationalisation and a set of collaborative research projects with a region-wide focus. By this time, however, the opportunities for institutional building were quickly disappearing.

While the institutional scaffolding was erected to develop a coherent regional approach in education and research, this was to little avail as APEC itself suffered ‘institutional failure’ becoming little more than an ‘informal network and get together’ (Kunkel 2002, 246-7). Various factors lay behind this lack of success, including antipathy felt towards Australia among some Asian nations and the over ambitious plans for APEC, as conceived by Hawke and Keating. However, those same factors that enabled Australia to inject a new vision of regionalism, which grew out of the transitional changes occurring with the ending of the Cold War and the cyclic shift from ‘rigidity’ to ‘fluidity’ (Gyngell & Wesley 2003, 226-7), also allowed for new alignments and relations in regional affairs. As APEC failed to gain momentum, other regional institutions such as ASEAN+3 – of which Australia was not a member – moved to the centre of the region’s politics. Significantly, efforts to form an East Asian regional grouping were initiated by Asian nations who belatedly asked Australia to join, and then only after Australia had carried out an ‘intense diplomatic campaign’ (Kelly 2005, 13).

Australia’s dashed hopes of seeing a new regional community form, by the virtue of its own efforts, may not be entirely due to its own diplomatic shortcomings. The more likely cause is a combination of events and entrenched region-wide problems. One underlying difficulty is that the idea of Asian regionalism generally lacks broad acceptance, and this inhibits systematic thinking on the topic. As He points out, inter-regional cultural and political differences are often as sharp as those between East and West. This undermines any move towards Pan-Asianism that may ‘wrongly assume Asian homogeneity’ (2004, 111-9). The complicated relations

between some countries often serve to re-ignite colonial resentments, which can implicate Australia, even though the differences may stem from historical Asian rivalries. This is particularly the case between China and Japan, whose mutual discomfort with the other makes it easier for them to deal directly with Western powers than with each other.

Other factors greatly complicate the progress of Asian regionalism. China and Taiwan, and the two Koreas, remain burdened by divided nationhood. China, Indonesia, the Philippines and Burma face succession problems and multi-ethnic conflicts. Various hostilities simmer, like those between China and Japan and between other neighbouring countries, as a result of which state security remains the highest priority for most nations (He 2004, 118). Compared to their counterparts in Europe, the nations of Asia are perhaps less self-confident, making it difficult for them to give up sovereignty for the common cause of integration. For key players such as China, the imperatives for regionalism are new, but they coincide with a growing recognition of the need for 'cooperative security' (Deng & Moore 2004). How much this may represent a break from the past, and a desire to resume its 'Great Power' status, may prove critical. As a large country and a potential hegemon, China's interest in regionalism may be limited. Chinese intellectuals rarely talk in terms of visions of regionalism, but rather 'Great China'. On the other hand, there are many intellectual writings by Japanese scholars of their vision of East Asian regionalism (He 2004, 116).

Chinese perceptions may be shifting to take into account how economic globalisation changes the parameters of great-power politics away from the traditional zero sum game and towards increased cooperation between countries and regions. It has even been suggested that this is becoming the new 'hallmark of China's new foreign policy' (Deng & Moore 2004, 123). The greatest impetus for this is that transnational threats to Chinese power are no longer seen to be dominated by the traditional military threats but rather non-traditional threats: terrorism, unregulated capital flows, weapons proliferation, epidemics and cross-border criminal activities. The devastation of the Asian financial crisis, fallout from terrorist attacks, and the North Korean nuclear standoff underscored the entwined nature of traditional and non-traditional security threats to Chinese leaders. On top of this came the outbreak of

Severe Acute Respiratory Syndrome (SARS), which originated in 2002, but properly struck in 2003, causing more than 800 deaths and infecting many more across the entire region. China's initial denial, and the scourge of the disease itself, had a serious impact on both China's economy and its international reputation. The response to the SARS crisis both challenged and strengthened Chinese cooperative relationships with international society, prompting a rethink of national security with more attention to non-traditional threats (Deng & Moore, 2004, 127-8). The shift is unlikely to mean a retreat by China from long held positions and territorial claims, such as over Taiwan, though it may constrain direct action, reinforcing the idea of non-intervention as a basis for regional order. Then again, non-intervention – as a principle behind regionalism – may prove limiting in that it reaffirms sovereignty principles and reduces the aspirations for East Asian regionalism to little more than 'intergovernmental collaboration' (He 2004, 118). This may prompt the question of whether the word 'regionalism' should necessarily even apply to the Asia Pacific. As a model, compared to the European Union (EU) or the North American Free Trade Agreement (NAFTA) bloc, the Asia Pacific is perhaps a poor fit. At the same time, however, similar global and economic, security and technological imperatives are driving closer cooperation within the Asia Pacific region. Given the wide disparities in income levels, massive potential for growth and change, and the associated social and environmental problems, these pressures may prove even greater.

Australia's role in Asia

Into this complex and changing picture of Asian regionalism, Australia has tended to venture boldly and without full regard to Asian sensitivities, thereby making itself an easy target. Australia can be readily characterised as having failed to cast off its colonial ties, and not having abandoned altogether its desire for a White Australia. Moreover, Australia is easily played by Asia, and this typically occurs by the inclusion of Australia as 'part of Asia' when Asian leaders see this as optimising their interests, when forming coalitions of member states, expanding the region's collective influence, or when engaging in economic or defence activities involving Australia. But Asian leaders can just as quickly point to Australia's flaws when it suits their purpose.

In spite of all this, there are also perceptions within Asia that due to its location and 'evolving' cultural mix, Australia is in good position to provide a critical bridging role (Broinowski 2003, 222). The accounts of experiences given by overseas students from the days of the Colombo Plan show that many believed that Australians thought of Asians in demeaning stereotypes. Australians were seen to be condescending and ignorant about Asia, and lacking an Asian cultural awareness. However, Broinowski also reports that these views were also mixed with impressions of Australians being friendly and egalitarian. More so than others, the Chinese typified Asian perceptions of Australia as mixed and complicated, with Australia often being portrayed as a cultural desert, and a lapdog of the US and Britain. At the same time, it was also idealised as a place of 'liberty and freedom, particularly among reformers' (Broinowski 2003, 61-2). When an Overseas Student Charge began to displace the Colombo Plan, during the 1980s, foreign students might have had even less to be grateful for. Notions of Australian benevolence began to change as visiting students regularly reported problems with the cost of living and accommodation, and the frequent changes in visa fees. The new policy of education 'for profit' was generally seen as a way of subsidising local students (Broinowski 2003, 128). By the early 1990s, the mass recruitment of Asian students began to result in the formation of social ghettos as the visitors naturally drew together, living, studying and socialising in tight groups. More recent research on overseas student experiences, discussed later, indicates that conditions have gradually deteriorated, and quite significantly.

The change around in Australian policy, towards the for-profit regime, followed on directly from the Jackson report, discussed earlier, and coincided with a shift towards the federal government taking a larger role in higher education funding and policy. For the decade up to 1987, the Commonwealth Tertiary Education Commission (CTEC) provided a 'buffer' between the various levels of government and universities, but this was abolished as part of the so-called Dawkins reforms, set in train by Jackson, and this effectively reduced policy input from the States and other institutions, the implications of which led to a further centralisation of policy (examined in Case Study 2). However, this gave the Commonwealth scope to undertake sweeping reforms unhindered by the politics of federalism. This meant there was greater flexibility to accommodate efforts to more closely align higher education policy with wider economic reform. Moreover, higher education policy was

seen to be central to the process of developing closer integration with the region. Later, under the Coalition, this same flexibility was used to tie education policy to other major changes, such as in industrial relations.

Context: Regionalism and the Networked University

The value of the idea that higher learning provides a medium through which new modes of behaviour and organisation develop can be judged against events being played out with the emergence of the networked university in Asia. Surging economic growth and rapid technological advance is being accompanied by large investments in higher learning, and many parts of the region have become incubators for new types of partnership, collaborative regimes and organisational structures. While in general terms, it has been observed that universities provide the strategic links between ‘world-wide networks and local environments’ (Maskell & Törnqvist 2003, 129), this grows out of the fact that information-based production and supply chain networks tend to cluster around centres of research excellence, mostly within universities, or where there is access to precision engineering (Ernst 2005). Moreover, these clusters are unfolding at geometric rates across Asia, especially as labour intensive manufacturing economies move into high technology production and greater specialisation. Economies such as Malaysia and Korea, and more recently China, have typically followed in tight formation behind Japan’s lead along this pathway. In the process, they have also woven dense production networks, and these have been found to be a major factor in closer regional integration (Damuri, Atje & Gudah 2006).

More elaborate production and greater specialisation have invariably meant greater investment in research and higher education, and this has created a distinctive mix of Asian higher education systems. Some of the common threads running through these are: high student mobility with many students travelling abroad to gain qualifications, rapid adoption of information technology and mixed modes of course delivery. Seven of the ten largest distance education institutions in the world are located across greater Asia – Turkey, China, Indonesia, India, Thailand, South Korea,

and Iran, and each of these have enrolments in excess of 100,000 and all are public institutions (Altbach 2004, 26-7). Notably, the push by mid-ranking Southeast Asian nations, Singapore and Malaysia, to become 'regional education hubs' (Mazzarol, Soutar & Seng 2003, 92) relies most heavily on the use of new communication technology rather than scholarly reputation or outstanding research capacity. It is the use of new technology, married to new forms of organisation, that provides the back linkage to global networks, and forward linkage to local environments on which these kinds of proposals stand. All of the above factors converge to make the growth of the networked university (Chapter III, 109), as the dominant model, very concrete in the Asian context, perhaps more so than elsewhere.

Put together, higher education in Asia is highly experimental and institutionally heterogeneous. All manner of alliances and coalitions are being tested, including various 'twinning arrangements' through which students study for a foreign degree while attending a local institution. Alternatively, Western institutions are also creating branch campuses, often using combinations of face-to-face and online course delivery. From a strategic view, the branch campus provides much greater opportunity for host nations to develop firmer links, both in education and research; however, this is also a high-risk option as it entails much planning and large investments. Efforts by Australian universities to create overseas branches in Asia have had mixed results, including at least one spectacular failure². Across the spectrum of operations, the use of online delivery by host institutions is often favoured as this provides a much lower risk option compared to the higher risk branch campus (Mazzarol, Soutar & Seng 2003, 90).

As a function of the problems that confront the region, outlined above, there are two main constraints upon Western nations penetrating the higher education markets there, and these relate to language and political stability. Malaysia, Singapore, Thailand, China and possibly also Vietnam are all either participating or planning to take part in branch campus arrangements, though some are moving along this pathway faster than others, and this most often depends upon the extent to which

² The University of New South Wales was forced to make an embarrassing withdrawal from Singapore in mid 2007 after four years planning a branch campus and considerable investment (Armitage 2007, 29)

English is spoken. This has been a factor in slowing the pace in China, Thailand and Taiwan. In Indonesia, progress is slowed by the great differences in English standards and political instability (Mazzarol, Soutar & Sang 2003, 92). Malaysian and Singaporean knowledge sector policies are more developed, and increasingly seen in terms of nation building, increasing innovative capacity and generating future knowledge-based exports, including in higher education. From 1995, Malaysia's private universities were encouraged, and the distinctions between local and foreign institutions became less pronounced; however, foreign providers must negotiate a complicated task of incorporating locally in order to protect cultural values. The *Malaysian Education Act of 1996* stated that education played a vital role in achieving the country's vision of attaining the status of a 'fully-developed nation in terms of economic development, social justice, and spiritual, moral and ethical strength' (McBurnie & Ziguras 2001, 94-5). The regulations mean that all Malaysian students must meet certain standards in speaking Bahasa, and must also complete Malaysian and Islamic studies.

Singapore is much more explicitly Western in its higher education goals, and since 1999, the national scholastic assessment tests have promoted qualities such as 'curiosity, creativity, enterprise and teamwork', though the extent to which this will lead to a flowering of creativity and innovation, given Singapore's high levels of social control, may be questionable (Tan 2003, 37). Nonetheless, Singapore is well advanced with its twinning arrangements with around twelve world-class universities, mostly US-based. South Korea is also moving in this direction, having recognised that its existing system was far too rigid, and there was a need for increasing innovation and creativity. Reforms are aimed at deregulation and diversity, with a focus on 'improving the moral character of students' as well as producing original science and technology (Mok & Welch 2003, 61-2).

In some respects, China is the archetypal Asian higher education system, in that it contains great extremes and diversity, and it displays many of the common trends and critical problems. It was slow to embrace a more Western approach to higher learning, but has since developed a stronger science and technology base over recent decades, having put in place a series of strategic plans for increasing research and development. It has had massive economic growth, the economy is becoming

more diverse and dynamic, and there is a shift towards higher levels of specialisation, evident in increasing exports of high-technology products. However, increased investments in research have not yielded strong results. This is in part because of an overemphasis on experimental developmental, or applied research, and because its high-technology industries, normally the most research intensive, are mostly foreign owned (OECD 2007a, 15-7). China has launched plans to achieve an ‘innovation oriented society’ by 2020, a key aim of which is to increase ‘home grown innovation’. To be successful, this may entail fundamental changes in official attitudes towards the conduct of science and education. There are also plans to build 100 world-class universities over the next two decades, and China has already carried out major reforms and decentralised aspects of higher education. Funding increasingly comes from the local level, through mass organisations, collectives, businesses and private entrepreneurs. Universities routinely participate in commercial ventures, with industry partners (Ngok & Kwon 2003, 171-4). There has also been the gradual introduction of student fees and a loans system (Jolley 1997, 193).

But the expansion of China’s higher education may need to be seen in the broader context of China’s industrialisation, which is lopsided. China stands out among a large group of industrialising countries as having a marked increase in inequality (Ocampo 2004, 12-4). Since opening its doors to the world in 1978, China has placed greater emphasis on science and technology, along with an expansion and restructuring of higher education. While there is institutional autonomy, there are also strict academic controls. Chinese leaders recognise that Maoist centralised planning stifled education, and this prompted the freeing up of administration, but much of the curriculum is still dominated by Marxist dogma and Communist Party history. Authorities still reserve the right to inspect textbooks. This mostly constrains advance and innovation in the humanities and social sciences, though it continues to instill traditional modes of Chinese learning more generally. Much of the industrial research operates on a more open competitive basis, and key national laboratories are selected strictly on the basis of performance (Ngok & Kwon 2003, 164-71). This has meant the return to an elitist system, yet one that many Western commentators would argue lacks capacity for innovation.

The imbalances in its machinery of higher learning are reflected in the uneven nature of its economic development, with economic reforms having mostly benefited the cities and coastal areas in the east while deep rural poverty can be found in the western provinces. Reminiscent of the Tsarist approach (Chapter II, 89), there is an under-investment in schools, leading to high levels of illiteracy, with 60 percent of rural poor having less than six years education. In 1997, there were 145 million adult illiterates in China, 70 percent of whom were female. For the poor, access to higher education is made difficult by soaring costs, and the number of students from poor families account for only 10 percent of the total university population, although it can be argued that this in fact represents a ‘significant improvement’ (Min 2004, 79) on previous levels. This was only made possible by the great increase in wealth generation, which improved the gross result. Working against this, the new independence given to local authorities, and the competitive environment, makes worse any disparities in access (Ngok & Kwon 2003, 180-1). In response, China has put in place various scholarships and stipends, and has even ordered institutions to waive fees for stipend recipients (Min 2004, 79). In some respects, therefore, China has begun to grapple with the same education and research policy conundrums that are a feature of Western systems, including Australia’s, and which have led to policy innovation. Also, these dilemmas must be seen in the context of China facing the prospect of a series of social and ecological challenges that could limit its economic performance unless it is able to modify its growth model (OECD 2007, 59-60). It has argued that China needs greater enterprise innovation and ‘creativity’ in research and a less ‘passive’ approach to learning (OECD 2007, 15-7). This blanket prescription appears to be based upon a stereotyped view (Archer and Francis 2005, 166) that does not necessarily apply across China. A much more nuanced understanding of the ‘subtle and complex’ nature of Chinese learning styles is emerging from research (Wang and Moore 2007, 32). However, what underlies debate on these questions is whether scholarly and scientific creativity is inherently constrained in the absence of intellectual freedom, and to what extent China must embrace social and political innovation in order to create the necessary conditions for enhancing academic productivity?

Changes in the direction of China’s science and higher education will need to draw upon – and will also impact upon – a large and growing network of scholarly

exchange across the region. In the past twenty years, about 450,000 Chinese students and scholars have taken part in international exchange, and the rate is accelerating as computer based education and research networks are being put in place (Min 2004, 73). China has also become the largest importer of Australian higher education, and throughout the 1990s, the number of university agreements, for student exchange or research, grew exponentially. However, the extent to which Australia is using these inroads to China to build strategic links is questionable, as explained below.

Data and Analysis

A useful framework for analysing the impact of Australia's HEE is the extent to which they can be seen to represent the 'globalisation' or 'internationalisation' of Australia's higher education. Internationalisation is indicated by the presence of mutuality and reciprocal cultural relations. Globalisation, on the other hand, is marked by a predominance of academic capitalism: the commercialisation of programs and activities, and the commodification and marketisation of education services (Welch 2002, 439). By the time the Australian HEE market was well established by the mid 1990s, the OECD reported that there were 1000 international initiatives, including interdisciplinary approaches with an area or regional base, explicitly comparative curricula, subjects with an international focus, and curricula broadened by an international component in institutions across Australia. However, most examples came from areas of strong demand in business, economics and commerce rather than the arts, the humanities and social sciences. Moreover, Australian international programs were criticised for being motivated more by financial concerns than by a commitment to internationalising either institutional profiles or the curriculum (Welch 2002, 453-5). However, this is a general phenomenon, affecting not only Australia, and may result from market reforms which often prompt institutions to launch aggressive marketing while not paying close enough attention to student needs. This might be considered a symptom of the move towards a new buyer beware environment in which students are being forced to adapt to the idea of being 'consumers' (Baldwin & James 2000; Also discussed in Chapter VII, Sect. F). In this regard, this might be considered at least in part a transitional, or adjustment, problem.

Deeper structural changes are evident in the way educational profiles are being altered due to high demand in certain areas of the international market. This has led to heavy concentrations in vocational areas, particularly in management and commerce, and in information technology, while the natural sciences, along with the humanities and social sciences (HSS), are under represented. Only eight percent of international students enrol in the HSS, compared to around 48 percent in commerce and management (see Table 1). This raises the concern of long-term imbalances in capacity building as it affects the ability of disciplines to compete for funds against rival disciplines. These trends contribute to decisions by some universities to cut back and restructure their humanities courses. In at least one instance, it has led to moves to abolish the Bachelor of Arts and Bachelor of Social Science degrees altogether (Lane 2007, 23). The converse is likely to occur in client countries as students seek out particular areas of tuition, creating gaps in capacity.

Table 1: Comparison of selected award course completions by citizenship (1996-2005)

<i>Broad Field of Education</i>	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<i>Domestic Students</i>										
Natural & Physical Sciences	9,175	9,855	10,039	10,268	10,403	12,930	12,558	12,746	13,359	13,771
Management & Commerce	23,380	26,000	27,804	29,374	30,182	33,036	34,291	35,525	36,416	36,544
Society & Culture ¹	27,221	29,496	30,420	31,253	31,527	33,705	34,432	36,431	38,810	38,844
<i>Overseas Students</i>										
Natural & Physical Sciences	1,219	1,366	1,601	1,791	2,196	1,202	1,412	1,690	2,320	2,768
Management & Commerce	7,698	9,945	12,121	13,639	17,277	20,041	23,229	27,565	30,629	33,590
Society & Culture ¹	2,093	2,388	2,828	3,189	4,008	2,903	3,499	4,693	5,333	5,673

1. Humanities and Social Sciences is incorporated into Society and Culture.

See Appendix 1 for data covering all disciplines, explanatory notes and totals.

Source : DEST 2007a

The pattern of enrolments of overseas students indicates that demand arises from a comparatively small elite with an ability to pay more for higher education than it would pay at home. However, by purchasing courses overseas, this student population

reduces the ability for the client countries to build capacity in particular areas, such as business studies, and, as such, represents a 'flight of capital' (Turpin, Iredale & Crinnion 2002, 338-40). Problems related to capacity building and disciplinary imbalances can be made worse by the fact that as more foreign students are trained in Australia, more also tend to stay and find work, contributing to the net 'brain drain' from client countries (Marginson & McBurnie 2004, 148), the ultimate impact being the great potential to make worse the wealth divide between nations (Turpin 2004, 9) These types of unintended consequences have been routinely encountered in the past as a flow-on from colonial experience and have lasting consequences. The massive expansion and unprecedented scale of the current exchanges would suggest that significant impacts on client countries are therefore most likely, either in terms of reinforcing the position of political and technical elites, or by the creation of long-term structural dependencies.

A broad outline of the way in which Australia's collaborative research efforts with countries in Asia can be matched against the dramatic development of education markets is provided by bibliographic data and citation rates on jointly authored international scientific papers, combined with data on university-to-university agreements. The bibliometric data has accumulated since the early 1990s, and this provides some indication of where collaborative research was most productive, in terms of joint publication. Burke & Butler (1995) noted there were clear signs of an increasing share of world science emanating from Asia; however, many regional countries were in the process of establishing collaborative links with countries other than Australia. Moreover, the data indicated that there was an absence of Australian basic science, as distinct from research and development, in the collaborative publications with Singapore, Taiwan, China, Japan, Korea and Thailand: 'We found no clear traces of any program of activity intended to place Australian basic research in the path of the major collaborations which Asian nations now routinely seek to have with the US and Europe many of which occur in fields in which Australia is very active' (Bourke & Butler 1995, 66). Follow-up work in this area suggests that similar trends in research linkage have continued (Butler 2004) in spite of growing educational exports to the region.

Since the bibliometric data has come available, the (former) Australian Vice Chancellors' Committee (AVCC) has also begun to systematically collect statistics on international agreements formed between Australian and overseas universities, which it publishes as raw data (UA 2008, online). The data provides a measure of active and expected university-to-university exchange and collaboration.

Table 2: Formal university-to-university links (Australia-China, Australia-United.States).

		<i>Student exchange</i>	<i>Study abroad</i>	<i>Staff exchange</i>	<i>Collaborative</i>
China	<i>Active</i>	315	115	235	235
	<i>Not Active</i>	163	363	243	243
United States	<i>Active</i>	483	193	539	577
	<i>Not active</i>	251	601	195	157

Student exchange indicates reciprocal movement of students, and study abroad is the one-way movement. Active/Non active indicates whether the agreement represents some activity. Source: (UA 2008, online).

The trend in agreements follows a broadly similar pattern since the early 1990s, as reflected in 2003-2007. By 2007, the data shows that out of a total of 5,168 agreements, Australian universities had signed the largest single majority of agreements (1,115) with North-Western Europe. This also remained the fast growing area between 2003 and 2007 with the increase in the numbers of agreements with individual countries exceeding 30 percent, reflecting Australia's deep historical links with Europe. The second largest area in the number of total agreements was the Americas, and these also had high growth rates, especially Canada (32 percent). The single largest number of agreements with any one country exist between the US (760) followed by China (585), with China appearing to be growing at a faster rate than the US; however, this is deceptive. For instance, between 2003 and 2007, the total number of student exchanges grew while the relative proportion of collaborative activity actually declined. The way in which the statistics are aggregated (UA 2008, online) would indicate that China had a growth rate (13.8 percent) exceeding that of the US (9.4 percent). However, when these figures are broken down into their active and non-active components (Table 2), it can be seen that the growth in China is greatly inflated by a comparatively larger proportion of inactive collaborative agreements compared to the US. In other words, there is still much potential to be realised in relation to China, compared to levels of student exchange. The opposite

has been the case in the US where high levels of expectation about collaborative work tend to be fulfilled (Table 2).

The links with China grew rapidly from 1990 when some of the earliest collaborative ventures between China and Australia were being put in place. After China passed the Education Law of the People's Republic of China, setting down the principles and practices of formal education exchange and scientific cooperation (Jolley 1997, 194), the number of new agreements between Australia and China expanded five fold over the following year. Growth continued as the education market expanded but at a much less frenetic pace. Moreover, the links with North American and European institutions sustained strong growth in the absence of massive growth in education exports. The agreements with China were often in anticipation of closer collaboration that was not realised. The growth in China between 2003 and 2007 also offset a decline in collaboration with other parts of Asia, notably Indonesia (-25 percent) and Thailand (-12 percent). This general picture correlates with the bibliometric data that show that Australia's collaborative links are tied to its former historical and cultural associations rather than consolidating upon emerging prospects.

The data on citation rates shows that there has been a sharp increase in international collaboration between Australia and countries around the world, with collaboration rates more than doubling, and in some cases tripling, across all the sciences since the early 1980s. This is part of the post-war 'internationalisation of the academic profession' (Welch 2005, 71-77). However, the pattern of increasing collaboration is far from uniform. Linkages between Australia and the European Union, and Australia and the US continue to dominate. Depending on the discipline, these make up between about 75-85 percent of all scientific collaborative work leading to publication. This pattern changed little in the decade from the mid 1990s, though the links with China increased in some areas, notably engineering and information technology (Butler 2004). There was a slight increase in the number of jointly authored papers between Australian and Chinese scientists in the decade leading up to 2001, and this includes work in chemistry, earth sciences, physics and maths. This brought the overall share of collaborative links with China to about ten percent of all international joint publications. However, during that period, China has

also moved ahead to become one of the top ten countries in some fields, such as mathematics, moving into fourth ranking (Butler 2004).

In summary, while Australia's links with China grew, the increase was marginal compared to the spectacular growth in Chinese science. There was also a lack of symmetry between the gross number of Chinese students coming to Australia and the number of cooperative agreements when compared to the level of 'follow through', measured in terms of more permanent research linkage. This lack of symmetry adds to the more general concern about imbalances created in the disciplinary mix, and this is compounded by the lack of growth in postgraduate research in ways that correspond to the enormous growth in undergraduate study (Table 3). While the number of undergraduate awards for students from overseas more than tripled, the number of Doctorates by research was significantly less, though the number of Masters by research remained constant. At the same time, there was massive growth in coursework postgraduate degrees, which are less likely to generate ongoing science linkage than research degrees.

Table 3: Selected higher degrees by overseas students (1996 -2005).

Level of Course	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Doctorate by Research	579	639	593	647	610	643	662	788	955	994
Master's by Research	273	290	282	271	267	268	261	262	295	316
Master's by Coursework	3,548	5,048	6,313	7,709	10,889	13,845	17,028	22,608	24,313	28,417
Bachelor's Honours	383	351	402	632	439	592	741	736	877	850
Bachelor's Pass	10,126	12,341	14,914	16,308	18,868	21,045	24,141	27,484	31,548	32,460

See Appendix 2 for details of all degrees, comparisons with domestic students and totals. Source DEST (2007a).

This distorted picture of research linkage needs to be placed in the broader context of the massive expansion of education exports to the region, and what might be considered to be a strategic policy of neglect in regard to ensuring that opportunities for 'follow through' occur from the undergraduate level. From the start of the 'for profit' system, institutions took little responsibility for the welfare of foreign students, while the problems of ghettoisation, referred to earlier, grew worse. The climbing cost of courses forced some overseas students to attempt completing

their studies in the shortest possible time, and along with other factors, this prevented mixing with Australians. A review of the literature by Australian Education International (AEI) summarised by Harman (2004) reveals a picture of two parallel streams of students proceeding through university: the Australian and the international. Both are within close proximity, yet in the majority of cases, they have at best superficial contact and interaction. This adds to earlier findings that reveal some dissatisfaction and disappointment: the expectations of international students who had hoped to meet and form close friendships with Australian students, visit Australian homes and experience local culture first hand were not being realised (Harman 2004, 9). A group at Monash University reported in 2005 results from a study into social and economic security of international students, that 50 percent had experienced discrimination or bad treatment while in Australia, with bad treatment relating to discrimination and racism. Sixty five percent reported loneliness and isolation, while nine percent reported negatively to the question of whether they felt safe and secure while in Australia. Around a third had difficulty with language in relation to their academic work, 35 percent experienced financial difficulties while 77 percent wanted better information provided to prospective students, and 75 percent said there needed to be ‘better backup systems’ (Deumert et al 2005, 3).

Table 4: International Student Experiences 1984-2005

<i>Problem areas</i>	Language competence	Financial difficulty	Discrimination	Loneliness	Feel unsafe
Survey 1984	25	26	14	26	9
Survey 2005	30	35	50	65	–

Figures are expressed as percentages. These surveys used different survey techniques. See Appendix 3 for explanatory details.

Sources Goldring (1984) and (Deumert et al 2005).

Research commissioned for the Goldring (1984, 31) report focussed on the very same issues and provides some basis for longitudinal comparisons (Table 4). This would indicate the deterioration, during the intervening period, in the overall experience of international students. In turn, this could reflect a change in the way Australians receive international students due to a decline in the general awareness and sensitivity to Asia. This is consistent with research into Australia's capacity to understand its nearest neighbours. The Asian Studies Association of Australia reported in 2002 the stagnation in Asian studies and the study of Asian languages.

Isolated reports in the years that followed pointed to a continuing trend. No more than five per cent of Australian undergraduates encountered the systematic study of any aspect of Asia. Even fewer, less than three per cent, studied an Asian language, which was far from the target of 10 percent for 2000 (Fitzgerald et al 2002, 42). The main cause was seen to be budget stringencies leading to a contraction of subjects devoted to Asia, while the pool of Asia specialists was shrinking due to retirements and the lure of overseas posts. Some language areas fared better than others, Japanese being the most popular, though in-depth study of Japanese and northeast Asian society, politics and culture was not widespread. The number of students studying China, or a Chinese language, made up a tiny fraction of less than two per cent of all undergraduates. The report noted that while Chinese and Japanese were 'relatively secure', the teaching of languages in areas of lower demand, such as Indonesian, was in danger at a number of universities (Fitzgerald et al 2002, xv-xvi).

The Australian Society of Indonesian Language Educators conference in 2005 was told that the overall state of Indonesian language study, though it varied across the country and at different educational levels, was in stark decline (Hill 2005, 41). A series of events from 1997, including the bombings in Bali and Jakarta, represented a cascade of negatives, exploited by a sensationalist media. Even committed Indonesian teachers faced resistance within their schools from parent groups and students influenced by public opinion. Indonesia had not helped by banning two Australian academics or by making research visas hard to obtain. By the end of the Coalition government in late 2007, the picture of Asian studies in Australia was one of systematic decline, while the superficial treatment of Asian matters, such as in business and tourism courses, was proliferating. In spite of calls for urgent action to protect Australia's Asian knowledge base, the 2007 House of Representatives inquiry into service industry exports responded by recommending increased promotional activities for educational exports (HR 2007, 143-4), reflecting the persistence in the attitude of seeing knowledge as a commodity.

In response to market demand, there was a massive growth of courses serving international students, even though these were likely to focus on a narrow band of vocational areas that provide immediate cash flow benefits. Due to rising concerns over quality, new institutional arrangements were introduced under the Education

Services for Overseas Student Act 2000. This was ostensibly to protect those coming to Australia on student visas under the process of quality auditing, while allaying domestic fears that the system was becoming a diploma mill that provided easy access through Australia's immigration processes. However, the main function proved to be in marketing, by reassuring overseas customers that Australian higher education was being carefully monitored (Vidovich 2002, 405). Along with other factors, to be discussed in more detail in Case Study 2, including the lack of an intermediary higher education authority, the process of constant review, reform and change over recent decades, and the growing regulatory burden of compliance, the process of quality assurance became a paper shuffling exercise. Without additional resources or better planning, universities were struggling to properly meet their actual requirements (Vidovich 2002, 405; Reid 2004, 4). In spite of rhetoric surrounding the benefits of cultural exchange and the 'internationalising' of the curriculum, few Australian students travel abroad to study. Moreover, even though on some campuses more than a third of students are from families where English is not the main language spoken, there exists 'little evidence of profound curriculum change' (Marginson 2002, 424). In many respects, the reverse is occurring at a time when the need for stronger and longer lasting relations is critical.

Australia's closer alignment with the US, and the shift away from regional integration, undermined moves towards building institutional structures to assist and promote closer research linkage at the regional level. These moves could be seen, however, as a natural progression being driven by regional economic and social forces, as previously discussed (139,140-1,151). While regional integration continued on many levels, including all manner of trade, the work towards institutional development – at the symbolic and diplomatic level – was patchy and left unfinished. Instead, Australia's close alignment with the US (examined in Case Study 3) served to reinforce old prejudices, casting Australia as an 'outsider': a supplier of commodities rather than any kind of partner, and 'insider'.

Conclusion

Australia is unavoidably bound up with Asia. As much as the forces of globalism are redefining the nature and scope of state power – as will be examined in more detail in

Chapter VII – global factors are also implicated in dramatic change at the regional level. As has been shown, however, these changes often provide the material circumstances that will shape future directions. Regions are increasingly being defined by greater internal mobility, closer communication and more intense economic activity, leading to the emergence of closer regional networks, creating the imperatives for new organisational forms. In the overall scheme of state formation, and the evolution of the nation state (traced in Chapters I-III), these changes represent the growth of a new framework and environment for the articulation of state power. This is again more complex and variegated. At one level, global factors are causing an outward expansion of state activities, and this is often expressed through more intense cross-border social and economic interactions; however, regional conditions are generating distinctive patterns of interaction. The proposition advanced here has been that the national interest of the state will be increasingly defined by its ability to take part in these *formative* and *configurative* processes underway at the regional level. Moreover, patterns of educational and scientific exchange provide the precursors, and configurative pathways, for this to occur. The substance of these emerges from the way in which educational linkages, collaborative partnerships and organisational initiatives each work together to achieve common problem solving, the process of which reinforces social and political networks.

Australia was a catalyst in the expansion of higher education exports across the region. It provided a model, which in combination with advice from international bodies, including UNESCO, the World Bank, the OECD and the Asian Development Bank (Marginson & Rhoades 2002, 295; Jolley 1997, 137), led others to follow suit. However, many of the advantages of being a pioneer began to slide away as competition grew, both from countries within the region and those in the northern hemisphere. This has forced Australia to press whatever competitive advantages it might possess in terms of geographic proximity, long-term historical association and shared regional aspirations. Success on these fronts depends much more on the extent to which Australia is able to build and consolidate structural relations, a large part of which may be brought about by forming strategic research linkages. The above discussion shows that failures from the past relate to a series of linked problems. The first stems from the sudden influx of high concentrations of foreign students. This has tended to narrow, rather than widen, the proportionate scope for cultural integration,

due to the effects of social polarisation. Compounding this is a lack of strategic investment in Asian languages and cultural studies, causing two effects: preventing greater outward student exchange to Asia, and generally limiting the receptivity within Australia to Asian cultural integration. These problems then create a third problem, or dilemma, which is that they leave undone the preparatory work for more intense research linkage that may be generated in the first instance through postgraduate and post-doctoral activities, as an extension to undergraduate exchange. Moreover, the regional institutional infrastructure that can facilitate and extend this process, by priority setting and providing stakeholder linkages, has languished.

In regional terms, Australia arguably has one of the most sophisticated higher education and science policy capacities, and the inability to translate this into the better coordination of regional policymaking has been a great failure in diplomacy and leadership. This is an outcome of the overblown ambitions for APEC to become a dominant regional structure rather than Australia gently using the leverage gained through education linkages and increased economic ties to build and consolidate scientific linkages as a basis for more lasting ties. The absence of a strong administrative role for APEC represents a missed opportunity for countries in the region, but most particularly Australia. The potential offered by APEC points to the way in which Australia's relatively well-developed capacity and experience in managing a complex national innovation system might help solve looming problems in the region, as exemplified in China. These relate to the acknowledged need to put in place more coherent higher education, science and technology policies that enhance creativity and productivity, and in doing so, generate other benefits in terms of citizenship and equity. The mechanisms for closer cooperation and coordination that would allow Australia to assist in this process were put in place; however, APEC did not evolve in a direction that would allow these to become instrumental in shaping regional initiatives. The lack of a strong institutional structure behind the organisation, and the lack of active participation and commitment by member countries, meant that the various forums and initiatives proved hollow.

Aspects of these problems have been noted previously. Macintyre and Marginson (2000, 424) observed that: 'the lack of cultural depth and diversity limits the economic potential of Australian international education. It pulls the universities

back to the template common to all Anglo-American countries'. As much as this appears to be correct in regard to the impact on higher education, by taking a broader perspective of higher learning – one that encompasses both higher education and scientific linkage through the development of collaborative and cooperative networks – the evidence points to more serious problems, and that the scope of missed opportunity is far greater than previously imagined. As a large geographically dispersed region undergoing rapid change, Asia faces major social and political problems, creating an urgent need in Australia for a deeper and wider understanding of the mutual challenges. Australia's role, conceived as a 'bridge', will become increasingly inadequate as the need grows for cooperation, tolerance and understanding on many levels. This can start with a strengthening of the relevant intellectual capabilities across the full spectrum of disciplines, which will involve long-term strategic planning and investment supported by a broad set of priorities. These already exist to some extent on paper (DEST 2006a) but do so within an institutional vacuum, and in the absence of serious political commitment. Most importantly, this would require a clear comprehension of what the comparative advantages of Australia's system of higher learning are, especially in relation to the complex demands of Asian regionalism, and how Australia can play a role in solving mutual problems.

This would also recognise that knowledge based networks can provide conduits for the development of economic and political relations, between nations and across cultures. Much evidence, both from historical experience, as previously discussed, and contemporary local area studies (Maskell & Törnqvist 2003) support this view. The processes and mechanisms are not always easily identified as they are embedded within the human interactions occurring across all manner of social and economic exchange. At the local (provincial) level, the precise causal links between higher learning and the broader social, economic and political change are often unknown. Notwithstanding this fact, there are clear associations between the activities of universities and provincial development, so the question is not so much whether these associations exist, but how they work? The few analyses that have been carried out indicate that these relationships are: 'highly complex and that the effects of higher education and research vary greatly, depending on the place and region (province)' (Maskell & Törnqvist 2003, 129-31). The argument put here is that the very same

mechanisms and principles apply to the way in which regional linkages in higher learning ultimately impact upon the broader economic, political and social relations, and also, therefore, demand closer attention in research. In other words, the fact that the networked university in Asia will determine the shape of the future economic and political development in the region needs to be taken *a priori*, and it is the precise nature of the mechanisms within specific national, social, or cultural contexts that demands research.

At the same time, in the light of this discussion it is possible to articulate a number of overarching principles. For instance, Australia possesses a mature and sophisticated research capacity built on very traditional European foundations. This is a product of its history, and one of the criticisms of its higher education system in the past has been that it was perhaps too traditional and too 'top heavy'. It was seen as elitist and possessing too great a capacity for fundamental research. As a result, reform over more than two decades has been geared towards changing aspects of this system, and often for the better. But in the process, long-held traditions have been challenged, and fundamental research capacities re-evaluated in terms of their more immediate monetary value. However, those same attributes, traditions and values are of increasing importance to many Asian cultures as they progressively embrace more Western styles of higher learning. Each is coming to realise the importance of these traditions that often also relate to ideas of academic freedom and critical enquiry, being the wellsprings of creative and productive research, and these are the attributes that represented pathways to social and scientific innovation rather than mere technical excellence. It may be said that Australia's comparative advantage lies in the very attributes that it has been steadfastly eroding, inadvertently or otherwise, as a process of ongoing reform.

Moreover, as a result of this, the transformative capacity for higher learning, and Australia's ability to provide a democratic influence is being diminished in the process. What is overlooked is the potential within international cross-cultural environments for higher learning to generate new codes, and common conceptual schemes, in which different ideological outlooks can be renegotiated and perhaps reconciled. This formative capacity, through which structural conditions are elaborated, is the medium in which the bonds of regional community and some shared

sense of identity can grow. Moreover, this capacity cannot be taken too much for granted in that it may not survive sub-division and dilution, but exists within the whole environment of the university. That is, this capacity does not derive from any single specialist pursuit or discipline, but grows out of the traditions of scholarship, critical enquiry and adherence to academic democracy, intellectual independence and activism, as the most valuable inheritance of the Western university. The fact that this capacity and the habits of mind, and the values it gives rise to, are systematically discounted in the process of packaging higher education for export should be of concern. This constrains Australia's potential to contribute to the idea of democratic regionalism, and this runs directly counter to the nation's interest.

The question that this leads to is: why are Australia's science and higher education plans so lacking in foresight and strategic focus? The internal conditions that have led to this lack of coherence will be examined in the following Case Study.

* * *

Chapter V - Case Study 2

Australian Higher Learning and the Exceptional Powers of the Regulatory State

Introduction

Universities are – this is not open to reasonable doubt – very peculiar institutions. (Crick 1963)

The private versus public status of Australian universities has never been quite so uncertain. They have been deregulated and encouraged to become more commercially competitive, yet they are more closely managed at virtually every level by the dead hand of bureaucracy. While most universities are legally part of the public sector, their income derives predominantly from the private sector, by way of student loan payments¹, direct fees and charges, consultancies and investments. State and federal grants and other forms of ‘assistance’ make up only 47.2 percent of their income (Case Study 3, Table 7) and this comes predominantly from the Commonwealth. It uses this to ‘micro-manage’ the sector and this is achieved by leveraging control and influence, or what some critics describe as ‘financial blackmail’. The scope of this varies but extends to most areas of university operations: staffing issues, research and publications, academic standards, curriculum and teaching, governance, administration and finance (Moses 2007, 265-73). Individually, universities have more administrative autonomy to engage in commerce; however, higher education as a national enterprise has become more tightly circumscribed through interventions by the Commonwealth. The federal government sets broad strategic directions, regulates many daily operations and governs academic standards, albeit often by ‘steering at a distance’. As a result of this single-desk approach, the sector is also arguably more open to political influence and direct meddling. However, the great complexity of this regulatory regime, and the fact that much of it is not subject to routine public scrutiny, means that the extent to which Australian academia is open to ‘capture’ is a proposition worth considering.

The academy is destined to have an awkward and complex relationship with the state, as a product of history. The academy might even be considered part of the state, though in line with the Anglo-American tradition, in Australia, it is anticipated

¹ The Coalition government did not treat student loan revenues as private but classified these as ‘government payments’ (DEST 2007b, 3). However, the OECD (2007a) regards them as a private source of income, as also noted by Marginson (2007b, 29).

to have institutional autonomy, and might best be categorised as part of the ‘quasi-state’ (Davis 1993, 24). At the same time public universities usually see their mission as having a broad social and civil dimension. This helps to define academic identity, though under current reform pressures everywhere this is becoming much more contingent and ‘negotiable’ (Henkel 2005, 160-3), and few better instances of this can be found than in Australia. Of those nations embracing the push towards ‘academic capitalism’ (Slaughter & Leslie 1997) from the 1980s onwards, Australia was among those on the American periphery to apply market-based policies with ‘unusual singularity and thoroughness’ (Marginson 2002, 418). The consequential decline in collegial decision-making and the rise of executive control within universities has been well documented (Meek & Wood 1997; Marginson & Considine 2000, 64-7; Marginson 2002, 421). However, what has not been previously explained is the combined role in this process of the administrative and political areas of government, where higher education sector policy is shaped. This is the ‘meso’ level, encompassing that area of policymaking that cuts across the executive, the bureaucracy and the institutions. This occurs below the macro level at which the nation state was previously examined as an international actor. The following Case Study will develop a tighter focus again by looking at the ‘micro’ level, in relation to interest group activity *within* the higher education sector.

This part of the analysis deals with relations that are integral to one of the central hypotheses advanced by this thesis. It has been argued that in combination with its utilitarian role the university is, in many respects, the conscience of the secular state, functioning as part of the ‘ballast’ that helps to keep liberal democratic processes in check and balance. To maintain this function it requires scope for self-regulation, partly in order to maintain internal equilibrium, but also to keep alive its traditions through which it maintains its organisational memory. A fundamental tenet of comparative higher education policy has been that this equilibrium is best achieved within a pluralist administrative context; whereas, centralisation is seen to have the opposite effect of stifling academic creativity and innovation (Clark 1983, 178). Historical evidence, presented in earlier chapters, illustrated how autocratic regimes invariably quash academic freedoms, and ‘capture’ the academy, yet also draw upon its instrumental power for political purposes rather than using the symbolic power of

the academy as a source of legitimacy. A key proposition flowing from this is that when the university is drawn into the political arm of the state, critical scholarship invariably declines, along with the symbolic values that underlie the idea of informed citizenship. The fact that this occurs is often assumed, but there has been a lack of theory to help explain how and why. The question this prompts is how might this general principle operate within liberal democratic societies? Does it become irrelevant, or does it emerge in more complex ways, given that in a multi-polar world the modern state has become an amalgam, representing a variety of state forms?

Aims and Methods

The basis for this hypothesis stems from the inherent tensions that exist between academia and the state, and this Case Study seeks to identify in more precise detail how these mechanisms can come into play, taking Australia as the primary example. The Case Study also advances the proposition that a failure to acknowledge the central distinguishing feature of the university, its civil purpose, is likely to cause systemic instability. Support for this leads to the conclusion that there is a strong case for the re-introduction of an intermediary body, or some other ‘buffer’, within Australia’s higher education administrative system, following the removal of the Commonwealth Tertiary Education Commission (CTEC), discussed in Case Study 1.

The method used is to locate Australia within a detailed comparative framework of state capacity, the theoretical grounds for which were laid out in terms of varying styles and modes of political participation (Chapter I, 58) and how these developed into national styles (Chapter II, 79, 86) reflecting varying conceptions of knowledge, embedded within the ‘morphological’ structure of the relationship between the academy and the state (Chapter II, 100-2). This makes it possible to examine the relative degrees of political and institutional change taking place at a number of levels, including the activities of advocacy groups, examined in Case Study 3. The current analysis looks at the cumulative impact of a series of complex policy trends and other developments across three areas. The first is the increased ability for the executive to impose policy from the top-down. This was achieved during the Howard years behind the rhetoric of small government and below a veneer

of ‘centrifugal’ policy making. In this context, the second step examines how the ‘deregulation’ agenda was advanced, coinciding with the re-consolidation of policy capacity, the strengthening of administrative resources and the tightening of the reins on semi-autonomous organisations, including universities. A third critical development was the way policy change was achieved by ‘steering at a distance’ mechanisms. These were initially intended for planning and strategic guidance, but became key tools of bureaucratic and political control, empowered by ubiquitous monitoring and enforced with the aid of a centralised system of data collection. Associated with these three key developments, and woven throughout, was the enlarged capacity of government to manage information flows, influence public debate and avoid internal scrutiny. It is argued that across this broad front, the self-regulatory capacity of the nation’s academic enterprise was eroded, undermining future capacity of the sector. Statistical measures are given to support the key claims, including the way investment in the nation’s research portfolio suffered a lack of strategic coherence, being out of step with international trends. This refutes claims that the many gains made from the ongoing reforms were worth the ‘pain’.

Antecedence: Politics and the Composite state

The historical, institutional and political context in which higher education policymaking takes place varies across national systems; however, it also adapts and changes as the nature of state power evolves, the conceptual basis for which has been elaborated upon (Chapters I-III). The way various groups, including higher education policy advocates, interact with government reflects the underlying structures of the state. As the modern state expanded its ‘infrastructural’ power, it also broadened its ability to engage with, or ‘penetrate’, civil society to bring about goals and objectives. As the despotic state went into decline, with the collapse of monarchic rule, the infrastructural power of the ‘autonomous’ state grew (Mann 1984 188-9). In this way, the bureaucracy has grown up as the ‘handmaiden’ (Weiss 1995, 35) to the modern state, helping to extend its infrastructural power.

As much as there is broad variation in the political styles of the modern democratic state, this is also true for the way in which insitutional arrangements vary in relation to the way groups are tied to the state, that is, how they are ‘institutionally embedded’ (Evans 1995, 12). This determines which channels exist for negotiation

and re-negotiation of goals and policies. Strong states tend to have corporate networks embedded in the state structure, and these tend to be centralised and hierarchical, while in 'weak states' decision making is more decentralised, competitive and negotiable. A state's structure can determine the way it will respond to internal events, such as the pressure for revolutionary change (Skocpol 1979, 140-8) and its response to external events. Katzenstein argues that the different activities of domestic policy networks set the conditions and constraints that determine state action as much as those events that occur within the international system. The major non-socialist trading and investing nations have been found to display a remarkable degree of political similarity, at a fairly general level; all of them being competitive, rather than authoritarian (Nye & Keohane 1973 cited by Katzenstein 1976, 3). The US is a model 'weak state' due to its decentralised decision making, even though socially it may be strong. France, on the other hand, is socially weak, but the state is strong (Katzenstein 1976, 14).

This macro view of state strength and weakness has become increasingly open to challenge. Atkinson and Coleman pointed out that highly resistant economic groups could be observed in strong states, in France and Japan, undermining the model of top down bureaucratic control. On the other hand, in Britain, Canada and the US, there was evidence that some sectors of policymaking were being corporatised. The anomalies pointed to the need for a more 'disaggregated' view in which state strength and weakness could be examined below the 'macro' level, with more attention to the underlying layers, particularly at the 'meso' or sector level, and also the 'micro' or firm level (1989, 48-9). Where Mann noted the inverse relationship between the despotic and penetrative state, Atkinson and Coleman similarly observed that strengthening the state at the macro level was likely to 'limit the capacity of state bureaucracies at the sector level to achieve autonomy' (1989, 52). To accommodate the array of forces acting between the different levels, they developed a matrix of relations, based on three key variables: state autonomy, the concentration of power and authority within the bureaucracy, and the level of interest group mobilisation.

How state power was configured within this matrix tended to determine the dominant mode of policymaking, as either corporatism or pressure politics. Varying degrees of pressure pluralism were common to the US, Britain, Canada, Australia and

New Zealand. At one extreme, low state autonomy and high interest group mobilisation produced ‘clientele pluralism’, where the state relinquished some authority to the private sector. This mostly occurred when the state lacked the resources and motivation to pursue a policy agenda. Interest groups took the initiative, such as in improving occupational health and safety, or jointly promoting exports. However, low autonomy, low concentration and low mobilisation was likely to lead to ‘parentela pluralism’. This is defined as a type of pact between selective interest group leaders and the party in power. As Bell argues, this was the case with the successful tariff lobby in Australia (1994, 142-4; 1995, 31-5) and this model also applied to the post-war operations of the Australian Vice-Chancellors’ Committee, as discussed in Case Study 3. At the other end of the spectrum, more common on the Continent, corporatist networks can be found at either the macro or meso level. These work on the principle of ‘mutual deterrence’ as competing sectors prevent their competitors from ‘realizing their interests directly (Atkinson & Coleman 1989, 57). With high state autonomy, high bureaucratic concentration and low interest group mobilisation, corporatism is ‘state directed’. If interest groups do mobilise, ‘concertation’ occurs, in that interest groups are involved in policy but within a tightly circumscribed framework. Usually only one element of business participates in policy formulation with the state, as often occurs in Japan.

One criticism of the policy network approach is that it is merely a descriptive device, given that the rational interests of actors within the network are the driving force (Dowding 1998, 137). However, this ignores the substantial historical basis of state formation on which policy network theory builds, and which provides the broader context of this analysis. Nonetheless, the criticism has been countered by a move away from the positivist model that placed great emphasis on the structure itself, towards a more ‘constructivist approach’ (Rhodes 2002, 400). In this, networks are also examined in the context of the larger social structures in which they are embedded (Thompson & Pforr 2005, 7). This issue came to the fore when Bell examined industry policy networks in Australia. The hypothesis that weak state structures and a firm-centred business culture would produce, in broad terms, the anticipated pattern of advocacy, lobbying and ‘pressure pluralist’ politics (2005, 25) was supported. But it was also evident that a large gap existed in previous research, and that the importance of entrenched ‘strong state’ public policy frameworks had

been ignored. Australia's 'mixed history' and tendency towards 'colonial socialism' had been undervalued, especially given the nation's history of large public infrastructure investment. However, this was mixed with a resistance to forward planning, shown by Menzies, and a strong culture of economic liberalism. The Liberal and Country parties, who shaped the post war policies into the mid 1960s, also preferred not to become involved at a detailed level in the affairs of business, so that 'assistance', rather than 'interference', became the by-word (Bell 1995, 31). Conservatives respected the autonomy of firms yet delivered massive protection. So the state tended not to be involved with microeconomic policy, with the great exception of compulsory industrial relations arbitration. Australia was distinctive in providing macro-level structuring combined with micro-level laissez faire.

The post-tariff era witnessed greater cooperation and stronger alliances within interest groups, ad hoc coalition building and the formation of stronger linkages in policy networks extending into government (Bell 1994). This accords with Sairoff's systematic comparative analysis that shows Australian parliamentarianism shifting towards corporatism from 1983, moving back to pressure pluralism from 1996 (2003, 458). However, as much as this would appear to be the case, it is also far too black and white a view, as will be shown. The system might have appeared to have shifted, or reverted, under the Coalition, but it was also the case that the conservatives built upon, and often extended, some of Labor's corporatist 'levers' and 'structures' while abandoning others. As a result, it was more the case that some mechanisms survived, leading to 'selective corporatism', with some sectors and particular business interests enjoying privileged access (Pearse 2007, 150-4) while others were obliged to engage in pressure politics at the periphery of government.

What may be significant is the broad picture that has emerged from this line of inquiry regarding how policy networks develop characteristics within a bounded and integrated state system. It is the nature of the system, its boundaries and overall characteristics – or morphology – that determines how it responds to the impetus for change. This view is supported by Levy who argues that by the turn of the twenty-first century, most states were displaying a mixture of strong and weak capacities. This enabled the various archetypes – British market pluralism, German negotiative corporatism and French statism – to all follow differing pathways towards much the

same market model (2006b, 367-8). In the same way that Atkinson and Coleman's stratigraphic, or 'side-on' view points to disaggregated sectors within a matrix, Levy's top-down comparative perspective reveals that nations are made up of various elements, with varying degrees of infrastructural potential, depending upon their historical, social and geopolitical circumstances. These set the pre-conditions through which institutions adapt, change, or remain much the same. For instance, this creates what Levy describes as institutional 'stickiness' (2006b, 9), where the impetus for change can be accommodated, or impeded, not necessarily by any direct mechanism, but due to the fact that institutions are social and cultural entities and tend to display inherent characteristics that influence pathways of change.

This may go some way in explaining, at least in theory, the ambiguity that exists in Australia, as it displays a combination of strong and weak state attributes. It has the political, historical and institutional legacy, and therefore the potential for statist style direction. However, this appears to coexist and often competes with a culture and attitude of liberal minimalist government. This often produces, as reaffirmed below, outpourings of 'small government' conservative rhetoric that masks decisive steps towards greater centralisation. For Pusey, what prevented Australia being considered a corporatist socialist state in the past, in the Continental model, was the autonomy of the states and territories and their role in federalism. This was less the case when tariff protection and infrastructure building ceased, and when centralised wage fixing came to an end, to be replaced by an 'alien framework' of American economic rationalism (1991, 12). This has since been accompanied, and further entrenched, by what is described as 'regulatory federalism', where the states operate almost as minor agencies within broad clusters of growing Commonwealth regulatory power (Parkin & Anderson 2007, 296). As will be demonstrated, the higher education sector provides a clear case in point.

Context: Reinventing Devolution

The federal Coalition inherited a fragmented higher education portfolio when it came to power in March 1996. Higher education was mostly located in education, training and youth affairs, while science, technology and some research policy was located

within the industry, science and resources portfolio. This was of no immediate consequence as the broad thrust of the former Labor government's programs were maintained albeit at reduced levels of support (Quiddington 1999, 14). It was anticipated that this would change with the Backing Australia's Ability (BAA) package, launched at the Innovation Summit in February 2000. The summit was reminiscent of the 1983 technology summit organised as one of Prime Minister Hawke's 'consensus building' exercises that was a prelude to sweeping reform (Case Study 1, 145-6, 150). Hawke had also created a permanent consultative forum in the Prime Minister's Science Council, the genesis of which is examined later (Case Study 3, 217). This was part of a greatly expanded Department of Prime Minister and Cabinet that was considered to be the most significant consolidation of centralised policy coordination in 25 years (Keating & Weller 2000, 61-2). When Howard came to office, he expanded the science council to become the Prime Minister's Science, Engineering and Innovation Council (PMSEIC) and this was made part of the Cabinet Policy Office, which was moved into Howard's own office to create an 'engine room of executive government' (Kelly 2006, 11).

In spite of these moves, Howard showed no great interest in education and research policy in his initial years in office, though, unlike Paul Keating, he did regularly attend the science council (Quiddington 1999, 14). Moreover, the structures he created, or consolidated, became useful when science and innovation, and higher education were later recognised as strategic priorities requiring a 'whole-of-government' approach (McClintock 2002 cited by Kelly 2006, 15). The innovation summit was the landmark event signifying the Coalition's newfound interest in this policy area. Ostensibly, the exercise adopted a participatory development model. An elaborate stakeholder participation process, involving many committees and discussion papers, was followed. The exercise was planned and boldly promoted as 'a joint effort of the Business Council of Australia (BCA) and government' (Howard 2000, 11). The fanfare event proved very successful in creating the erroneous impression that the BAA initiative was a product of 'mutual exchange' between academia, government and industry. For instance, it has since been argued that the BAA led to the creation of new forms of 'micro-governance' structures, thereby creating 'reciprocal engagement' between industry and government (Mintrom & Wanna 2006, 168). But the most significant cornerstone structure of this type – the

Industry Research and Development Board – was in fact established under Hawke, in 1986, mostly to administer the R&D tax concessions. The board’s guidelines were modified in 2004 (AGD 2007, online) in the context of changes to programs absorbed within the BAA program. In broad terms, there were no substantial redirections in policy with the BAA. There were indications from government that the package would provide generous increases in innovation funding. But many of the promises, especially those relating to universities, proved hollow, as outlined below.

What occurred behind the scenes was that the BCA had withdrawn from its coordinating role for the summit quite early in the process, after delegates were slow to register and pay the obligatory \$12,500 attendance fee. Departmental staff and ministerial minders stepped in, took over the coordination and effectively ‘stage managed’ the event (Quiddington 2000, 10). Above all, the aim was to ensure that a positive message went out across the media. What was not widely reported was that key ‘sea change’ initiatives, developed by the ‘summit implementation group’ and aimed at promoting an innovation culture, were abandoned at the last minute. The proposals had been negotiated at length through ‘stakeholder’ consultation, refined at the summit itself, but were removed from the final report. That document had been prepared and edited within the department before going to federal cabinet (Quiddington 2001a, 1-2). To its credit, the summit did provide some ‘networking opportunities’ and some practical ideas were put forward⁴, but on balance, the summit exercise was more about public relations and securing ‘consent and legitimacy’ (Aucoin & Bakvis 2005, 191). The coalition was more interested in creating the impression of ‘network governance’ rather than the substance. This is not at all unusual for this period, as research into a similar ‘participatory’ decision-making exercise aimed at water reform in New South Wales, clearly demonstrates (Bell & Park 2006).

While the rhetoric lingered, from the late 1990s, new public management theory – the conceptual basis for which is examined in Chapter II (93-4) – was losing its shine. Evidence from Canada, New Zealand and the UK showed that devolved policymaking could undermine capacity, and this could ‘exacerbate coordination

⁴ For instance, one of the many fruitful suggestions was that the ABC restart *The Inventors* program.

problems and potentially limit the scope for strategic thinking' (Edwards, Ayres & Howard 2003, 33). The concern was that this would lead to declining confidence in government. This was prompting a turnaround internationally, marked by moves within government to regain and reconsolidate policy capacity (Christensen & Løegrie 2005, 149). The coalition government in Australia was an early mover, regardless of whether or not public confidence in government was falling (Holland 2004 cited by Bartos 2005, 95). By the early 2000s, it had embraced what would become the typical range of strategies: strengthening the political-administrative centre, strengthening controls over of agencies and state companies, better defining accountability of subordinate leaders, and launching programs and projects to strengthen coordination. Critically, there was also the much wider use of ministerial advisers (Christensen & Løegrie 2005, 149-52).

With this agenda, sweeping public service reforms brought the restructuring and amalgamation of departments into policy mega-departments serviced by central agencies (Shergold 2004, 3). Science, education and research policy came together within the Department of Education Science and Training (DEST). In a rationalisation of statutory bodies, the Australian National Training Authority (ANTA) was also brought into DEST, and this accounts for a small percentage of the department's overall expansion, as detailed below (see *Data and Analysis*). This was all part of a 'regeneration' process to counter 'bureaucratic proliferation' as the government embraced the notion of 'seamless' policy delivery through a 'whole of government' approach (Shergold 2004, 4). For reasons of public accountability, statutory bodies were to be more tightly controlled and regulated using a 'template of governance', but the idea of loosening ministerial control over board appointments was firmly resisted (Bartos 2005, 95-9).

The upsurge in regulation coincided with DEST becoming a mega-agency. This was a product of various moves to rationalise and consolidate education policy, and was also due to an expansion in staff that was part of a significant growth in public service staff numbers (Table 5). As this Case Study was being compiled, in late 2006 early 2007, it was apparent that commentators had either not detected, or had chosen not to respond to, what had by then become a significant growth in the size of government, of around thirty percent, in spite of the clear contradiction this presented

to the Coalition's 'small government rhetoric' (Howard 2005, online). At the same time, however, there were many concerns about the diminished transparency and reduced accountability of government operations, including unprecedented constraints on the media (Kelly 2006, 10). As the Howard government grew larger, and more domineering, its inner workings became much less open to routine scrutiny.

The black box of government

Developments in higher education must also be seen from the perspective of changes within the executive and across the public service, as these create the framework for policymaking, particularly within areas of reform. From the start, Howard consolidated cabinet leadership within a presidential mode, beginning with the sacking of six departmental heads. While their replacements were not necessarily members of the 'party faithful' in the US style (Davis & Rhodes 2000, 87), they were adherents to a particular style of policy and management (Mulgan 1998 online). The changes also brought an end to the tradition of permanent tenure for departmental heads, making way for a regime of contracts and performance agreements.

A somewhat similar attitude was taken with the appointment of a succession of education ministers, none of whom, it could be said, articulated a novel or distinctive vision for Australian higher education and research. Rather, their chief qualification was an ability to impose unpopular measures and to tough out any ensuing debate. Amanda Vanstone presided over the initial round of budget cuts. Her combative style proved unpopular and she was moved in 1997 (Maslen 1997, 57). The conservative academic, David Kemp, sparked national protests by suggesting that Australia should adopt a much more complete user-pays regime. This would entail a system of student vouchers similar to the American model, abolishing student loans and applying market-based fees. Next, Brendan Nelson proved to be the most ambitious, introducing a wide range of micro-management controls (Duckett 2004) and making unprecedented incursions into academic freedom, as detailed below. Finally, Julie Bishop was moved into the portfolio as an election year loomed, and faced the task of having to smooth down many ruffled feathers across the sector.

The Howard government consolidated a trend whereby ministers, like the bureaucrats below them, came to rely less upon their own knowledge and expertise

within a portfolio, and more on their generic political skills and those of their minders. Ministers needed to drive policy from above, but in the continuous gaze of the media, they needed to distance themselves from any mishaps and unwanted outcomes, thereby also reducing the government's exposure to criticism. As a consequence, the standard operating procedure for ministers appeared to be: control information flows, conceal the way in which resources were used, and avoid evaluation. Ministerial minders assisted in the process, becoming the conduits of executive power. They helped steer departmental policy debates and decision-making, to ensure that policy options were kept within certain boundaries 'predetermined by an ideological agenda' (Walter 2006, online). They also oversaw the 'central political battleground' (Tiffen 2004, 201) of communications and media relations, providing the linkage between executive authority and the direction given to the corporate-styled media and marketing units run by each department in place of what were once information units. Altogether this ensured that cabinet discipline was enforced from the top of the decision-making hierarchy down to the administrative coalface and into the public arena.

This kind of discipline prevents close interaction between officials, journalists and external policy advocates, effectively creating a zone of silence around departmental operations (Grattan cited by Anderson 2006, 180; Kelly 2006, 10). Furthermore, access to information on internal departmental operations was diminished by sleight-of-hand countermeasures against freedom-of-information legislation, such as avoiding paper trails (Podger 2005 quoted by Kelly 2006, 12). Systematic evaluations and monitoring of public sector reforms became 'patchy' at best (Halligan 2003, 89). Parliamentary inquiries and committees can provide one window on government activities. According to Weller, these have an important agenda setting function, offering a wealth of information on the inside workings of government, although it is not known how they influence the political process (2005, 36). Also, they do not provide a regular and comprehensive source of information that allows for detailed analysis. The annual Portfolio Budget Statement (PBS) performed this function until 1997-98, at which point accrual accounting procedures were introduced. In the absence of an accompanying cash-based system of reporting, providing line item expenditures, the PBS conceals year-to-year shifts in program costs. In turn, this enables ministers to be very 'selective' in their use of official

figures (Barton 2005, 217), giving them a long head start in debates over the rationale of policy initiatives.

Without thorough and routine public scrutiny, and with reduced ministerial exposure, ultimately departmental heads carry the key responsibility for the execution of policy. In turn, they are directly accountable to the executive to whom they must ensure that outputs are achieved, in line with appropriations and their performance contracts (Halligan 2003, 89). Under these conditions, the extent to which senior public servants can be expected to act in the public interest, rather than their own interests, and therefore protect ministerial interests, has emerged as a complex and urgent matter for public debate (Mulgan 2000; Keating 2004, 153-73; Kelly 2006, 13-4; Podger 2007). This was evident under Howard following the ‘children overboard’ incident and the Australian Wheat Board sales to Iraq scandal (Mulgan 2006, online). These events revealed how Ministers could be insulated from developments on the ground even though there were strong suspicions that they had – or should have had – some knowledge and involvement. A strong adherence to cabinet discipline, the avoidance of paper trails, and the hands off approach to policy execution, all create scope for ambiguity. This is in large part an outcome of the shift towards a corporate style of cabinet government initiated by Hawke, consolidated and extended by Howard, and inherited by Rudd. The question this raises is whether the structural changes associated with this shift, and the politicisation of the bureaucracy, have become systemic features of Australian government, or can they be easily reversed?

When the rhetoric of the incoming Labor government moved to talk about ‘fat cats’ in the same breath as funding cuts (Tanner 2007, online), this was the signal that another change of the guards, within the upper level of the public service, might be imminent. How far the Rudd government would go to transform the shape and tenor of the public service, and restore accountability, was less clear. However, a heavy veil had been drawn across government operations, one that may not be easily drawn back. The result of this is that the regulatory authority that imposes wide-ranging accountability measures on the higher education sector is not necessarily held similarly accountable. This is part of a long-term trend towards corporate government, albeit pushed to new heights under Howard who successfully integrated ‘politics into policy and administration to a degree unachieved by any of his predecessors’ (Kelly

2006, 9). This was in part achieved by extending the scope of the consultative bodies, and the procedures initiated under Labor, while shifting focus towards a more directive policy style. The executive became the central policy engine. Advisers helped to hold the support structures in place, and provided a bridge that drew senior public servants into the hierarchy. The evidence from DEST, given below, suggests that this structure was replicated at the departmental level, with the Senior Executive Service (SES) being given additional support by the expansion of staff immediately below. This consolidated the hierarchy through which executive decision-making could be transmitted downward, rather than policy advice coming in through a plurality of channels.

Data and Analysis

The tipping point at which the Howard Government's approach to higher education was marked by control and containment was from 2000, and this deepened in 2004 after the Coalition gained control of the Senate. The hardening in approach coincided with the expansion in the bureaucracy, which, as mentioned, attracted surprisingly little attention at the time. The Coalition had made cuts to the public service after it came to power in 1996 and the number of public service employees reached a low point in 1999 (Table 5a). This reduction in numbers continued a trend evident from the early 1990s, when Labor was still in government. However, from 2001, there was a turnaround and the numbers began to grow substantially with the expansion occurring in middle and upper management. This consolidated a fifteen-year long trend in which the proportion of staff in the lowest levels, right across the Commonwealth public service, was being dramatically reduced. Having initially represented about one third of all staff in the early 1990s, the numbers fell to less than five percent by 2006. However, by this time, the overall numbers had also grown significantly, and now exceeded the 1996 level (Table 5) when the Coalition had won office.

Within DEST, from 2001, executive staff was recruited in the two brackets immediately below the SES. By mid 2004, the numbers had grown from 473 to 715 (Senate 2004, online E273_05) and this was part of an overall growth in staff in the

department of around one third to reach a total of more than two thousand (DEST 2002, 2003, 2005). At the same time, the department also began winding back on external consultancies: having spent \$24.6 million on consultancies in 2001-02, this dropped to \$15.6 million by 2004-05 (DEST 2002, 2005), suggesting a shift back to the internal generation of policy advice, presumably made possible by the expansion in senior staff.

Table 5. Total Staff Numbers and Staff Levels (1996-2006)

Table 5a Total Staff Numbers											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
All staff	143192	134049	121001	113831	113516	119506	123364	131740	131455	133593	146434
Table 5b Staff Levels (%)											
Trainees & Grad.	1.2	1.2	1.3	.9	1.3	1.4	.9	1.1	0.6	.9	1.1
APS1-2	19.9	18.1	17.0	12.3	9.4	7.5	7.0	6.4	6.3	5.1	4.5
APS3-4	33.6	35.7	35.7	36.9	37.9	37.3	37.6	37.2	36.6	35.7	36.1
APS5-6	27.8	27.6	27.8	29.6	30.4	31.9	32.5	33.2	33.6	34.1	33.8
EL	15.9	15.9	16.7	18.6	19.4	20.4	20.4	20.6	21.3	22.6	23.0
SES	1.4	1.4	1.5	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.7

Australian Public Service (APS), Executive Level (EL) Senior Executive Service (SES)

Source: (APSC 2006, online).

The growth in policy capacity, combined with the Coalition's control of the Senate, coincided with an unprecedented readiness by the executive to intervene in academic affairs, and this occurred on a number of levels. One of the most significant was a move by Nelson to appoint directly a panel of lay representatives to scrutinise grant applications, replacing the Australian Research Council's (ARC) college of experts (Senate 2006, 55). This had followed controversy over Nelson intervening in grant outcomes. His period as minister will also be remembered as a time of political meddling and restrictions to academic freedom that was likened to the 'McCarthyist period' in the US. This occurred after one vice-chancellor was warned by phone to 'be careful' about allowing academics at his institution to discuss certain topics publicly (Chubb 2006, online).

The intervention in academic affairs up till this point was much less explicit. For instance, the government was able to override proposals, developed through a 'consultative process', for a 'broad theme' to be adopted in setting national research

priorities (Stocker 1997, online). This meant that the final set of priorities (DEST 2006a) proved to be much more narrow in focus, benefiting some disciplines over others. This steering of the national research effort represented a subtle constraint on academic self-regulation. Similarly, national protocols covering the selection, size and the attributes of members of governing boards had an indirect impact, effectively removing ‘significant amounts’ of university autonomy (Jackson 2006, 8). The shift towards much more direct intervention in academic affairs might be dismissed as the actions of a particularly zealous minister. However, the broad scope for intervention at multiple levels was the product of administrative arrangements, the structure of which blurred the lines of demarcation between funding, regulation and partisan politics.

This became evident in the way that the promised increases in higher education funding, under the BAA package, were to be delivered. When the funding measures were translated into legislation, within the Higher Education Support Bill 2003, the initial hopes for the BAA were frustrated by the ‘unforeseen and unprecedented intervention into university operations by way of micromanagement’ (Gilbert quoted by Senate 2003a online, 23.3). These included controls over course enrolments, and the need to supply detailed ‘open ended’ personal information on students, relating to their enrolment and attendance. DEST officials would also have the power to enter and inspect premises at any time, altogether representing an ‘interventionist regime not seen before in Australian higher education’ (Gilbert cited by Senate 2003a online, 23.15). Some of the most excessive forms of Nelson micro-regulation, including a cap on students paying for full-fee degrees, were subsequently removed under Julie Bishop, giving universities more ‘flexibility and discretion’ (Gallagher quoted by Maiden 2007). This was seen to be heading in the right direction, though the institutional framework that provides ministers with wide discretion remained wholly intact.

Universities were each given \$200,000 to implement their part of the centralised computer system, the Higher Education Information Management System (HEIMS) used to routinely collect data. This was seen to be poor compensation for what some institutions believed might entail a new layer of management (Senate 2003a, online). When Democrat Senator Stott Despoja used Senate estimate hearings

to question public officials in writing on the ‘likely savings to universities and government from the implementation of HEIMS’, the written answer was: ‘The HEIMS system is required to implement the higher education reforms. The system will track and manage students’ consumption of entitlements including student learning entitlement, student loans and scholarships. There has been no modelling of savings to universities or government’ (Senate 2004 online, E105_5). This would suggest that the amount offered to meet compliance costs was arbitrary.

The poorly planned, perhaps ill-considered, implementation of major policy initiatives is consistent with a culture of exceptionalism, similar to that revealed by an investigation into the ‘hidden’ operations of the regulatory state⁵ in Britain. This showed that compliance costs tended to be pushed on to the area being regulated as ‘unfunded mandates’ (Power 1997 quoted in Hood et al 1999, 28). Also, total compliance costs were rarely logged across government: ‘Regulators aim to drive out duplication, overlap and unrationalised proliferation of activities, but they themselves are not subject to the same rules (Hood et al 1999, 34). For many of the reasons outlined above, in Australia the precise detail of the planning and rationale behind many areas of regulation is difficult to extract. Nonetheless, there does exist a very large footprint that is left behind from the impact of an expanding regulatory state. The Productivity Commission’s (PC 2006) analysis, *Rethinking Regulation*, indicated the presence of a \$2 billion regulatory apparatus that has emerged from the process described as ‘regulatory creep’. This has come about as a result of the doubling in the amount of legislation in place over the past twenty years, resulting in the imposition of compliance costs in the ‘tens of billions of dollars’. The report portrayed a system that was often conflicting, inefficient and obstructive, and one that often made demands for information that were excessive and unnecessary. A similar study into regulation was carried out a decade earlier, for the Bell report, and this reached similar conclusions, but the situation had remained unchanged. Much of the cause was that regulation was very often developed within departmental ‘silos’ (PC 2006, 15), which failed to consult with each other on the cumulative impacts.

³ This is distinct from the ‘welfare state’ where the provision of benefits and services is made directly by the state. In the ‘regulatory state’, these are provided indirectly, often through complex forms of governance, but where there is a separation between the operational and the regulatory activities of the state. The extent to which this trend is commonplace, and even global, is reviewed by Moran (2002).

A large amount of regulation and control over universities is due to a raft of legislation enacted from the mid 1990s. The Administrative Arrangements Orders for DEST show that of the 27 acts administered by the agency, eleven relate directly to higher education, seven of which were passed between 1997 and 2007. Most concern education services for overseas students and the creation of the Australian Universities' Quality Agency in 2000 (AGD 2006, online). The department itself grew large and unwieldy, with four sections dealing with key elements of higher education, and a total budget of \$21 billion that had expanded at a rate of more than ten percent per year. Around three quarters of appropriations related to science and higher education (DEST 2006b). The department grew bigger and more responsive to policy directives from above, but the question is whether it had the capacity to develop solutions that responded to what was occurring below? An ongoing shortfall in policy capacity, due to a 'lack of policy expertise' (Norton 2005, 107) suggests otherwise. A loss of brains trust would have resulted from the dramatic changes in staffing over the previous decade, in addition to the impact from restructuring and reform that began in the late 1980s. This was compounded by the overwhelming effect of a tightly consolidated executive empowered by new policy instruments and information technology systems used to implement radical policy change. The result appears to be a cascading downward flow in policy, unmitigated by systemic evaluation and coordination. This occurs in part because of the absence of an intermediary body, due to the demise of CTEC (Case Study 1, 150), which is unusual for a federated nation (Emmanuel & Reekie 2004, 21). The value of 'buffer bodies' continues to be well recognised in federal Anglo-American systems. They are a permanent and integral feature of US and Canadian provincial jurisdictions (Bowen, Kurweil & Tobin 1997; Fox 1994; Shanahan & Jones 2007, 38-39). More significantly, an intermediary body was reintroduced in New Zealand in 2003 (PCO 2007, online), having been removed as a result of reforms beginning in the 1980s. One of the key aims of the new body was to bring about 'regulatory coherence' (English 2006, 69-71).

The recurrent problem in Australia of 'red tape' going out of control may be just one of the more visible symptoms of a system not responding to the subject that it is dealing with and running ahead of itself. University leaders calculated (AVCC 2005, online) that institutions each typically needed to comply with around 100

separate State and Commonwealth reporting requirements and regulations. These were sometimes duplicated and conflicting, particularly so with commercial investments, which the Commonwealth invariably seeks to encourage but over which the States have legislative control. There are also signs that much of the information gathering and 'rituals of audit' are decoupled from the aim of striving towards an overall improvement in learning and research, as will be demonstrated below. In this sense, oversight becomes a systematic process of institutional 'colonisation and control', which creates a 'dysfunction' (Power 1997, 95-7) and which leads to disequilibrium.

At the end of the millennium, Australian higher education was claimed to be in the depths of a 'crisis' with declining morale and falling standards (Senate 2001), and this was followed by a stream of incidents, some related to 'accountability fatigue', leading to governance and institutional failure within universities, often resulting in financial crisis (Murray & Dollery 2006, 479-80). Yet at the same time, the system was undergoing expansion and was enjoying what appeared to be increases in productivity. As a result, concerns could be easily dismissed and the policy settings that contributed to this general state of affairs were carried into the next phase of implementation of the BAA (Senate 2003b, online). However, a wide set of quantifiable measures point to a pattern of long-term decay in research capacity due to systematic problems. These problems go beyond difficulties that can be attributed to transitional adjustments, but rather indicate systemic flaws.

One underlying concern is that the user-pays model strictly applied does not take into account the intrinsic value of higher education and the larger civil and social benefits. This means the social returns from higher education are undervalued. This was not seen as a serious problem, as the system was expanding, driven by demand. However, it is likely to become a problem with a contraction brought about from demographic trends in Australia and the likelihood of declining demand from Asia, as countries there seek to 'catch up' to the west by developing their own capacity (Altbach 2004, 32; Mazarol, Soutar & Seng 2003, 92). Furthermore, the declining private rate of return on the investment in higher education, due to high fees, is likely to discourage the next cohort from thinking about entering university, at a time when the need for graduates will be rising (Gallagher 2006, 11-2). Added to this, a long

period of financial stringency, and push towards generating private funding, has meant that fewer discretionary funds are available for universities to fund the basic research (Marginson 2007, 29) to build distinctive areas of scholarship and core capabilities. In other words, as Australian universities seek to charge more for services, they may be in less of a position to do so because of a decline in demand.

To encourage universities to generate additional income through industry collaboration, or by winning competitive grants, funding mechanisms are leveraged in that they usually come with conditions attached. Funding from the Commonwealth comes in a dual stream: about \$1.1 billion is provided annually in block funding, and a second stream of competitive funds, of around \$1 billion, is delivered through the ARC and the National Health and Medical Research Council. Dual streaming was designed to give institutions some flexibility, with competitive funding aimed at immediate national research objectives, and the block funds to be used in a more discretionary manner: for institutions to develop their own strategic areas of research capability. In practice, the allocation of block funding is proportional to the success rate of competitive grants. What then occurs is that much of the block funding is used to underpin and support the research capacity needed to carry out competitive research projects. In turn, this leaves individual universities with only 'limited flexibility and discretion' (PC 2007, 616). What was supposed to be 'additional funding' under the Coalition's BAA program was tied to competitive funding schemes, and this placed further demands on the existing research base, preventing any additional public investment in 'core research capacity' (AVCC quoted in PC 2007, 518), which is basic research, or the capacity to carry out basic research.

Varying levels of investment across the research spectrum will, in time, set the course for a particular strategic direction. Australia's scientific publication rates went up between 1984 and 2004, from a two percent share of the world's publications to reach almost three percent (PC 2007, 710). This increase in productivity is a key measure used to argue that the reforms to higher education since the 1980s, though 'painful' and 'strongly criticised', were having positive results, with many 'remarkably successful transitions' (Harman 2006, 171) to a new entrepreneurial environment. While it is the case that there are many more students attending Australian universities, researchers are producing more publications and collaborating

more widely, these may not be indications of increased competitive advantage. Indeed, the opposite may well be the case. For instance, it has been found that additional pressure to publish – in order to win funding – can artificially stimulate production by driving researchers to publish in lower quality journals. What then occurs is an increase in publication rates at the expense of quality (Butler 2003, 147), at least in terms of prestige. This would suggest that a deeper level of statistical analysis, which takes into account the policy settings, is required⁶.

The clearest indication of a run down in core research capacity is the changing pattern of investment in fundamental research, which comprises ‘strategic basic research’ and ‘pure basic research’. Data trends show higher rates of investment of up to sixty percent in strategic-basic research compared to pure basic research, and faster growth in experimental and applied research within universities than in other sectors (ABS 2003). Given that the overall level of basic research, across all sectors, has not changed substantially, this represents a shift towards more commercially oriented research, much of which is taking place within universities (OECD 2007b). More to the point, over a decade, there has been a significant decline in the percentage of basic research performed in universities, from close to seven percent in 1981 down to just over five percent in 2002 (Table 6).

Table 6: Percentage of R&D by sector for selected countries

Basic research as a percentage of R&D performed by sector												
	<i>Higher Education</i>			<i>Government</i>			<i>Business</i>			<i>Private Non-Profit</i>		
	1981	1992	2003	1981	1992	2003	1981	1992	2003	1981	1992	2003
Australia	0.67	0.64	0.52	0.31	0.28	0.30	0.05	0.06	0.07	0.53	0.79	0.59
France	0.89	0.89	0.86	0.12	0.19	0.22	0.03	0.04	0.05	0.48	0.40	0.45
Germany	0.78	0.73		0.38	0.39		0.06	0.06	0.04	0.22	0.31	
Ireland	0.46	0.33	0.48	0.05	0.04	0.23	0.05	0.06	0.09	0.06	0.08	
Japan	0.30	0.33	0.37	0.13	0.16	0.30	0.05	0.07	0.06	0.09	0.15	0.17
U.S.	0.67	0.67	0.75	0.21	0.24	0.29	0.03	0.06	0.04	0.38	0.47	0.52
Total OECD	0.57	0.66	0.64	0.21	0.24	0.29	0.04	0.06	0.05	0.27	0.47	0.46

Some dates are taken from the nearest available year. See Appendix 4 for larger data set and explanatory details.

Source: OECD Science and Technology Indicators, extracted by Stéphan Vincent-Lancrin (2006)

⁴For instance, Australia’s performance, measured by the relative impact of citations, shows a steady increase since 1999; however, the measure is highly volatile over short periods. The rate in 1988 was the same as in 2001 but shifted markedly between these periods (DEST 2005 cited by PC 2007, 712). Taking the long-term average, Australia’s position has undergone little change (Butler 2007).

In other words, Australia is doing much the same amount of fundamental research that it was doing at the end of the 1980s; however, a larger proportion of that has a strategic, or commercial focus and this larger proportion is being carried out in universities. This is a direct result of the policy settings that take away discretion within universities that in turn squeezes out opportunities for investment in basic research. In a very subtle fashion, this undermines the scope for self-regulation and the ability to devise strategic investments in research. The most severe consequence of this is the ‘alarming’ fall off in the number of students being trained in the enabling sciences, measured over the long term, since the 1980s (Dobson 2007, 71-72).

This reduction in core research capacity and training in the enabling sciences is a systemic problem, which can threaten Australia’s long-term strategic interests. Advanced industrial economies, including Japan and the US, are leading an OECD trend (Table 6) towards increasing the amount of basic research that is carried out within higher education, as this is one distinctive feature of what universities do. As other sectors – business and government and non-profit organisations – step up their research and development efforts, consolidating basic research within higher education allows universities to better maintain their ‘specificity’ and competitive advantage (Vincent-Lancrin 2006, 174-6). This point is reinforced by the fact that the world production of scientific knowledge is expanding rapidly as developing economies becoming more active, but they are much less able to perform basic research. It is, therefore, in the interest of countries such as Australia, which have this capacity, to consolidate this specialisation.

In summary, the extent to which Australia has moved towards a market-based approach to funding higher education is causing internal imbalances in the way the various levels of research, and disciplinary areas, are being supported. This is leading to a lack of strategic direction that is evident when considering international trends. Moreover, this is illustrated in the most immediate context of its trade relations. As countries in the Asian regions expand their own capacity, as discussed in Case Study I, international enrolments are expected to fall, suggesting that Australia will need to become more strategic and competitive in what it offers. However, the large amount of income gained from the years of delivering education exports to Asia has not being

reinvested in the intellectual assets needed to build lasting bridges between Australia and the region. Instead, there has been a gradual stagnation in Asian studies and the study of Asian languages, which has continued to prompt calls for urgent action (ASAA 2005, 5-6). Moreover, as previously outlined (Case Study 1), Australia's position as a collaborative partner in research with countries across the Asian region, as they seek to expand their research capacity, is firmly based on Australia's very traditional academic and scientific foundations, which include strength in basic research. Running down this capability is, therefore, counter-productive and lacks strategic coherence.

Conclusion

Australian higher education exists within a precarious orbit in relation to the state and is exposed to political influence and the threat of 'capture'. The most important sign that this was occurring from the later 1990s was the degree to which the locus of decision-making was shifting towards the bureaucratic and political, which had together strengthened their overall capacity to impose regulatory demands from above, without being held accountable from below. This picture was reinforced by the common experience from within the sector of there being little scope to make inputs into policy, other than reacting and responding to initiatives that come down from above (Case Study 3, 221). The situation came about through a sequence of incremental changes, implemented from both sides of government, that were often subtle in their immediate effects but which had long-term cumulative impacts. These include 'regulatory creep', the imposition of 'unfunded mandates', impacts from ceaseless monitoring, reporting and auditing, and the growing uncertainty of public service impartiality within a structure of increased cabinet and ministerial power. Together, these erode self-regulation and undermine academic discretion. At the same time, what was absent from the system was a clear-cut boundary to mark transgressions, which could be used to counter the gradual shifts in decision-making power. The use of an independent coordinating body, or some other form of institutional buffer, may not solve entirely the problems of the sector. However, it could provide a means through which a much more rational, transparent and evidence-based approach to policy formulation could be pursued.

The long-term impact of heightened political influence and declining self-regulation are likely to have wide implications. As the weight of strategic decision making shifts, and continues to accumulate within government, the academy as a whole will operate more and more as a state-run enterprise, with all the disadvantages of a centralised system, but without the advantages of consensus and mutuality that are part of those systems (*Introduction*, 18), in turn compromising the scope for continued creativity, innovation and productivity. The question that this analysis also raises is how could such a sharp disjuncture arise between the long-term strategic needs of higher education and the planning processes within government? A larger part of the explanation relates to the corporatist structures and procedures created as part of the corporatist Hawke government, involving a much greater centralisation of power, which were then consolidated and used to extend the reach of directive power under the Howard government. This supports the findings by Levy (2006a) that modern states can simultaneously display strong and weak state attributes. Further to this, Australia's mixed history of colonial socialism and market liberalism suggests that these provide latent tendencies that can re-emerge, depending upon the political circumstances. Moreover, these processes can be set off by the way in which a state may respond to global economic influences and pressures.

Much evidence suggests that the proposition advanced by this thesis, that as the power of the state becomes more entrenched, the more the state is likely to contain and capture the academy, also operates within the modern liberal state in ways that are deeply entangled within the state structure. For instance, these tendencies appear to rise and fall in conjunction with the latent tendencies of the state, and Australia offers a clear example of this process. The growth in the directive capacity of the Howard government coincided with the state moving to impose radical and authoritative change across the sector. However, the question this raises is why was there not a corresponding shift towards pressure pluralism, as the Atkinson and Coleman model would predict? In other words, why did the leadership of the higher education sector not respond in kind, and become much more politically active in order to redress these imbalances that threatened core principles of the academy? What were the mechanisms governing and mediating this two-way process? These questions are taken up in the next Case Study.

* * *

Chapter VI - Case Study 3

Power Politics in Australian Higher Learning:

The Best and Worst of Worlds

Introduction

My heart is full of pity for you, O young academic politician. If you will be a politician you have a painful path to follow, even though it be a short one, before you nestle down into a modest incompetence. (Cornford 1908, 1)

In the final decades of the millennium, the academy was politicised in many ways and at different levels, both from within and from without. Students and faculty were politically mobile from the late 1960s and into the 1970s, pushing from the inside for wholesale social change. By the 1980s, student activism had turned inward and reshaped the campus experience. When many governments around the world began viewing higher learning as central to economic policy, university administrators were forced to think more politically. Conversely, politicians became engaged with the substance of higher education policy as never before. Universities had moved from being the subject to the object of political action. But how much of this represented a change, and how much was part of a deep historical cycle? Some commentators argue that the rise in activism in the 1960s and 1970s was an aberration ‘rather than a continuing academic trend’ (Altbach 1980, 9). This bolsters the notion that elements of academic ‘radical conservatism’ sought to preserve the institution’s traditions at all costs, and with little regard to the possible benefits of reform. The counter position, supported here, is that academic radicalism often provides a safeguard that not only ‘serves to protect scholarly rights and freedoms’ (Sarah 1976, 87), but serves a critical social function. Political activism is an inherent function of the continual process of revolution and renewal associated with the two-way flow that characterises the binary relations between the academy and the state.

Within this context, this Case Study reports on research into the political effectiveness of Australia’s university leadership, including interview data on the attitude of higher education leaders, members of the former Australian Vice-Chancellors’ Committee, towards the practice of political lobbying. It is argued that one of the causes for a failure in political advocacy by the higher education lobby relates to the fact that this group became fixed in its outlook, and their tactics, and unable, therefore, to adjust to a new mode of politics. This may help to explain why the problem of ‘status incongruence’ (Evans 1980, 1009) for academics persists in Australia, in that it is an anomaly that this group does not exhibit ‘high prestigious status’ given the expansion, and increased

economic importance of the nation's higher education sector. This paradox coincides with a significant under investment and reduced autonomy within higher education (Case Study 2) at a time when the strategic importance of universities is growing (Case Study I) in terms of the broad national interest.

Similarly, while government rhetoric portrays higher education as amounting to a public 'cost', even conservative estimates indicate that the sector actually returns a healthy surplus to society. This includes higher tax revenues to the Commonwealth that far exceed the \$6.6 billion (DEST 2007b) in outlays to the sector. The reason is that changes to Australia's income contingent loan scheme repayments have shifted the rate of return on the investment in higher education tipping the 'balance sheet' of costs and benefits towards government (Cabula, Kenyon & Koshy 2000; Borland et al 2000; Johnson & Wilkins 2002). The tax return revenue generated from the increased productivity of graduates varies from a very conservative estimate of a net benefit to government of \$9 billion (Johnson & Wilkins 2002, 29) to as high as \$22 billion for 1998-9 (Borland et al, 2000) and expected to rise to as much as \$37 billion for 2010-11. This does not include the large annual earnings from exports, amounting to \$12.5 billion in 2008 (IDP 2008, online), the extent of which was greatly underestimated for many years (ABS 2007, online).

Furthermore, the benefits that universities provide through research are often undervalued in public debate, and this includes substantial spillover effects flowing to industry and the economy. This is particularly the case with academic research, where there are strong incentives to publish. These returns are estimated to range between 20 and 150 percent (Borland et al 2000, 26-7), a significant portion of which find their way back to government in tax revenues due to increased productivity. According to the Productivity Commission, because of the nature and scope of these research spillovers Australia runs a risk of under investing in higher education. It points out that spillovers are highly dependent upon the quality of research, rather than the quantity (PC 2007, 63). In other words, a policy approach that leads to the expansion in the number of publications, at the risk of quality (Case Study 2, 194), is counterproductive. It serves to diminish the prospective gains from research spillovers.

Not only does the sector generate a surplus, the evidence points to it being used as a 'milking cow', and the long-term impacts of this, in terms of a run down in capacity, were

considered in Case Study 2. The political question that these economic facts point to is: why does higher education not receive a more equitable treatment in federal budget outlays, acknowledging the sector's contribution to the economy, to allow for more sustainable levels of investment? How much of this can be attributed to the political process, including the role of advocacy among university leaders?

The standard defence to this is that Australians are deeply anti-intellectual, conservative and pragmatic in their politics and, consequently, there are 'no votes in higher learning'. But the same could be said about multiculturalism, given that 90 percent of the population initially showed opposition to the policy (Lopez 2000, 22). Nevertheless, a well-organised political elite, forming a 'coherent network' and riding on a wave of activism, could 'overcome the lack of a constituency and disunity' to penetrate government and install multiculturalism as an idea that was entrenched across five departments (Lopez 2000, 22-5). As Connell and Crawford note, in their work on Australia's intellectual workforce, the nation – in spite of its colonial circumstances – has a larger higher education system, a relatively high consumption of books and has seen interesting intellectual movements flourish (2006, 2). Moreover, while Labor was historically an advocate for mass higher education, realised by the Whitlam government's abolition of tuition fees in 1975, it was the post-war Menzies' conservative government that laid the foundations for a mass system from the 1980s. So, claims of conservative anti-intellectualism may also need to be seen in context.

Anti-elitist rhetoric was certainly used with devastating effect by the Howard government in the 'culture wars' of the 1990s, to win popular support, particularly from those who might have felt abandoned by Paul Keating's 'big picture' politics (Case Study 1, 146; McKnight 2005, 154). These populist tactics were part of the mobilisation of conservative politics taking place almost simultaneously in Australia and the US (McKnight 2005, 146-54; Skocpol 2007, 64-5) as a backlash to the entrenched liberalism of the 1980s. However, this was politics being played most aggressively at the margins, rather than representing what was necessarily acceptable to the mainstream. Blaming anti-intellectualism is quite possibly a distraction from the alternative proposition that supporters of higher education, and Australia's intellectual elites, have simply failed to mount a strong political case and engender broader public support for their cause. As a result, they were unable to hold vital territory in the face of a sustained populist attack in

which anti-elitist rhetoric neutralised the alternative discourse of Australia being viewed as a ‘clever country’. This was the political backdrop to what became a period of downturn in investment in Australian innovation (Richter & Buttery 2004, 122-4; Case Study 2).

In light of these events, debate over the national politics of Australian higher education funding is usually framed by two counter hypotheses, referred to here as ‘insurmountable odds’ versus ‘incompetence’. The first is that university leaders face insurmountable opposition, confronted by anti-intellectual rhetoric, the misplaced economic rationalism of government and the relentless advance of managerialism (Corden 2005; Saunders 2006). As a consequence, this disarmed the academy, thereby supporting the proposition that higher education was effectively ‘captured’ by the state (Case Study 2). The counter proposition stems from the notion that academics are inherently poor at making decisions, and their lack of administrative and managerial capacity, under present circumstances, has led to a series of governance and institutional failures (Murray & Dollery 2006, 479-82). This corresponds with a lack of administrative skill and political competence at the very top of the academic hierarchy. There is some agreement that many of the problems confronting higher education relate in some way to the first or the second, or some combination of both of these propositions, but deep disagreement over which is the dominant cause. However, it may be possible to shed a clearer light on this problem given that these concerns relate directly to the central ideas developed in this thesis: that relations between the academy and the state tend to display inherent morphological traits (Chapter II, 98-9). These relate to distinctive characteristics within a nation’s approach to higher learning and its dealings with the state. Key to this argument is that knowledge-generation systems and political structures both evolve in ways that are path dependent and reliant upon a flow of reciprocal interactions. A key aim of this case analysis, which focuses upon the ‘micro’ level of this relationship, is to demonstrate how underlying political structural imperatives come into play in shaping knowledge generation.

Aims and Methods

The aim here is to advance a third proposition suggesting that structural institutional change, and political circumstance, have together dramatically altered the role and function of political advocacy within the Australian higher education sector. In turn,

this brought the other two variables, outlined above, into play in particular ways and to varying degrees. In other words, neither capture nor incompetence, in isolation or together, provides an adequate explanation for the policy failure leading to under investment in the sector. It is suggested that the mechanisms through which this idea can be examined are found at the micro level, in regard to the collective lobbying activities of the vice-chancellors, as these represent a vital point of contact between the academy and government. The three central questions to be examined here relate to: how the higher education lobby has managed the transition to what is the ‘new politics’ of market liberalism; in what ways have the changed political processes forced a realignment and restructuring of the lobby; and finally, to what extent has the process of radical reform in Australia been a cause for disengagement between the executive and the larger academic body, thereby reducing the scope for sector wide cohesion?

The method used to examine these questions is the comparative framework based on state capacity elaborated upon in the previous Case Study, and as developed in earlier chapters. Within this broad framework, public choice theory is also used to examine the activities of interest groups. The empirical data used to test the theoretical claims is a comparison of the higher education lobby, its strategies and tactics, between the US and Australia, in combination with results from a set of structured interviews (Appendix 5) with members of the vice-chancellors’ (VC) lobby and a corresponding group of policy actors (PA) (Appendix 6).

Antecedence: Pressure Politics in a Changing State

In the same way that the bureaucracy functions in close relation to the structure of the state, this also applies, though perhaps to a slightly lesser degree, to interest group behaviour. Nonetheless, it is certainly the case that interest groups had little chance of existence within the despotic state. As the modern state expanded, its ‘infrastructural’ power and the bureaucracy became the ‘handmaiden’ to the modern state (Case Study 2, *Antecedence*). Interest groups came to play a similar function, although their role in this regard is perhaps best defined as being an informal ‘third chamber’ (Lane 1949, 156) within parliamentary democracy. Moreover, as there exists great variety among modern democratic states in the way political power is embodied in the institutions of

the state, this is also true for institutions and the shape of policy networks that often form a bridge between government and civil society.

In broad terms, over much of its history, the operations of the vice-chancellors' group operated within the mode of 'parentela pluralism' (Case Study 2, 178), whereby its political influence was largely based on special access and privilege, as will be detailed below. This pattern of interaction shifted towards corporatism from mid 1980, coinciding with a change in government in Australia, and the advent of a radically new political environment, the product of a long cycle of social change. This had begun with the emergence of social protest movements in the early 1970s and the spread of the rights revolution (Chapter II, Sects C-D), leading to organised lobbying becoming much more part of the political culture in Western democracies. By the early 1980s, this was reflected in an 'explosion in interest group lobbying in Canberra' over that decade (Star 1993 cited by Bell 1994, 145). From that point on, some industry lobbies, because of the more intense competition, became much more sophisticated, relying more heavily upon evidence based arguments and ad-hoc coalition building (Bell 1994, 138) in order to create policy networks that could penetrate government.

It has been argued that from 1996, under the Coalition, there was an observable shift back to pressure pluralism (Sairoff 2003, 458). However, Case Study 2 showed how the Coalition often built upon and extended many of Labor's corporatist 'levers' and 'structures' to create a form of selective corporatism through which access to government was tightly controlled, giving some sectors privilege over others. Moreover, these developments can be seen to be part of the way in which the activities of nation states draw on their latent and historic capacities, reflecting what has become the 'composite' structure of the modern state. In Australia, this has meant a display of the combined attributes of a strong and weak state. It has the political, historical and institutional legacy, and therefore, the potential for statist style direction. This coexists and often competes with a culture and attitude of liberal minimalist government. This can produce, as discussed earlier, 'small government' conservative rhetoric that conceals moves towards greater centralisation. As Case Study 2 illustrates, higher education provides a clear example of how this can occur,

as behind the veneer of a minimalist government were decisive moves towards ‘regulatory federalism’. Moreover, the structures and procedures formerly created as part of the corporatist Hawke government were often used to extend the reach of conservative power under Howard. This mirrors what has also been observed in the US from the early 1990s, where institutional reform spearheaded by Congress during the 1970s, created levers that were subsequently used to great effect by aggressive conservatives (Zelizer cited by Pierson & Skocpol 2007, 6-7). This is central to what Skocpol describes as the ‘great civic reorganisation’ and ‘rightward partisan tilt of civil life in contemporary America’ (2007, 65).

A golden era of bipolar politics

The vice-chancellors’ lobby group holds a key place between the higher education sector and government, and it has historically enjoyed the status of being the ‘voice’ of universities. As one of the few constants in a changing universe, the organisation has existed in close to the same structural form for more than eighty years. The group that became the AVCC – rebranded ‘Universities Australia’ in 2007 – initially came together in May 1920 as the heads of Australia’s six universities (UA 2007, online) located in each of the nation’s six capitals. The Australian university sector was homogeneous from its beginnings. Each of these institutions had adopted the very same ‘tertiary blueprint’ (Meek & O’Neill 1996, 61) with similar course structures and quality standards. The Commonwealth, however, played little role in education, and wielded much less influence than it would have liked. This was evident in the High Court decision of 1943, in the case of *The King v The University of Sydney*, when the court rejected the Commonwealth’s attempt to use its defence powers to control the number of students that could be admitted to a faculty, stating that:

The Commonwealth Parliament was not under the defence power even in time of war to assume complete control of the systems of education operating in the States either in the universities or in the schools (Quoted in Jackson 2006, 1)

This corresponds with what occurred in the US, with the passage of the so-called G.I. bill, discussed later (222). Little changed in the immediate post-war period, though enrolments increased as large numbers of ex-servicemen, and women, attended university, many on federal grants. By the late 1950s, there were eleven institutions and about 25 percent of students were receiving federal aid as a result of

the 1951 Commonwealth Scholarship Act. Regional institutions began to emerge, and the focus on technical disciplines was growing, but the sector remained fairly uniform: ‘Australian universities are structured almost identically and adhere with dogged faithfulness to the English pattern’ (Tompkins 1958, 409). This also meant uniform poverty, given that State-based funding was invariably tight, making institutions heavily reliant on fees.

This changed dramatically after the Menzies government embraced the recommendations of the 1957 Murray Commission. This called for a three-fold increase in federal support over the coming years, in part to address the perceived backwardness of Australia’s science training, and the ‘inadequate and obsolete’ condition of its engineering and scientific laboratories (Tompkins 1958, 367). Also, mindful of the dangers to university autonomy that could arise from an increased dependence on federal funding, Murray recommended the creation of a University Grants Commission (UGC), based on the British model. To gain the ‘confidence of the universities, the Commonwealth and State governments, and the general public’ its membership would consist of a full-time chair and seven part-time members, two laymen from industry and the professions, and five academics (Tompkins 1958, 367-8). Murray envisaged a specific role for the AVCC in providing advice and taking part in planning discussions, given that it was able to speak with a ‘united voice’ for universities. To fulfill this consultative role, the AVCC duly established offices in Canberra in 1966.

Over the following two decades the UGC, and its successor the Commonwealth Tertiary Education Commission (CTEC), provided the central focal point for the growth and the establishment of Australia’s higher education policy community. This period represented a high point of mutuality, and stability, in what was essentially a compact between higher education and the state, analogous to parentela pluralism, given the exclusive and privileged role of the vice-chancellors. However, it is important to note that at this stage, the AVCC operated much more as a guild, or a club, than an industry pressure group. The critical event that brought this golden period to an end was the demise of CTEC in 1987 (Case Study 1, 150).

A sudden overwhelming passion for higher learning was not necessarily what had prompted Menzies to provide much of the support needed to build a modern mass higher education system in Australia. This period also marked the beginnings of the space race, triggered by the 1957 launch of the Soviet Sputnik, the first satellite ever to orbit the earth. The US had begun a military build-up from the early 1950s in the face of Soviet expansionism, and international tensions were running high from the Suez Crisis of 1956. World politics were sliding into the bipolar nuclear standoff of the Cold War. For Australia's part, it had offered its backyard, the remote desert site of Maralinga in South Australia, for the conduct of seven atomic weapon tests between 1956 and 1957, signifying the nation's full participation in the creation of a new hegemonic order. This represented a new phase of modernism that renewed, and altered in complex ways, the partnership between higher learning and the state (Chapter II, 95-6). Nonetheless, scientific advance was the single most potent symbol of state power. On one hand, this was displayed within the extreme statist Soviet model, in which political ideology dominated the conduct of scientific inquiry. On the other hand, in the Anglo-American liberal state, the conduct of science was being loosely configured, largely independent of the state, but no less central to the power and legitimacy that it provided the state. Events at this time must, therefore, be considered within this changing political environment, and the ideological battle that was being waged at a global level.

Notably, it was also during this period that the deep linkages between the US and Australia, the great potential for which had long existed, were now realised. Both were 'born modern' as part of the great Enlightenment experiment. Moreover, both were peripheral colonial Anglo-Saxon cultures with massive physical frontiers to explore 'arrest and tame' as part of the great Lockean ideal of bringing modernisation and civilisation (Chapter II, Sect. A). Notably, each were often viewed in the nineteenth century, recorded by Mosler and Catler, demonstrating similar 'presumptions, arrogance and conceit', and each shared a similar post World War II experience that was shaped by the social forces of 'hyperconsumption, suburbanization and ideological liberal capitalism' (1998, 8). Many Western nations had a generally similar experience of urbanisation, but Australia's and America's historical and geo-political circumstances made their mutual ties distinct. This helped to consolidate the political realignment that took place in the post-war era, assisted by

the faltering and collapse of communism, leading to the creation of a global ‘superstructure of allied neoliberal states’ (Chapter III, *Introduction*), with Australia as a key strategic component in the southern hemisphere. In other words, global strategic events cannot be separated from the causal factors that prompted changes in sectoral policy.

These events led to a noticeable decline in concern about American cultural imperialism in Australia as it embraced a new wave of market liberalism with zeal. Bell argues that while both countries witnessed a rise of cultural popularism from the 1980s, in Australia, this was accompanied by the importation and consolidation of a more presidential mode of governance (2002, 38). This was not only related to executive leadership, and how this made use of media and market polling techniques, but in the reshaping of the bureaucracy (Pusey 1991, 4; Case Study 1, 146; Case Study 2, 184) and in sharing of ideas that delivered the new Third Way politics (O’Reilly 2007). In some cases, Australia was not only taking ideas from the US, but unlike the US, it was able to transform them into radical policy innovations, as occurred with the imposition of the world’s first student loans scheme, the Higher Education Contribution Scheme (HECS). The idea had been mooted in academic circles in the US, but it was the Hawke Labor government’s adventurism and corporatist drive that transformed the proposal into an ‘ideology-snapping innovation’ rather than allowing it to become a ‘stalking horse for right-wing fiscal rigidity’ (O’Reilly 2007, 122).

The push to embrace the US benchmark model of higher education within Australia entailed a degree of state intervention and centralised control that would be antithetic to American political culture, such as the use of a single central information network for courses and enrolments (Case Study 2, 189). Other than Israel, no other Western nation has made such a dramatic shift from public supported higher education towards private support, for which the US is the model (Table 7). In contrast, the higher education systems on the Continent were always expected to find difficulty in adopting key aspects of the US model due to their very different traditions, the limited extent of bureaucratic reach over the academy and lack of institutional executive power (Trow 1985, 148; Marginson & Considine 2000, 60). This proved accurate given that progress towards the adoption of the US market

approach on the Continent has advanced at a slow pace. Australia’s higher education system is unusual but in ways that are consistent with the nation’s ‘mixed’ heritage. In some respects, the system is similar to those found in Europe, with all the markings of corporatism, and this clearly relates to its colonial nation building experience (Marginson & Considine 2000, 53). However, in the Anglo tradition, there are strong institutional executive powers due to a history and legacy of academic autonomy. Combined with a growing alignment with US presidential politics, translating into greater centralisation of political power, radical reform became possible. What was absolutely vital to this process, however, was the way in which the state co-opted the university executive. However, this had serious ramifications for the way in which higher education politics could be conducted from that point on.

Table 7: Relative proportions of public and private higher education funding for selected countries

	1995		2004	
	<i>Public Sources</i>	<i>Private Sources</i>	<i>Public Sources</i>	<i>Private Sources</i>
Australia	64.8	35.2	47.2	52.8
Canada	56.6	43.4		
Ireland	69.7	30.3	82.6	17.4
Japan	40.2	59.8	41.2	58.8
Korea			21.0	79.0
N.Z.			60.8	39.2
U.K.	80.0	20.0	69.6	30.4
U.S.	37.4	62.6	35.4	64.6
OECD average			75.7	24.3
EU19 average			84.0	16.0
Israel	59.2	40.8	49.6	50.4

Source: Extracted from Education at a Glance database (OECD, 2007b). See Appendix 4 for more complete data set, relative change indices and explanatory notes.

Context: Rational Choice and State Capacity

Australia’s ability to rapidly shift towards the US model of higher education needs to be seen as deriving from ‘waves’ of American influence (Rolfe 1997, 200), which by the 1980s, it was able to harness and use on its own terms. In less than twenty years, the Australian higher education system went from being a predominantly publicly funded relatively elite system, operating within a privileged political milieu, to a mass system obliged to compete both in the open marketplace for funds and within the

sector for a diminishing slice of public funding. The marketisation and massification of higher education may be a global phenomenon, but the scope and speed with which the changes occurred within Australia were unparalleled.

The creation of a unified national system meant that by the early 1990s, due to amalgamations, there were 37 public institutions of higher learning in Australia, no longer representing a neat homogeneous set. As categorised by Marginson and Considine, there was the cluster of older universities, comprising the ‘sandstones’, the ‘redbricks’, and the ‘gumtrees’. Added to this were the post 1986 institutions, the ‘Unitechs’ and the ‘New Universities’. The process of amalgamating meant that the distinctions were not absolute, however, the older institutions were more prestigious, better resourced and enjoyed established reputations for research, and particularly the sandstones and redbricks. The Unitechs and New Universities tended to be each respectively more focused on vocational training and building student load (Marginson & Considine 2000, 188-232). These were also among the key factors that created lines of difference, causing the AVCC to fracture into subgroups.

The Dawkins reforms, from the late 1980s, set off two other major trends that had implications for the higher education lobby as a whole. The power and authority of the vice-chancellors, at least within their own institutions, grew enormously while the power of the VCs as a collective organisation rose and then fell. When the Hawke government abolished CTEC, this initially enhanced the role of the AVCC as it became the sole voice for the sector. However, in the absence of a strong independent buffer, the government began dealing with the heads of each institution, which ultimately deepened the latent fissures, and the body began to slide into a ‘disorganized state’ at the periphery of government (Marshall 1995, 42). At the very same time, the sudden and ‘spectacular’ expansion of the executive layer of universities represented a major policy shift (Marginson & Considine 2000, 62-71). The focus was now on the role of the executive and university governance, and the direction was towards the American style of presidential leadership, a move that occurred earlier in Australia than elsewhere (Kogan 1999, 276; Meek & Wood 1997), including moves to place VCs on term contracts, which has long been a feature of the American presidential appointments (Kogan 1999, 272).

Vice-chancellors became pivotal in the transformation of higher education in Australia, especially given their primary responsibility as managing, and sometimes even defining, the ‘uncomfortable boundaries between collegial and managerial culture’ (Bargh et al 2000, 159). The position of vice-chancellors therefore, became symbolic of the larger changes across the sector, and part of an international trend. However, the scope of the change was much less evident in the US where university presidents ‘always possessed powerful executive responsibilities’ (Smith et al 1999, 284). Evidence from around the globe shows that the reform process, and the scope of reform, tends to bring a concentration of power to administrators (Clark 1983, 157) and this was most evident in Australia, with the strengthening of executive power within institutions (Marginson & Considine 2000, 64-7).

As managers, VCs are not typical corporate leaders, nor are they purely academic leaders, as their skills must now extend to ‘networking, lobbying and persuasion’ much more than the traditional academic administration’ (Bargh et al 2000, 161). Their task is perhaps best described as ‘protecting nonrational academic values from the pressures of rationalised management systems’ (Birnbaum 1999 online). Performance of this task clearly depends upon the prevailing political conditions. The dramatic change in Australian higher education suggests that the position of vice-chancellor, to be effective, demands an almost superhuman effort. Australian VCs work on average 77 hours a week, including weekends. They belong to an intensely interpersonal meetings culture, and they are called upon to spend increasing amounts of time networking and lobbying. In this and other ways, there are ‘striking similarities’ between the role of the modern Australian vice-chancellor and the US university president. This is particularly the case in relation to the heads of the more prestigious metropolitan institutions in Australia who spend more time on average at ‘vice-regal functions’, and meeting with ministers, public servants, foundations and benefactors, as well as attending cultural and other functions (Sloper 1996, 224-5). However, the evidence from the US and Australia, confirmed in interviews with individual vice-chancellors, suggests that the scope for individual action by VCs is much more limited and ‘formally circumscribed’ (Sloper 1996, 228) than commonly perceived. University heads are highly accountable to their boards. Birnbaum argues that the minimal impact that these people have is best judged by the

fact that ‘these institutions don’t change (much) with a change of leadership’ (1999, online). This may change as moves towards corporatism take a firmer hold. Further to this, there is some evidence that the appointment of Australian VCs has become dominated by chancellors who are often brought on to university councils for their business experience (O’Meara & Petzell 2007).

In general, there has been increasing demand for highly skilled university leaders with extraordinary capabilities spanning both academic and managerial responsibilities. This has occurred within a limited pool of experience, skills and talent. As a result, only a few vice chancellors have worked fulltime in government or have had senior level corporate experience though ‘plenty have worked on boards and the like’ (PA 5)¹. The precise nature of the professional demands of VCs, how this is changing, and how the profession is responding to those changes, is in itself perhaps a worthy topic of investigation. The available evidence is that very often, rather than carefully balancing the pressures of collegialism versus corporatism, the university executive as a whole tends to create a ‘mirror strategy’, deflecting the pressures coming from above for accountability and market performance, downward into their institutions (Marginson & Considine 2000, 71). This is seen as heavy handed, prompting sharp criticism towards the VCs, as part of the new class of administrators, for their ‘lack of managerial skills...compensated for by acting despotically without regard to logic or fairness’ (Clark cited by Murray & Dollery 2006, 483). These perceptions make worse the sense of disengagement between the executive, the academic body and the wider higher education constituency.

This disengagement, however, underlies the wider fracturing and fragmentation across the higher education policy community due to the lack of coherence within the vice-chancellors’ group as a key element. When the AVCC reviewed its operations in 2006, it was acknowledged that the biggest dilemma facing the lobby was a lack of unity and the difficulty in arriving at a consensus position from which to formulate a clear lobbying agenda (AVCC 2006). However, there is much less agreement as to what may be the root cause of this problem. This coincides with the lack of a concrete sense within the group of whether its main purpose is to

¹ Some detail on each policy actor (PA) and vice-chancellor (VC) can be found in Appendix 6.

represent the interests of a small group or a large group. As a small group it represents the interests of individual vice-chancellors, and might then be categorised as an elite group of very powerful professionals, in the model of a guild, similar to doctors (Olson 1971, 137). In the past, this aspect of the group led to it being viewed mainly as a ‘gentlemen’s club’ (Marshall 1995). As a large group, and one recognised as a ‘peak body’, it would represent the interests of the whole higher education sector. This is a role to which it has laid some claim in its own rhetoric (AVCC 2004, UA 2007), and this is also the general perception (O’Keefe 2007, 27).

In their interview responses, VCs often referred to the lobby group as a ‘peak body’, but the meaning was often ambiguous. Respondents invariably saw the main purpose of the body as being two fold: service to individual members and lobbying. But what emphasis should be placed on the breadth and scope of this lobbying, and tactics needed, were less clear. The generally accepted view was that the lobby should be ‘sector wide’ but only when ‘sector’ was narrowly defined. For instance, one vice-chancellor was unequivocal that being a member of the group brought advantages to ‘the higher education sector as a whole’. Asked how the AVCC had worked to mobilise the higher education community, the response was:

The AVCC is not an organisation that is there to represent students and staff. It represents senior management and quite specifically the VC, not universities. There are bodies to represent staff. In regard to students we have just worked together to do the finance report. (VC4)

At the point of reorganising the group during 2007, which mostly entailed a renaming, the dominant role of the group was still a complex and unresolved question. As a consequence, respondents varied in their views on this, but in ways that corresponded with their membership of sub groupings. These are divided into two main camps: the more dominant Group of Eight (Go8) and Innovative Research Universities (IRU), which are the ‘sandstones’ and the well established research universities; and, the Australian Technology Network (ATN) and the unaligned that mostly comprise the newer universities. As will be discussed below, the dominant group tended to support the ‘official view’ in most matters, and their definition of ‘sector’ usually meant the institutions collectively. They saw the lobby as principally assisting and representing VCs, and through them the ‘sector’, while members of the less dominant groups were

more likely to voice dissent on various matters, and preferred to see the group as being representative of sector-wide interests, defined more broadly as the higher education community at large.

The difference is crucial given that the VC's group is often key to the operations and effectiveness of the larger higher education and research lobby with its various origins, and which can easily become fractured. One division of this is firmly organised around a disciplinary base, at the top of which are the national academies, such as the Australian Academy of Science and the Academy of the Humanities. The second division has its origins in professional and labour-based groups, such as the National Institution of Engineers, and the Association of Australian Medical Research Institutes, and staff and student groups, including the National Tertiary Education Union and the Council for Australian Postgraduate Associations. This also includes ad hoc student groups, public research agency employee associations and various subsidiary groups, such as those representing technical staff.

Table 8. Peak national higher education and science groups based on origins

<i>Disciplinary</i>	<i>Labour/Professional</i>	<i>National Advocacy</i>
Aust. Academy of Science	Association of Aust. Medical Research Institutes	Ad hoc coalitions
Aust. Academy of the Technological Sciences and Engineering	Council of Aust. Postgraduate Associations	Council for the Humanities, Arts and the Social Sciences
Academy of the Humanities	National Institution of Engineers	Federation of Aust. Scientific and Technological Societies
Academy of the Social Sciences	National Tertiary Education Union	
National Academies Forum	National Union of Students	
	Universities Aust. (former AVCC)	

Source: Author's categories based on information from each group as provided by websites, with the exception of 'Ad hoc coalitions', which form around single issues, such as student poverty. These may draw in a wide selection of groups, including those listed, among others.

In general, the sector is widely fragmented, mostly due to the historic origins of the different groups, though it is also very stable, perhaps even entrenched. The exception to this is the emergence of new hybrids, beginning with the formation of the Federation of Australian Scientific and Technical Societies (FASTS) in the early

1980s, representing a wide disciplinary base specifically aimed at nation advocacy. The political pressures that led to the formation of these newer groups are the very same pressures that have forced the VC's group to attempt the make the move from being a professional 'guild' to a sector-wide lobby, and this is also the expressed aim of the group's rebranding as Universities Australia.

A new politics of higher learning

Events signalling the arrival of a new political era for higher education occurred on a wet Canberra evening on November 23, 1988. A large group of placard wielding scientists confronted Prime Minister Hawke as he arrived to open the new National Science and Technology Centre, which was a joint Australian-Japanese bicentennial project. This was a dedicated interactive museum on the foreshores of Lake Burley Griffin, between the National Library and the High Court. The pointed symbolism of the event was inescapable to media commentators as the group loudly protested the nation's run down in science funding and infrastructure, to the great embarrassment of Hawke in front of his Japanese guests (Beale, Dunn & Quiddington 1988, 88; Lowe 1998, online). The protest came in response to comments by science minister Barry Jones in August that year that scientists were the 'wimpiest possible lobbyists in their own cause...politicians are sceptical about research workers and scientists because they cannot impose any sanctions' (Jones 2006, 387). The protest had the desired impact as Hawke later embraced the rhetoric, and perhaps also the idea, of Australia becoming a 'clever country' and moved to have a greater focus on science policy, with the creation of the Prime Minister's Science Council. This became a key example of a consultative structure created under Labor that would be used by the Coalition to extend executive control over the sector (Case Study 2, 181).

No doubt the appointment of Jones as science minister gave the science community some confidence to mobilise, as it indicated a modicum of interest in science within government. Till that time, science ministers had been a 'rare breed' (Jones 2006, 387). Labor's technology summit of 1983, mentioned earlier (Case Study 2, 181), had also provided a necessary focal point around which new policy networks, with links into government, could begin to emerge. This was the context in which FASTS was created in 1985 in response to cuts to science in Labor's 1984

budget (FASTS 1996). This was a milestone in that FASTS was the first peak national lobby wholly intent on carrying out advocacy.

The situation was bleaker for higher education. Dawkins' sweeping reforms, which were largely driven by Treasury, and implemented outside the normal consultative process (Case Study 1, 145), were thrust upon the sector during the third Hawke administration (1987-90) and brought relations between government and the sector to a low point. When Peter Baldwin was appointed minister in the Keating government in 1991, he moved to build a stronger consultative approach, and by this time the AVCC had also expanded and was trying to remodel itself as a peak association. However, unlike student groups and staff unions, which lobbied government from the outside, the strategy used by the AVCC was to use 'persuasion', relying upon its 'insider' status (Marshall 1995, 49). For a time, it was able to provide this through the operations of the National Board for Education, Employment and Training, established with the demise of CTEC. However, the new body was under tighter ministerial control, dependent upon the department (Meek 1991,469) and often hamstrung:

This was a strange beast, a creature of government, but it had independent boards underneath it, nominated from various sectors... So, the Minister (Dawkins) could play off the advice it received from NBEET – which generated endless reports – the policy arm, against the department, the administrative arm...(PA4)

The incoming coalition government abolished the board in 1996 to take more direct control of policy. Till then, the board, and its associated structures, had supported a 'reservoir of policy expertise' (PA4) that then began to dissipate. What remained in place was a loosely configured higher education and research policy community. It had been clear to many from the early 1980s that the non-government sector was in need of thorough reorganisation and reform (NSTAG 1987), but this process was occurring unevenly and stalled completely in the 1990s. It was not until public interest developed in the idea of the 'creative economy' and the formation of the Knowledge Based Economy (KBE) branch within the department that this began to change. The humanities and social science academies, along with departmental assistance, held a 'creative economy summit of 2001' at the National Museum, and this set in motion the process leading to the formation of new a national advocacy

group, in the model of FASTS (Gillies 2001, 1,4) and the inauguration of the Council for the Humanities, Arts and Social Sciences (CHASS) in 2004.

What is interesting is that there was a significant gap between the creation of FASTS in 1985 and the formation of CHASS in 2004. The interval represents the time it took for the two legs of a revised structure for the science and higher education lobby to be put into place. This compares to other industry association regroupings taking place in roughly the same period, beginning with the formation of the Confederation of Australian Industry in 1977 and the creation of the Business Council of Australia in response to the 1983 national economic conference initiated by Hawke (Bell 1995, 36-8). By the early 1990s, a wholly revised industry association lobby – including further consolidation of the chambers into the Australian Chamber of Commerce and Industry in 1992 – had become a well established force within the national political landscape. The higher education sector, however, lagged significantly in responding to the changes that had been underway over some decades.

Data and Analysis

An analysis of interview responses indicates that members of the Go8 and the IRU subgroups were much more likely to express the view that the group was a peak body, and, while they acknowledged that the lack of unity was a problem, they were not inclined to see this as necessarily undermining the group's effectiveness. Their opinions correlated with the official view that a full-time professional advocate as chief executive – which is the main change with the new structure – could best act as 'an advocate for the sector' (VC2). Members of the other groups, particularly the unaligned, often expressed some circumspection: 'I personally think we will gravitate back to something that we already had' (VC 6). Another expressed the concern that the new advocacy model would lack the capacity to grasp the detail in areas such as 'indigenous education, infrastructure and quality issues' (VC1). Moreover, success of the new structure was likely to be contingent upon factors such as whether the group could become more 'outward looking' and overcome the deep internal divisions. To begin with, it would also be necessary for individual vice-chancellors to win the backing of their governing councils, and be nominated as the institution's representative. The fact that this issue even arose as a matter

of concern – by a Go8 member – leading up to the formation of the new body caused another VC to express with exasperation: ‘If a VC can’t convince his own council that he represent them at the industry forum there is something wrong’ (VC5).

Most revealing were the responses made in relation to lobbying strategies and tactics. The VCs were predominantly of the view that clearly written well argued presentations, and individual lobbying of ministers and departmental officers, were the most productive approaches. This contrasted sharply with the ideas of policy actors, all of whom invariably saw the VCs as collectively lacking the essential skills needed ‘to network’. This point was reinforced by analysis of the text that showed that the vice-chancellors predominantly spoke in terms of ‘cooperation’. For instance, they were proud of the way the group had worked cooperatively with students to bring to public attention the problem of student poverty. What was largely absent from their language was any reference to ideas associated with developing coalitions and networks. This was in stark contrast to the discourse of the policy actors who regularly referred to the need for ‘mobilising support’, ‘building coalitions’ and ‘consolidating networks’. As one policy actor observed, each year the Go8 secretariat has hosted a series of discussions for key higher education lobby groups, students and staff unions, to coincide with the first week of Federal Parliament. But the VCs have provided little support:

Only on one occasion was a vice-chancellor present...Most policy actors see the value in networking and building on common strengths, but the AVCC has not done this, with perhaps the exception of Derek Schreuder. But generally they are not effective making links beyond their own sector (PA4).

The vice-chancellors were also generally averse to the idea that the group should take a stronger stand politically, such as supporting protests, in order to voice opposition to government attacks on higher education. One summed up their position: ‘like it or not we (universities) are public institutions. Like it or not there is a limit on what universities and their councils can do; you can’t break the law’ (VC6). Several VCs noted that from the late 1990s, as conditions across the sector were deteriorating, the group had begun dabbling in new lobbying techniques, such as running a campaign of newspaper advertisements in the lead up to the 1998 election. An expert ‘insider’ from the Federal Liberal Party (Andrew Robb) had also been consulted on tactics. However, the outcomes from these efforts were

mixed. In general, the ATN and unaligned members were more likely to reason that the lobby had often proven to be ineffective due to a lack of unity; however, there was also a commonly held view that the failings of the AVCC could be attributed to a ‘lack of interest in higher education within government’ (VC2), and there was some feeling that there was little prospect of this changing, ‘even with a change of government’ (VC6).

In the free flowing segments of the interviews, the vice-chancellors predominantly argued narrowly within the terms of the binary hypothesis for political failure. Most leaned towards the ‘insurmountable odds’ case, though all acknowledged to varying degrees that the counter proposition of ‘incompetence’ had some validity, at least when framed in terms of a ‘lack of consensus’. Few drew upon competing hypotheses, though members of the less dominant groupings were much more likely to do so. As mentioned earlier, one (VC5) emphasised the lack of skill and corporate experience among the group. Another (VC3), a long-standing vice-chancellor, offered a reflective account of how the ‘game had changed’, and how the former policy making regime had collapsed since the demise of CTEC. These shifts in the political landscape were, however, uppermost in the minds of policy actors. In this respect, most saw the VCs as weak at advocacy, and this was attributed variously to their inability to move beyond the ‘departmental frame’ and their own sense of academic importance. As a result, the group often misread the political game:

They rely too much on DEST and government generally...They think they are on the inside, and they are prepared to say ‘yes’ to things because they think they will find favour...For 30 pieces of silver they did what they were told (PA2).

On the other hand, when it came to the art of negotiating with key bureaucrats and taking their case ‘to the hill’ they often displayed a lack of political acuity. They have a ‘tendency to ruffle feathers unnecessarily, with smart a... comments’(PA3).

The responses by the vice-chancellors become significant when considered against the experiences of the US lobby groups. Even though there are underlying structural differences between the American and Australian systems, there is also convergence between the two, including a common shift towards the market (*Introduction*, 9, 19). However, for the US, the archetypal market-based system, this represents a shift in emphasis brought about by a series of ‘piecemeal’ changes by Congress and the executive (Slaughter & Leslie 1997, 44). This was followed by individual state action, and

intervention, rather than a systemic implementation from the top-down, as occurred in Britain and Australia. Nonetheless, the US has faced the very same kinds of problems experienced elsewhere, due to the intervention of politics into academic affairs, and the intrusion of the markets causing ‘creeping inequality, and loss of tradition’ (Altbach 1980, 13). Intensification of this process from the 1980s has sharpened the decline in access and equity (Bowen et al 2006, 163) and stimulated interest group activity.

Little attention has been given to the comparative politics of higher education, and it is only in the last decade that this field has begun to gain momentum in the US (McLendon & Hearn 2003, 3-11). In spite of the obvious differences between the two states, there are clear similarities between the evolution of Australian interest group politics and those of the US. The first US associations for higher learning began to form in the late 1800s. However, what came to be regarded as the peak body, the American Council on Education, formed in 1918 (ACE 2007, online), around the same time as the AVCC. Universities in the US had only very sporadic involvement in the political process, at least till the immediate post-war when the institutions jointly resisted the passing of the Servicemen’s Readjustment Act of 1944, commonly known as the G.I. bill. They feared that it would open the floodgates to unqualified students (Cook 1998, 25). The institutions lost the fight, and the G.I. bill proved a great success, bringing wide participation by ordinary citizens and the ‘articulation of political voice by a broad cross section of the populace’ (Mettler 2005, 3-5), giving substance to the Jeffersonian ideal and post-war democratisation. These events are in sharp contrast to the inability of the Australian Commonwealth to use its defence powers to regulate student numbers, for many of the same reasons pursued by the US Congress.

As was the case in Australia, in the post-war period, the higher education lobby in the US enjoyed privileged access. It could be the ‘worst lobby in Washington’ yet still fare well (Cook 1998, 26). During the Cold War, funding flowed and the sector grew, but this changed amidst the turmoil of the 1960s. The lobby faced its biggest challenge after the G.I. bill, and an even bigger defeat, with amendments to the Higher Education Act of 1965. These moved to direct what was a growing amount of federal aid directly to students, rather than to institutions. The lobby had failed to influence policy in the three critical years of debate, from 1969, and this led to a shake-up and a turnabout for the lobby (Cook 1998, 26; Dunn 2003, 68). Significantly, advice on the act had come from within the US

Senate, and was directly counter to the advice coming from professional higher education officials (Cook 1998, 27; Dunn 2003, 68-70; Hannah 1996, 499), which indicates that the higher education policy process was still evolving incrementally (Wolanin & Gladiex 1976 cited by Hannah 1996, 498-9).

After much hand wringing, reporting and reviewing, the lobby became more assertive and began to rely more on internal communications and analysis for its strategies. It also recognised the need for unity and this all proved useful when confronting the new Republican era of Reagan and Bush whose scepticism towards higher education was reinforced by pressure through the 1980s to rein in the federal deficit. In the 1990s, state jurisdictions increasingly became a focus for higher education politics, due to the new demands for accountability and a shift in attitudes that questioned the public gains over the private benefits of post-secondary education. This occurred during ongoing scandal and controversy on campuses, research fraud, curriculum debates, loan abuses and financial defaults that created a ‘credibility gap’ for higher education (Hannah 1996, 512). At the same time, debates over the imposition of performance and accountability measures by state legislatures led to colleges and universities to become more ‘sophisticated in their effort to influence political processes’ (McLendon 2003, 6). At the federal level, in spite of moves by Reagan and Bush for deep cuts to the higher education budget, Congress invariably appropriated more funds than the administration requested, and legislated to strengthen the independent financial base of universities, with the passing and amendment of the Bayh-Dole Act between 1980 and 1986. Slaughter and Rhoades attribute the ‘remarkable success’ of the science lobby, universities included, to stable political coalitions and an expansion of ‘bipartisan competitiveness’ that brought a resource shift towards civilian R&D away from defence (2005, 565), largely due to the academic science community’s ability to realign basic science programs with national economic priorities.

From the late 1980s, ACE had taken a lead role in bringing about greater cohesion across the wider lobby. It chaired the group dubbed ‘The Brethren’, comprising the six big associations², and also led a series of task forces to develop proposals for the 1992

² The ‘Big Six’ are: The American Council on Education (ACE), the Association of American Universities (AAU), the National Association of State Universities and Land-Grant Colleges (NASULGC), the National Association of Independent Colleges and Universities (NAICU), the American Association of State Colleges and Universities (AASCU), and the American Association of Community Colleges (AACC).

reauthorisation. The task forces operated as the core for a much broader set of college and university administrative groups, known collectively by their address at 'One Dupont Circle'. Some participants felt the community suffered a major setback with the reauthorisation, which led to higher education being converted from a 'social good to a consumer product', but the negotiation process provided valuable lessons about the new political environment to be confronted (Hannah 1996, 523). By the mid 1990s, threatened again by funding cuts, the sector had developed a new mode of operating, including a set of sophisticated 'guerrilla tactics', the key to which was the formation of ad hoc coalitions, brought together from across the sector, from presidential groups to those representing students. Without the costs of overheads, staff and meeting places, the coalitions proved to be quick on their feet, and were able to make use of a complete armoury of lobbying tactics from grass roots protests and targeted lobbying of officials through to awareness raising by advertising, media management and conferences, very often relying on the communication and networking skills of the students. When ad hoc coalitions formed to lobby the 104 Congress, the sector could be quickly mobilised around a single issue with the presidential associations providing the generals and students as the foot soldiers (Cook 1998, 149, 150-2). This was also the first time that professional lobbying techniques were fully applied and utilised as necessary, and this became the new mode of operations, changing the way higher education policy was shaped in Washington. From the mid 1990s, single-issue coalition formation across the science and higher education lobby was becoming the norm.

While there are some signs of moves towards the use of sector-wide coalitions in the science and higher education lobby in Australia, this is not standard practice. The emergence of FASTS and CHASS represent a new structural form through which new networks and coalitions that seek to muster a wide base of support have been made possible. Broader based single-issue campaigns do not occur so routinely, nor with the same level of mobilisation that became evident in the US from the mid 1990s. A critical factor is the lack of unity among the VC's group as it not only provides a key link between the higher education sector and government, it is also one group with the potential to provide leadership to bring about wider mobilisation, as occurred in the US.

As theory suggests, however, within federated structures, cohesion is likely to be a problem, especially when the size of the various members vary. In the US, the need for cohesion across the institutional associations was identified at a relatively early stage, and

ways of overcoming the problem were developed by the mid 1980s. As the US sector is so much larger than in Australia, the differences between individual members might not have proven such an obstacle to revising the group's operations. At any rate, this allowed the ACE to spearhead the sector-wide lobbying of Congress, by using its standing to enhance cohesion and bring about wide mobilisation. Meanwhile, in Australia, the inherent structural weakness of the AVCC continued to be a problem as the group was never able to overcome deep differences regarding the central aims and purposes of the lobby. In turn, this meant that the voice representing the larger and more powerful institutions, the Go8 and IRU, continued to dominate while fundamental change towards a wider collaboration and engagement across the sector was resisted, even though 'the game had changed'. The predisposition of the VCs was to stay with the tactics that they knew rather than venture into a new world of 'networks' and 'ad hoc coalitions'. In many respects, the performance by the Australian VCs suggests that the advice offered 100 years ago might still have relevance:

You think (do you not?) that you have only to state a reasonable case, and people must listen to reason and act upon it at once...but has it occurred to you that nothing is ever done until every one is convinced that it ought to be done. (Cornford 1908, 2)

Conclusion

Australian higher education suffers what may be the best but also the worst of all worlds. The sector's rapid expansion and the international success of its exports can be attributed to the haste with which the US market model was imposed from the late 1980s. Essentially, this meant that the virtues, and great appeal, of its British academic heritage could be packaged, marketed and sold into a growing Asian export market. But what made this possible was the speed and thoroughness with which the process of radical reform could be imposed on the system. This was a direct outcome of what might be described as 'post-colonial corporatism' at work, and in this way, Australian higher education also resembles a Continental state system. This conglomeration of attributes came together to bring dramatic change and expansion, along with export success for Australian higher education. But this also created instabilities and tensions within the system, leading to a new set of problems.

Australia underwent a significant shift towards the adoption of aspects of a classic ‘weak state’ US style higher education model, where market competition and political advocacy are key features of the system’s integrity and equilibrium. However, it carried into this the heavy infrastructural baggage of a ‘strong state’ in which political advocacy was much less part of the political institutional culture, and much less a feature of the policy process. This was exacerbated by increasing state autonomy – as policymaking for the sector became centralised, which then further diminished the scope for advocacy, creating a classic principal-agent dilemma: as policymaking became centered in Canberra, the sector’s leadership was much less able to play one governing authority off against the other, as could be done within a more diverse federal arrangements.

The problems this scenario created, at the level of advocacy and policymaking, are explained by public choice theory. Within the former corporatist mode of policymaking, the composition and size of the higher education lobby was not critical; the group operated within a setting of privileged access, and the vice-chancellors represented a homogenous group. However, events then conspired at two levels to radically alter this, when from the late 1980s, the group suddenly became more heterogenous, coinciding with a dramatic shift in the macro-political landscape. Initially, politics initially became more intensely corporatised, and this consolidated the corporatist mode in which higher education functions. From the mid 1990s, the environment shifted back toward pressure pluralism, though elements, or at least ‘key levers and structures’ associated with higher education, remained more corporatist in nature. The ‘institutional stickiness’ of higher education, as an area of former state responsibility, meant that for all intents and purposes, it was still embedded within a corporatist model, even though a new era of market liberalism and adversarial politics had dawned. From the viewpoint of the vice-chancellors’ lobby, the transformations taking place did not spark strong imperatives for major change. After all, it retained what appeared to be a certain level of privileged access as the recognised ‘peak body’, but this came with the less quantifiable – and less immediately apparent – cost of foregoing the right to play power politics. It also came with the associated risk of the group becoming increasingly disengaged from the broader academic community. The group had been on the ‘inside’ and when the political setting changed, unlike their American ‘Brethren’, it did not so readily make the transition to the ‘outside’.

Broader conclusions can be drawn from this analysis, relating to the way in which this examination of academic politics brings to the surface the underlying contours of political influences, and deep structures that define ‘the state’. This goes to one of the theoretical claims of this thesis that the academy and the state are structurally interdependent. This suggests that whatever can be revealed about this relationship might also provide some corresponding insights into the state. In this respect, the experience of the vice-chancellors’ lobby has illuminated in vivid detail the way in which the political landscape in Australia has been transformed and the direction of that transformation. It has also highlighted some of the main fractures and stresses that were caused, altogether pointing to the nature of the tectonic shift that took place.

A broad outline of those changes was revealed in Case Study 2, and from that ‘meso’ level view and the related empirical evidence, it could be seen that the academy was in the process of being torn asunder, at least politically. There is some merit in this argument, in part because it helped to refine and frame further questioning as to precisely how was this taking place. Why was it that the academy was allowing itself to become so politically enfeebled, to a point that was counter-productive and defied logic? What were the forces at work? Some answers to these questions were found in the way in which the momentum – or ‘institutional stickiness’ – of the surrounding political structures, the habits, and the mental outlook of the group failed to respond to radical change. These structures and routines make up the material substance of those explanatory variables that have been described in more abstract terms as *reinforcing processes* that can be *formative* and *configurative*. That is, these are the mechanisms through which the past presses down on the present in the process of shaping the future. In this particular context, when the politics of higher education became *reactive* at the macro level, the momentum of the past, the baggage of colonial socialism, the inefficiencies of federalism, and the constraints of human skill and resources to adapt to sudden change, all had some bearing, causing a failure in higher education advocacy.

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Chapter VII

Old Dilemmas and New Frontiers

Introduction

Changing conceptions of state power in the backwash from globalisation and the transformation of intellectual authority are together altering the balance of power relations between higher learning and national politics. As academic identity undergoes reconstruction, the precise way in which higher learning can come to embody a renewed civil purpose demands revision. This is complicated by the suggestion that globalisation has had a binary effect, causing a diminution in state power in some respects, but also extending and altering the scope of state power by transforming the nature of the state (Weiss 1998; Levy 2006; Pierson & Skocpol 2007), as confirmed by the previous Case Studies. This suggests that change is likely to be manifest by a shift in the focus and modes through which the state re-accumulates power in the global era.

The proposition here is that this process is likely to implicate the university, perhaps more so than any other social institution, because of its formative and configurative function, as previously elaborated upon. As a consequence, the university can be seen as a critical variable in the reconstruction and renewal of citizenship within the revised global context of a transformed state. The discussion to this point has reaffirmed that the function of the university is most clearly delineated in reference to the state; the two are inextricably bound in a dialectic partnership. This was a feature and a consequence of state formation, and was central to the process of nation building. It is reflected in national political styles, the characteristics of which relate to the nature of relations between higher learning and the state. The emergence of the networked university, as the most recent elaboration of the academy, is likely, therefore, to become the main stage on which new conceptions of state power and renewed notions of citizenship can emerge, as discussed in Case Study 1. As an organisational form, the networked university is more heterogeneous than the ordered constellation of higher learning entities born out of early modernity, representing an intricate web of entities linked by communications technology (Chapter III, *Introduction*).

The aspirations of the networked university are that it should meet the strategic demands of the nation state: serving the needs of a highly mobile international population of students, providing much of the backbone for the vast enterprise of global science, and

helping to build the global ‘knowledge economy’. These goals are often driven by intense domestic and international competition, and this is being regulated by evaluative quality measures and global performance rankings (Marginson 2007). At one level, the university is being extended by its much wider engagement at the periphery. At another level, the circumstances surrounding the institution have been altered beyond the former constraints of academic professionalism and state policy. Forces now directing and shaping the institution are increasingly based upon external quantitative performance measures that are more globally uniform and generic. It is in this qualified sense that it can be said that the university is becoming more ‘global’.

Section A

Impacts of Globalism

The key impact of globalisation is that priority is now, more than ever before, given to knowledge commodities that are most easily integrated into global markets. As previously shown, these usually relate to the physical sciences and vocational disciplines, such as law, economics, and business (Case Study 1, 157), typically at the expense of pursuits that support national cultural and social welfare functions in the humanities and social sciences (Neave 2001, 53). The extent to which these latter disciplines are incorporated into research and teaching therefore becomes discretionary, dependent upon the wealth and prestige of the institution, its mission, and the interests and demands of local or regional stakeholders. Conversely, in this globally competitive environment, the wealthiest and most prestigious institutions are also better placed to negotiate the terms of their academic engagement, protect their core missions, and create market strategies that build on their reputation. This may relate to a tradition of fostering informed citizenship and social responsibility, or some other loosely defined notion of excellence, depending upon their goals and market position. For the majority of others, however, their civil role is much less easy to define, more open to chance and in danger of being determined externally.

The pressures of globalism are mostly conducted to the university through the state, a consequence of which is that higher learning becomes wrapped in strategic importance, and central to national interest, as shown (Case Study 1, *Context*). At the same time, the social

purpose of the academic profession is undergoing revision due to changing patterns of social engagement (Henkel 2005). What this means is that conventional notions of academic autonomy, intellectual freedom and self-organisation can no longer be taken as a given, to be broadly defined and defended in terms of disciplinary procedures and boundaries. In this 'post-academic' era (Chapter III, Sect. A), these conventions are contested, negotiable and open to redefinition as the lines of demarcation between academic pursuits and the standard work practices in the knowledge economy overlap and merge. Moreover, conventional notions of scientific objectivity – already under question and some suspicion in light of post-modern thought – are being revised as science and scholarship spread themselves out, and become commercially engaged, across a wider frontier. A common denominator across this front is the role of the manager, and the imperatives of measurable 'performance'. The move towards a more corporate and instrumental managerial style of university administration might not, as part of a broad social context, necessarily conflict entirely with the social and civil agenda of higher learning. As has been argued (Chapters II & III), instrumental rationality holds the potential to shape and extend human endeavour, thereby making possible human freedom and liberation while also increasing the potential for inhibition and constraint. In this respect, the new corporate environment can have the dual effect of consolidating the power and prestige of institutions in the upper echelons but making life more uncertain for others. This brings the inherent risk that the overall mission of the university is likely to be diluted and become fragmented. The point of balance in this equation is the vigour with which core academic values and traditions are incorporated within new hybrid forms of corporate-collegial organisation (Reed 2002, 175; Clark 2004, 34-6) that both accommodate the intrusion of state and corporate power, yet reflect scholarly values and the civil purposes of higher learning. This is reliant upon the institutional and national context, and the scope these provide for academic autonomy.

Autonomy must be considered in the context of the continuing battle over the legitimating powers of the university. This is the central defining struggle facing the academy, and it has deep historical roots. It is directly concerned with the conditions of institutional decision-making that govern intellectual freedoms, the setting of curricula and research agendas, levels of control over admissions and certification, and issues of resources and standards. Under the supervisory role of the state, this struggle has taken place within a very limited scope for resistance (Gerbod 2004, 83-100). Furthermore, in the past, it was not possible to easily disaggregate – and to externally monitor and control – each of these

separate elements that altogether contribute to academic self-regulation. This has changed substantially with the steady introduction of a wide array of sophisticated policy tools, often aided by new information technology, to monitor and control system throughputs. As a result, all manner of information is now available, from detailed student profiles through to the publication success rates of individual researchers and groups, all of which can be used as policy levers and financial prods, as was shown in Case Study 2, to manage the use of resources, and to equip managers and political leaders with pressure points to control academic behaviour.

In the past, different notions of academic autonomy were relatively clear-cut: the state either subsumed the academy as part of the civil service, or provided it with substantive independence. This is much less the case as large grey areas between these two poles have emerged, mostly due to social and technological change and the changing nature and scope of state power. Institutional and academic autonomy now occur within a complicated matrix of state-university relations. However, the meaning and substance of academic autonomy has become much more urgent and pressing as a concern. In conventional terms, scholarly cooperation with the state – which serves to legitimate state power – has been largely reliant upon the capacity of the academic community to withdraw its cooperation if the state is seen to be ‘unjust or to be badly representing the interests of civil society’ (Smart 2002, 47). The diffusion of academic knowledge and the wider contestability of academic freedom, however, makes academic consensus on these matters more difficult to achieve. Collective condemnation of an intrusive state is now only ever a remote possibility. Academic boycotts are rare and direct action, such as disbanding the university altogether, in the fashion of the students of Paris in the thirteenth century (Chapter 1, Sect. C), is almost unthinkable.

When the political power of the academy as a whole declines, so do fundamental academic values. What is lost is the capacity to confront orthodoxy and dogma, and the choice of ‘whether to side with the weaker, the less well represented, the forgotten or ignored, or to side with the more powerful’ (Said cited in Jacoby 1997, 35). At the same time, what is significant is that this erosion in values is a systemic problem in that it relates to the way in which higher education ‘systems’ are managed as part of the political process. However, as Case Study 3 shows, this can also provide the keys to winning autonomy, in that it offers a central focus for political advocacy and resistance, but demands very strategic ways of mobilising that bring together the entire academic community.

The argument here is that meaningful resistance can only operate once the transformation of the state and the wholesale revision of what constitutes knowledge are duly acknowledged. As previously outlined (Chapter III, Sect. A) the rational acquisition of knowledge and the embrace of technology intersect in complex ways with the accumulation and exercise of political power. The idea of science being wholly ‘socially constructed’ is overstretched while the social and political dimensions of science demand proper recognition. The social and political context of scientific theories have a dimension of political power associated with broadly accepted paradigms, conceptual schemes, general beliefs and myths. These undergo sweeping change and revision, along with social trends. Another, more tangible dimension, exists in relation to the practice of laboratory science and the routines and procedures these generate as they diffuse out of the laboratory into the broader social environment, serving to make concrete particular ideas and forms of organisation (Rouse 1987). In the first sense, science operates most powerfully as a metaphor, and in the other, science becomes the iron bars of instrumental reason, physically embodied in the material world, governing and constraining human action, or becoming the pillars of human potential and achievement. In this respect, social and political influences on science – and of science – need clearer articulation and recognition before it is possible to realise the political power, and social responsibility, of the university to arrive at a more realistic conception of the political dynamics that shape relations between the university and the state.

This suggests that a revision of academic autonomy needs to consider much more than matters of administration, resources and loosely conceived notions of intellectual freedom, but examine the way in which ideas are formed and elaborated upon, in reference to the wider system of learning and knowledge within the academy. It is through these academic processes that ‘legislative codes’ (Chapter III, Sect. F) are developed and appraised, whether these are social, economic and policy ‘controls of the self’ or ‘hard’ technologies that shape and govern urban systems. The manner in which these processes are conducted and the way in which various interests are represented demands closer attention as part of a revised approach to academic accountability, autonomy and responsibility. The broader the scope of this academic discourse, and the broader the context of decision-making that directs, shapes and prioritises research, the more robust will be the democratisation of ideas and the technologies that increasingly govern human affairs.

Section B

Denying State Power

A thread running through debates over the fate of higher education is the problem of growing complexity associated with the transformation of intellectual knowledge and the changing conceptions of the state due to rising globalism, the context of which is provided in Chapter III and the previous Case Studies. The assumed dissolution of the nation state is expected to undermine the role of the university as a civil institution, throwing it open to the vagaries of a more heterogeneous, negotiable and chaotic global order. As the rate of new knowledge expands, with more unpredictable results, the university is also becoming more widely integrated with the outside world, subject to greater external influence and, as a result, less able to determine the direction of its own activities. The university has become more important to economic life but less in control of its own destiny. As a consequence, the university finds itself in an unusual position: it faces larger audiences of students, clients, partners and so on, which suggests some vigour and a clear purpose, but this is not necessarily the case. As universities are required to become closely engaged at the periphery, their boundaries with the wider world are merging. The growth in external connections makes the preservation of internal relations, common languages and shared values more difficult. This trend often sets alarm bells ringing, due to the fear that these trends will render the university completely ‘centreless’.

A more measured response is the observation based on research that academic identity is simply undergoing reconstruction. Notions of academic freedom, and traditions of scholarship, are no longer taken as given but are negotiated in the context of wider engagement with various stakeholders (Henkel 2005, 162-3). In this view, the university as a whole may endure less cohesion, and less scope for internal discourse, but this can be measured against the wider scope for public discourse and opportunities for reinvention and innovation. This leaves open the question, and common concern, of what prevents fragmentation; that is, what defines the core mission of the university in the wider networked environment? The endurance of scholarly ambition, and the persistence of the Socratic tradition, it has been argued

(Nassbaum 1997, 34), may provide a large part of the answer. But this can only occur when these traditions survive and prosper.

These concerns are most acute in Australia and Britain, where policy change has been most dramatic, but they are also emerging in Continental Europe, as countries there embrace market 'reform' to varying degrees. Even though the higher education system of the US is seen as a model, it also faces similar and often equally damning critiques. For instance, Readings decries the modern US university as lacking an ethical centre, and dismisses the culture of 'excellence' as a substitute for values; used as an 'integrating principle', even though 'no one knows what excellence is but everyone has his or her own idea of what it is' (1996, 32-3). 'Excellence draws one boundary: the boundary that protects the unrestricted power of the bureaucracy' allowing the university to be understood solely in terms of the structure of corporate administration, permitting exhaustive accounting, placing the entire university inside a Panopticon (1996, 29). Much current pessimism surrounding debates over higher education relate to the ending of the Cold War, the collapse of communism, the pace and spread of globalisation, and the supposed decline of the nation state. Coinciding with the decline in academic authority, and a loss of faith in science, is a decline in ideology because of what Readings argues is the lack of purpose for the university in upholding the values of the West (1996, 12).

Driving this critique is the idea that globalism necessarily undermines the rationale for the university. Readings notes that the modern university grew up as the 'ideological wing of the nation state', and the notions of national culture and the nation state arose simultaneously, but both ceased to be essential to an 'increasingly transnational global economy' (1996, 12). The growing influence of globalisation is a dominant feature of higher education analysis, and the putative decline in the power of the state provides much of the context and framework (Marginson & Rhoades 2002; Enders & Fulton 2002). This underlies the assumed loss of traditional identity and the civil purpose of the university (Smith & Webster 1998; Hayes & Wynward, 2002; Barnett 2003). While Readings and others are very often correct in arguing for an ideological function of the university, this approach tends to ignore the more enduring aspects of higher learning and falls victim to what Weiss describes as the 'phenomenon of state denial'. Denying the power of the state aligns neatly with rhetorical and often propagandist notions of 'small government' and the 'non-

interventionist' state, and there is empirical evidence to support this (Case Study 2,182-3). In the social sciences, the extent to which these ideas have been accepted has fluctuated over time, but their acceptance has grown in the post Cold War era, fuelled by the idea of an emergent global civil society (Weiss 1995, 2-4) and the assumed effect this has on diminished state power. The roots of state power denial can be traced to the middle of the last century in Britain; the phenomenon initially emerging in relation to the idea of the 'minimalist state', behind which could be found an 'ancient network of aristocratic privilege', as discussed earlier (Chapter II 89-90). When the non-interventionist New Right emerged in Britain under Thatcher, in order to set free the economy, it set out to restore central authority and simultaneously moved to 'roll back and roll forward' the state, being non-interventionist and decentralising in some areas of policy, and highly interventionist and centralised in others. This paradox arises from two strands of liberalism: calls for a freer and more open economy, and an interest in restoring social and political authority throughout society (Gamble 1988, 28). This dualism can create the institutional context, and latent potential, for the political regime to shift between extremes, from democratic liberalism to authoritarian conservatism, as Case Study 3 clearly demonstrates in relation to Australia.

Section C

The State in Transformation

Rather than causing a diminution of state power, the spread of global markets and communication is transforming the state, often extending its reach and control in a fashion not immediately obvious, but in subtle ways and across a broad front, as shown in Case Study 2. The global economy alters the scope for the state to act in some areas, such as those related to the control of monetary policy. States may also face more complex security issues and often claim to be less able to guarantee the provision of welfare and services due to rising demand. Nonetheless, the state remains the primary unit for law making and enjoys a centrality 'because of [its] relationship to territory and population' (Hirst & Thompson 1999, 275). This puts the state in a firm position to capitalise on the 'enabling' aspects of globalisation, arising from a heightened sense of 'insecurity among broad segments of the population', which tends to generate demand for social protection. A second enabling aspect is the valorisation of business access to national innovation services and structures that replace the former emphasis on industry policy with an elaborate network of incentives and

advisory schemes, aimed at supporting international industrial competitiveness and innovation, which are embedded in policy. A third enabling aspect, important in the context of universities, is the need for reforms, regulatory controls and restructuring as various sectors are opened to international competition, and this can include meeting the rising demands for new infrastructure and skilled labour (Weiss 2003, 15-8). As discussed earlier, Australia has responded to this by 'steering' universities towards more vocational courses, setting economic goals in regard to teaching and research, and taking a large role in the promotion and facilitation of international education exports, more so in fact than any other nation.

Globalisation can facilitate the transformation of the state in ways that open new avenues of policy and regulatory intervention, which in turn changes the boundary conditions that exist in the struggle between institutions as they seek to gain legitimacy and authority. As the state loses the ability to intervene directly as a 'governing' power, it relies more heavily on its role as the 'supreme source of legitimacy' to delegate authority (Hirst & Thompson 1996, 194) and employs indirect and intangible measures of norm creation, using marketing and the media. The state becomes both more interventionist yet disengaged as it adopts a wider array of regulatory controls and 'steering' mechanisms. The university has been an ideal candidate for absorption into the web of disengaged regulatory control because it is an institution that is moving to the centre of economic production, but it also seeks autonomy. The relationship between the academy and the state, already deeply ambiguous, simply becomes more so. However, this also depends where the academy is located institutionally. In more centralised states, such as France, where higher education is part of the state apparatus, the reach of state regulatory power over universities, in terms of instigating reforms, is often weak (Musselin 1999, 47-61). This contradiction arises because in the absence of institutional autonomy, it is usually the case that academic autonomy is greater, illustrating how each system tends to find equilibrium. By the same token, in some market-oriented states, education is an area of some state responsibility so that the state is able to easily extend and accumulate power in this area with apparent legitimacy.

Movement towards a market model in higher education often brings greater efficiency but at the cost of an erosion of academic identity and integrity, which is most evident by the regular lapses in academic professionalism, scientific scandals and controversy over standards. As a result, there are often expressed concerns by commentators and analysts that

the university is becoming a contradiction, whereby the culture of the academy is overtaken by managerialism while the chief purpose of the institution is captured and controlled to meet the utilitarian demands of corporatism. These concerns are very much at the centre of public debate (Saunders 2006) though the exact identity of the ‘captors’ is not always readily apparent. The perceived diminution in the power of the nation state means that it is less likely to be held to blame. This is reinforced by a growing interest in convergent ‘global trends’ as both a cause for the structural impacts on higher education policy (Enders & Fulton 2002; King 2004) and the loss of a motivating theme of the university (Smith & Webster 1998; Hayes & Wynward 2002; Barnett 2003). In this way, the idea, or rather the ‘myth’, of globalisation provides a distraction allowing the state’s intrusion into academia.

The civil aspirations attached to globalisation have steadily diminished – or at best plateaued – along with the prospects of there emerging a coherent global civil ‘society’. This is due to the fact that the internationalisation of capital has only tentatively prompted a comparable globalisation of regulation and governance. This underlines the argument made at the outset (Chapter 1, Sect. A) that while economic circumstances can influence social organisation, there is ‘no spontaneous symmetry between economic and institutional developments’ (Went 2001/2, 481-2). There has been much greater success in initiatives that facilitate ‘trade, finance and production’ than those that bring the globalisation of social rights, and which might ensure the provision of public goods, democracy and environmental norms (Went 2005, 378). In other words, the global civil society that was once expected to emerge from the cultural and intellectual ferment of the 1960s and 1970s, discussed earlier, has only been realised in a very limited form: a general awareness of global trends and a fear of ‘globalism’ that often inspires social action and resistance. It has not generated a ‘global public sphere’ operating as a coherent society within widely accepted norms. International non-government organisations (NGOs) proliferate and take up global causes, but this does not occur systematically as there is an absence of shared ideologies, and defining ideas, of the kind that were discussed in relation to the emergence of the public sphere in the nineteenth century. That was a reaction and a response to the growing power of the state and served to shape and redefine state power. It was facilitated by higher learning, with its links through society, to form a coherent front of resistance to counter state power. The idea of global civil society, on the other hand, reflects broad sentiments that respond to various phenomena, such as transnational corporatism and global environmental degradation. In the absence of a global state, these responses are likely to remain fragmented.

Section D

New Modes of State Power

While the state remains the primary vehicle for expressing social rights, global influences have, nonetheless, transformed the scope and nature of state power, particularly in the way power is expressed. This represents a shift in the state's re-accumulation of power as it has steadily moved away from the direct ownership and management of industry and resources, and the provision of services, towards the business of being a coordinating body representing the height of authority. Through privatisation and deregulation, the state can appear to assume less responsibility for the mechanics of production and supply. In the process, however, its interventions and controls become disengaged, and increasing emphasis is given over to the 'pedagogical, corrective, and ideological' (Gorski quoted in Lovemen 2005, 1652). The latent capacity for this transformation was shown earlier in relation to the spread of imperialism when the state was not only instrumental in helping to extend the reach of capital, but projected into the international arena 'national mores, ideal and values' (Chapter III). This latest re-conception of state power, according to Loveman, is fully compatible with a neo-Weberian concept of the state that recognises that cultural processes are centrally involved in the legitimate use of violence as this 'yokes cultural and material power together from the beginning' (2005, 1653). Castells' reading of this trend is that it is a reaction and a response to 'networking and flexibility':

When the world becomes too large to control, social actors aim to shrink it back to their size and reach. When networks dissolve time and space, people anchor themselves in places, and recall their historic memory. (Castells 2004, 69)

This helps to explain why some political leaders and states embrace the populist tactics of cultural nationalism, as discussed in Case Study 3 (203-4), as this seeks to reaffirm their centrality in an increasingly diffuse, networked and disengaged political environment. As the state extends beyond the concerns of national identity, national interest, and security towards cultural hegemony, it relies more heavily on norm setting through the use of information and communications, to consolidate its symbolic presence. This shift was first observed (Nye 1990) in the international realm as the embrace of 'soft power'. States, confronted by growing interdependency and social mobilisation across the world, discovered that the cost of exercising traditional and coercive forms of power excessive. New resources for exercising power were found in multilateral institutions and communication. Also,

information and communication offered an attractive way of exercising power; by setting agendas and creating norms, a state could do what it wanted and get others to do so: 'The ability to affect what other countries want tends to be associated with intangible power resources such as culture, ideology and institutions' (Nye 1990, 166-7). In this context, the US was modernity's quintessential imperial power, with the ability to remain disengaged while creating global hegemony. This was achieved as much through military might as it was through the export of culture and 'free market' ideology, the impact of which has been profound on higher education systems, which to varying degrees took the US as a 'benchmark' (*Introduction*, 9-10; Case Study 3, 207-10). However, in general terms, the balance of this mix of factors may have begun to turn, and this is evident in the shift towards unilateralism, and towards coercion rather than consent' (Harvey 2003, 74-5).

The Foucaultian idea that communication is the political technology of truth, and the means through which the state constructs what is thinkable and what is made real (Simons 2002, 76) is perhaps being realised to some extent. The free press and the media as a whole may have the capacity to challenge and question state authority; however, the state is increasingly able to resist and manage this process. Ezrahi argues (1990, 1996) that this is achieved by the state shifting its focus from 'statecraft' to 'stagecraft' as theatre takes over from the machine as the 'dominant political metaphor'. This is facilitated in a social environment where, as Appadurai argues (1996, 8), the role of human imagination performs the 'quotidian mental work' of society, rather than this being confined to areas such as art, myth and religion. As a consequence, the state is able to fully utilise marketing techniques, as was initially observed in the US (Newman 1999). However, modern liberal states, and particularly Australia (Young 2004), steadily embraced the communicative power of electronic media, to become masterful players, adept at setting and driving media agendas, rather than being passive subjects. The dialectic discourse of democracy now occurs less within parliamentary chambers than within the controlled environment of the media interview. When intellectual knowledge and authority is drawn upon in this arena, it might be expected to arbitrate and mediate, to determine what may be established as 'common sense' and 'reasonable'. However, as shown in Chapter III (112-3), intellectual authority has become diffuse, as the state steers and dominates public discourse, monopolising the terms of debate. Intellectual authority has become less a source of facts, and the basis for setting norms, given that the trend in Anglo-American systems has been towards the state generating its own facts by its own research, and through compliant consultants and think tanks.

Once the myth of declining state power is dispelled, and reflecting on the historic struggle for symbolic power between the state and the university, the main threat to the integrity of the university can be seen to come predominantly from the state itself. The identity of the university, from its earliest inception, is bound to the state because of the rival sibling relations that mark their mutual origins. The important historical point that repeats itself is that when the state manages to centralise power and becomes self-referential, its reliance on the legitimating role of the university declines. The state is then more inclined to use the university as an instrument of political power, and the process of change generates conflict over lines of authority between state and university, particularly in regard to the university's autonomy. Fully acknowledging the transformed nature of state power in current debates over the crises confronting the university better explains how the discourse of corporatism and managerialism becomes the means by which the symbolic power of the university is neutralised and contained. This in turn suggests that reconfiguring the meaning behind that discourse is the primary means by which the university can begin to redefine itself and pursue its mission. It is a task that involves not merely vacating the 'impoverished discourse of managerialism' but 'occupying and renovating a richer discourse' (Luntley 1996, 54).

An error in the postmodernist account of the university crisis, in the face of diminished intellectual authority and the assumed decline of the nation state, is that the blurring of institutional boundaries leaves the mission of the university open to chance in an 'expanding discursive universe' (Barnett 2000, 31-2) and a swirling sea of complexity. The apparent contradiction, that the university can be both a key institution yet without boundaries, and without a lack of moral definition, begins to dissolve when the university is properly defined in relation to the state. The legitimate power of the university resides in its ability to pursue, albeit often unintentionally, its primary civil purpose of seeking knowledge within a practical measure of autonomy. The boundaries of the university are clearly defined and easily highlighted by the very same lines of tension and conflict that exist between the state and the university in pursuing these goals. For example, these lines often present as entrenched orthodoxy that sharply conflicts with the generation and spread of civilising knowledge in the critical tradition, as discussed in relation to Nussbaum below.

State power is increasingly defined by an ability to determine the content and tone of public discourse. As a consequence, the civil role of the university is determined by the degree to which it is able to participate in this conversation. This is contingent upon how state and university interests coincide, and the context of national policy. However, academic autonomy collapses when state power is confused with the instrumental rationality of global corporatism, unless this is shaped to the end purposes of the university. The degree to which the university is an independent variable in civil life, therefore, depends upon the way it is able to influence the dominant discourse to its own ends. This is a function of how the academy operates internally as an institution.

In this regard, higher education faces the dilemma of efficiency versus equity. While the predominantly market-based Anglo-American model shows higher performance levels in terms of routine scientific output and greater financial independence from the state, the Continental state-based system inherently provides greater equity and, in general, shows greater ‘mutuality’ in the policy formation process (Scott & Hood 2004, 82). The implication may be that market-based systems may be more efficient in the shorter-term, but higher education regimes that utilise negotiation may ultimately prove more stable and better incorporate intergenerational interests that preserve academic traditions and are, therefore, likely to demonstrate greater long-term stability. This hypothesis is supported by the fact that some countries in Europe are steadily closing the gap on the leading performance of the US, in terms of publication rates and impact (Herbst 2004, 17). The previous Case Studies support the view that a lack of mutuality and policy coordination can over time lead to the under investment in higher education and a lack of coherence in strategy.

Section E

Key Contradictions

Amid the inconsistencies and uncertainties surrounding the modern mass university, the largest contradiction that goes unrecognised relates to the university’s own level of civil engagement. For an institution purported to be concerned as much with citizenship and social responsibility as higher learning and research, the systematic

erosion of the university's scope for academic democracy is a great paradox. The question is why, within liberal traditions of government where civic mindedness is promoted through programs aimed at the primary and secondary school levels, are these policies so conspicuously absent at the tertiary level? What is even more extraordinary is that while universities have come the full circle, returning to the early medieval principle of user-pays, there has not been a parallel backward shift to the idea of universities being the primary location for organisational experimentation, the test-bed for democratic organisational design (Chapter I, 43), even though there is clear scope and enthusiasm for this role. What has occurred in the interim is that the state, in becoming the chief financial broker in these arrangements, has also managed to systematically subtract this function. The civil purpose of the university is well recognised in political and institutional rhetoric, but this often points to an empty symbolism as the contradictions go unchallenged.

As an evolving civil institution, the university designed itself around this primary purpose, that is, in the Greek tradition of education as the very foundation of civility. The explorative nature of campus life, collegial decision-making, student involvement and activism, and institutional autonomy grew out of traditions formed when the university had greater power to define itself. Through much of civilised history, belonging to a university meant the participation in a certain type of cultural and social life as a precursor to entering civil life, as was discussed in Chapters I & II. As Kumar suggests, this was also a reflection of time spent in extra-curricular activities, and there may be good reason that these should be seen as the 'real heart of university life and the main justification of university existence' (1997, 29). This pursuit of an academic life, within the rich tradition of academic democracy, has practical dimensions, as Molander rightly asserts: democracy requires the art of democratic practice, which (in turn) requires democratic individuals, which again presupposes a democratic form of life. This is a 'hermeneutic and a political circle', given that democracy presupposes 'democratic or proto-democratic practices, and that the pre-understanding of democracy is genuinely practical' (2002, 363-4). It can be said, therefore, that democracy, like freedom, does not occur naturally but needs to be constructed through a series of complex processes.

Democracy relies upon certain constitutive elements, including free speech, which in a similar circular fashion presupposes autonomy. However, academic democracy relies upon - and is in part defined by - a particular type of free speech that distinguishes the university from other civil institutions: the courts, parliament, and even the free press. This difference is the celebrated aim of arguing 'for academic purpose' in that argument may mean, for instance, the pursuit of arguments that might even pose a case against democracy itself, and for totalitarianism. That is, it is important to preserve the freedom to argue against democracy for the very reason that it is possible to learn a lot from opponents who are 'not very democratic in their argumentative practice'. Academic democracy is, therefore, clearly distinguished from political democracy, which for Molander provides a reason why 'academia should not make a politically democratic form of life our most important goal' because 'learning for politics' should not be the sole pursuit of academic life, but something that happens as a consequence, almost after the fact. This does not diminish its virtue: 'I do think that scholarly life, and not least when it involves some rather undemocratic people, is a good training ground for democracy and world citizenship' (Molander 2002, 365). There is an important reminder in this: while engaging in politics may be critical for survival, practising the art of politics is not the primary mission of the university. This is the Socratic dilemma the university will forever face. A political consciousness is the by-product of the free pursuit of ideas and preserving this is the mission of the university, even if it comes at a terrible cost.

Academic democracy is often, therefore, performed in the abstract, away from the real world of politics, yet it carries a particularly heavy burden of 'double democratisation' (Held, 1996, 316-323; Held et al 1999, 450) in that it entails the simultaneous development and reconstruction of the state and civil society. The primary aim of higher learning may be to impart virtues such as tolerance, integrity, truth telling, impartiality, fraternity and the use of critical reason, and these virtues make democratic life and social reproduction possible (Carr & Harnett 1996, 188-9). Drawing upon these virtues and actively participating in the process of academic decision-making provides the necessary skills that enable individuals to control and change the conditions under which they live, and create those same opportunities for future generations. To maintain this capacity, the double democracy of education must entail decision making that avoids the dilemma of producing undemocratic

structures, as might occur where a process of democratic decisions eventuate in undemocratic outcomes.

The decline of the cultural life of the university, and with it the set and stage on which academic democracy is regularly rehearsed, suggests the failure of liberal democratic societies to live up to their self-avowed educational aims of ensuring the rights of future generations. The conflict between the intrusion of corporatism and the university traditions of academic democracy is most evident when decision making is removed from the university community and captured within managerial procedures, the control over which may go back to regulatory processes determined within government. When active communication across the university is replaced by regulatory measures that suppress interdisciplinary discourse, the civil role of the university becomes endangered. However, in practical terms university life is changing radically, and these academic traditions often need to be incorporated into the reinvention of the university, within the new social and organisational fabric of corporatism that now prevails. It is utopianism to imagine reversing the march of instrumentalism, but as has been argued, it is quite possible, through it, to extend human freedoms and liberties. This relies upon experimentation, discovery and invention in order to create new models of negotiation and organisation that integrate new managerial modes of operating that keep alive collegial values and traditions of dispassionate inquiry.

By recognising the expanding power of the state, and the pragmatic mission of human knowledge as superlative human achievement, what comes to the fore is the ongoing and ancient struggle between the university and the state, and much unresolved conflict over which is the primary site for democratic design. In acknowledging this struggle, many of the perceived contradictions concerning the university appear in sharp relief; they relate to the ancient contours of conflict, tension and rivalry that have long existed. Why the art and practice of citizenship and social responsibility are not wholeheartedly promoted in university life may be because this would conflict with the encroaching role of the state. Ideas of civil engagement within the university community may also need revision in the light of a more powerful and influential state, but whose power tends to be disengaged, expressed indirectly, not only by 'steering at distance' mechanisms, but by governing the

direction and tone of discourse in relation to the university, as well as setting the larger agenda for public discourse.

Underlying reasons for the sense of moral crisis within university communities is that long held traditions of university life are not easily extinguished, especially as these are routinely acknowledged and celebrated through ceremony, and in the daily course of academic practice. What might be salvaged from the wreckage of post-modern conceptions of the university are aspects of that tradition in which knowledge primarily has a moral purpose, as suggested by Nussbaum, who offers a strong defence of the Socratic tradition, that the ‘examined life...is the only life worth living’ as a central educational goal for democracy (1997, 34). Nussbaum finds the Socratic tradition alive and well in the mass university, reinterpreted and adapted to address more modern, more multicultural, and more global issues. This is also widely apparent from the way in which concerns over scholarly integrity and democracy routinely arise in the face of institutional change. As the boundaries of the university have been extended and become more porous, as intellectual authority has become more widely contested, and the purpose of the university grown less clear, prescriptions for a renewal of the university’s civil mission, often harking back to a former glorious era, continue to emerge. These provide a clear sign that the social mission of the university is of deep abiding concern, but also highlight fundamental misconceptions about the university’s predicament.

These come in related forms, from a very traditionalist view through to neo-sentimentalist versions. The first is based on the idea of the university as an elite protector of culture and civic virtue (Maskall & Robinson 2001) in which salvation for the university is to be found in the strict interpretation of Oakeshott’s vision of separating the university from vocational duties (*Introduction*, 7-8). The implications would entail closing down institutions, or units, with a practical orientation, or transferring their activities to other institutions and returning the university to Coleridge’s ‘clerisy’ of opinion makers (2001, 185). This sentimentalist prescription fully embraces the Oakeshottian ideal of universities being a ‘breathing space’. This school of thought also recognises that universities can no longer be conceived as islands of high culture, mostly because in late modernity, no consensus could be found as to what that might constitute. As Kumar argues, if it is no longer possible to defend this role, it may be possible to defend them as the sites of cultural exploration

and engagement, taking them beyond the formal teaching function, and beyond the control of teachers and administrators as guardians of truth, taste and standards. The distinguishing features of the university would then be found in their informal life, that is, in extra-curricular activities, which need to be seen not as residual but central features of the university. In this view, the university should be defended for 'what it alone can do', and that is the 'attendance and participation in a certain sort of cultural and social life' (Kumar 1997, 29).

Taking these ideas further, it is also often suggested that the university pursue its civil mission by preparing the individual for change. Its main pedagogical task would not be one of transmitting knowledge but promoting forms of citizenship able to negotiate a complex world in which transformational change is a prerequisite. This arises from the notion that at the heart of Western traditions of scholarship is the 'challengeability of fundamental frameworks of comprehension and self understanding' (Barnett 2000, 164). In a global age, the conditions of 'supercomplexity' challenge the cognitive and actual frameworks across society and structure, not only confronting the literate classes but the lifeworld of each individual. By this approach, the university and the issues that concern it need to move towards the centre of public discourse (Smith & Webster 1997; Carr & Hartnett 1996; Scott 2004). Accordingly, in this line of thought, the moral purpose of the university is found in providing the 'glue' which holds otherwise 'disparate knowledge traditions together' (Scott 2004, 444-5) from a range of external pressures, resulting from the wider engagement with society due to the new modes of knowledge production (Chapter III, 113, 129). This suggests that as social and ethical considerations now obtrude increasingly into professional domains, from engineering to medicine, these will feed back into the university through the collaboratively organised production of knowledge.

This line of logic produces what may appear to be the right answer, that the university is primarily an ethical institution with a civil mission, but it does so for what are mostly the wrong reasons. Much of this thinking is predicated on that fact that the politics of globalisation have become a substitute for the traditional politics of the state (Scott 2004, 446) and what this fails to recognise is the lack of a coherent entity in global civil society. In other words, it is not possible to have a global civil mission without a much more coherent global civil institutional framework, or at the very least broadly accepted regimes. As has been argued above, global politics is mostly the projection of state politics into the

international sphere. This is similarly the case with global resistance politics, which is often touted as the basis for global civil society (Scott 2004, 446). Accepting that networks of transnational organisations exist, their actions are mainly directed and governed by states, as the necessary global regimes and structures have not evolved as expected. This is not to suggest that many of the ideas presented by the sentimentalist account should be thrown out, as many of the concerns are valid, especially in regard to the growing complexity and heterogeneity of society, and the impact this has on the production of knowledge and the role of the university. Much of this is clearly being driven by global influences and trends, and these should be duly acknowledged, but not substituted for what is in reality the power politics of the state system.

Section F

Revising Academic Democracy

While in some respects politically naïve, the new sentimentalist approach does more realistically depict many of the conditions confronting the university, through which a new sense of academic democracy may evolve. Perhaps students no longer fit the traditionalist mold of the reformists and activists of the 1960s and 1970s, but this is not to say that they are not still seeking from university a ‘philosophy for life’, as is claimed (Astin cited by McInnis 2002, 178-9). They are more inclined to be mature in age, study by distance, work part time, and are consequently less inclined to engage in campus life, at least in the traditional sense of extra curricular activities. Student advocacy is, therefore, expressed in different forms, in part because it has ‘come indoors’, having put aside the protest placards and come off the streets. The university experience is now considered more in terms of what happens within the institution by ‘negotiated engagement’ (McInnis 2002, 181). This recognises the increasing power of students to shape the design and delivery of the curriculum, given that conceptual frameworks based on traditional career pathways are much less relevant. More fluid work environments within a far more complex world are prompting students to choose and create their own pathways. They are also more likely to negotiate over the flexible means of delivery, fitting in coursework around other commitments. Perhaps this suggests that students are in fact not so much less engaged, but engaged in different ways. Their rights, interests and forms of civil engagement also need to be reconsidered and redefined to reflect the radically-changed circumstances and political landscape they confront, as highlighted in

Case Studies 1 & 3. What this may mean is a revision of notions of collegiality and activism, taking into account that students necessarily spend less time participating in what is traditionally considered to be the institutional life of the university. This is often attributed to ‘democratic fatigue’ (Bergen quoted in Englund 2002, 285) as students place less value on the idea of engaging in university as a place that will shape their lives. However, this may partly reflect broader social trends that influence modes of participation, and these are seen (Putnam 1995) to be part of a general decline in the way individuals invest in traditional forms of social capital. Countertrends suggest that new areas of activism, and interest, relate more to global and individualistic concerns, which may suggest that international student advocacy groups will emerge as a political force.

The spread of academic capitalism and the penetration of corporate models of management mean that universities now represent a wider mix of cultures, both traditional and managerial (Slaughter & Leslie 1997; Marginson & Considine 2000; Macfarlane 2005), threatening the sense of a coherent community. Increasingly competition for resources within the university, and factors such as the casualisation of staff, contribute to ‘atomisation’ and the perceived decline in ‘political literacy’ among members of the university (Macfarlane 2005, 301). In Australia, the embrace of Voluntary Student Unionism (VSU) and federal policies that more directly intervene in determining student numbers, and alter the disciplinary mix within institutions (Duckett 2004, 217) cause fragmentation, reducing the scope for student and academic democratic engagement. This intervention is part of a more thorough erosion of academic power and one aspect of a series of complex events that can lead to the break-up of the academic community, as shown in Case Study 3. Academic power has traditionally revolved around access, examination and certification and the setting of curricular, and these activities are increasingly circumscribed by externally imposed policies, based on quantifiable quality measures and routine audit mechanisms, thereby removing individual academic discretion and participation in decision making.

Growing commercial pressures and performance inhibit academic resistance, civil engagement and academic democracy, especially within less well-resourced institutions. However, there is no intrinsic reason why the new corporate environment cannot be made compatible with the social mission of the university, although this

requires a number of conceptual shifts, the first being to substantially acknowledge – not just in rhetoric - what has best distinguished the university historically as a particular type of corporation, that is, a corporation whose distinctive products relate to citizenship and organisational design. This entails a change from viewing students as ‘clients’ and ‘consumers’ and ‘stakeholders’ (Denman 2005,13-14) to reaffirming their role as key ‘members’ of the academic community. The terms may not be as important as the meaning attached, and the fact is that students ‘belong’ to the academic community, and share central responsibility for carrying the traditions of the university forward, through advocacy and engagement. As ‘informed consumers’ who are also part of an institution, students are also more likely to show greater loyalty and support for the ‘brand’. Taken further, viewed as members, students would be more likely to have a long-term interest in questions of quality and brand survival in recognition of their investment, and engagement with the institution. Boland rightly argues that such an approach acknowledges, celebrates and rewards the civic duty each student performs at university, such as routine activities like course evaluation (2005, 205).

Embracing this attitude would also mean a similar shift away from the view of academics as ‘service providers’, to better acknowledge their *de facto* power and authority in terms of curricula design, the generation of new knowledge, marking and examining, all of which determine the life chances of individuals (Macfarlane 2005, 304). Moreover, moves in this direction entail a much more rigorous defence against regulatory intrusion over those professional responsibilities that embody these powers. From the long-term strategic interest of institutions, viewing students and staff more clearly as active ‘members’ whose role is to preserve and protect the traditions of ‘their’ institution would, therefore, tend sharpen the competitive advantage of each institution. As Baldwin and James point out, in such a mode each institution would need to define itself more carefully, and assess its attributes more thoroughly (2000, 139-49). This is not altogether a sentimental view of the university, but addresses the critical problem of how to preserve key traditions: scholarship, critical thought, independence and activism. This approach places a value on these as ‘assets’ of the university. As discussed in regard to technology, the university has a necessary role in ‘legislating’ the codes that govern much of daily life, but the performance of this legislative function needs to be made explicit, and the

role of its membership more clearly defined in these terms. Similarly, the inherent conflict of the faculties needs to be considered a vital resource of the university in that the university becomes a microcosm for a larger public debate that confronts and negotiates the progress of modernity.

Conclusion

Academic democracy lies at the heart of a robust academy and represents the central core around which all future achievements in higher learning will occur. It is what has driven the evolution of higher learning, bringing about demand for internal revolution, adaptation and change, in line with larger social movements and external pressures for reform. Because of the traditional function of universities in civil society, academic democracy is also certain to be central within the new corporate environment, and what drives institutional competitive advantage, and more broadly generate the assets needed for national comparative advantage, in terms of building a knowledge-based economy. While claims for academic independence can be used as the means for shrouding the genuine need for institutional reform, the history of higher learning also suggests that the demand for institutional reform is equally likely to well up from below, that emerging generations are keenly aware of the need for higher learning to provide utility. It must also be remembered that external pressure for academic reform is the standard excuse by despotic regimes to curtail academic freedom in order to close down dissent and impose ideological control. Within advanced liberal democracies, the processes of reform and adjustment need to be navigated between the extremes, a task made difficult because of the almost continual and often disruptive reform process itself, brought about by the rapid rate of economic, social and technological change. This ongoing wholesale reform process needs to be balanced against the demands for continuity and equilibrium, necessary to preserve the key assets of higher learning, principally embodied in traditions of dispassionate inquiry and critical scholarship, and also represented in the scientific and technical capabilities, which accumulate over time and which hold specific national economic and cultural relevance.

As a counterbalance to reform, there also needs to exist stability and equilibrium, along with the necessary mechanisms that generate confidence and encourage academic experimentation in new organisational design. What is normally overlooked is that this needs to apply as much to the way in which the academy organises its activities as it does to formal research; that is, the scope for innovation in institutional and organisational design from within, and from the ground up, is as much the lifeblood of the academy as are the traditions of scholarship and the facilities and resources needed to carry out teaching and research. It is through this process that the necessary hybridised forms of corporate and collegial organisation are likely to emerge. The nature of regulatory environments, and how they foster and support academic democracy, is therefore a critical variable, in terms of generating new modes of operating that successfully straddle collegial and corporate imperatives. Similarly, mechanisms that fail to stimulate academic democracy and ‘bottom up’ participation in organisational design will inhibit experimentation and innovation, limiting the scope for the evolution of adaptive organisational models, and ultimately undermining competitiveness.

* * *

Conclusion

What is the relationship between advances in knowledge and the political process, and how do conceptions of knowledge relate to the possibilities and the limits of state action? These are the overarching questions through which the major concerns of this thesis, relating to the role and purpose of the academy, have been addressed. In line with this, the proposition developed throughout the discussion is that the role of the academy is governed by two principal influences: the power of the state and changing conceptions of knowledge. Having mapped the patterns of interaction between each of these – the university, the state and concepts of knowledge – over a very long period, it has been possible to show that the university and the state share a mutual quest for pragmatic knowledge, though each plays separate and very distinct roles in the acquisition process. As a consequence, it has been possible to find support for various propositions. For instance, it is plausible to argue that whole societies and states learn by much the same method through which human knowledge advances: iteratively, by trial and error, by experimentation, by moving from theory to practice and to revision, in a logical stepwise fashion, the exact course of which relates to the nature of the problem. So, these iterations are both systematic and messy because they occur in response to both emergent ideas and existing knowledge that is tested against the stubborn reality of material circumstance, and often amidst the chaos of events. In other words, it is a process of ‘learning-by-doing’, the outcomes of which represent an accumulation of pragmatic knowledge, the great artefact of which is urban civilisation. More significantly, the evidence offered here shows this process is conducted and transacted across the boundaries of the academy and the state, making their institutional distinction vital. The reason is that they are each key participants in a process: the academy is a primary source of conceptual ideas and the instrumental means of applying these, and the state brings these into the experiential realm, where ideas are interpreted, reformulated and tested, and where their success or failure is most often measured. This suggests that academic autonomy has a functional importance beyond traditional reasons, such as the need for objectivity and intellectual freedom.

The evidence for this derives from the way in which the state and the university developed mutually through a process of ‘interlocking steps’ (Chapter 1, 25), the nature of which could only be outlined fully by examining events within very long time frames, beyond the constraints of national cultural bias and myth making. These tend to disregard the wider and longer-term influences of higher learning, as evident in the way in which the various impacts, such as those of Islam, were for some centuries discounted in the emergence of the medieval university (Chapter I, Sect. C). These ‘hidden’ causes of higher learning are part of the dark matter of history, revealed over large time spans. This is also the case with writing –perhaps the nearest physical embodiment of knowledge – whose impact as a key variable in the emergence of cities, and state formation, was only realised cumulatively, over epochs (Chapter II, Sect. A). This idea is supported by the empirical evidence showing that, for example, the functional importance of Roman law and the way it enabled heterogeneous groups to cooperate and negotiate was only observable over a period of centuries (Chapter II, Sect. E). Similarly, the argument that has been advanced that the Scientific Revolution occurred as a result of internal pressures, more so than external stimuli (Chapter II, Sect. A), coheres with a long-term cyclic pattern of decline, revolution and self-renewal within the academy that is only apparent in terms of epochs. Narrow historical perspectives show only unintelligible fragments of the pattern of interaction that occurs between the academy and the state, leaving the false impression that the histories of each are independent, rather than intimately linked. A longer-spanning perspective shows the way in which knowledge, and more significantly, the conceptual schemes and cosmologies that both derive from new knowledge and also generate new ideas, run in close parallel to the formation of the secular state. This leads to the general conclusion that the two entities are locked within a complex binary relationship in which there exists an ongoing tension, as initially suggested by Jaspers, between the ‘legitimising’ role of the academy, and the ‘supervisory role’ of the state. More importantly, this long perspective shows that the key causal mechanisms linking knowledge and power are elusive in terms of conventional history and the analysis of events, and this is an important methodological point that becomes relevant later.

The more specific aim here has been to examine the role and purpose of the university, with a view to developing a ‘new case’ for the university that was not

simply a restatement of the old case (*Introduction*, 8, 29). This entailed developing a theoretical position that could be widely tested across the vast canvas of history (Chapters I-II), that was coherent and robust, consistent with related phenomena, such as the relations between power and knowledge in general (Chapter III), and also offered explanatory power when examining the minutia of contemporary events (Chapters IV-VI). This would in turn provide utility, in terms of offering fresh perspectives (Chapter VII) in support of a ‘new case’ for higher learning. To achieve this it was useful – as mentioned briefly above – to undertake three separate but closely related lines of inquiry, beginning with a survey of the origins of the Western academy. From this, it was concluded that the civil purpose of higher learning arises from the need to solve the material problems of urban existence, as was evident within earliest scribal cultures. The patterns and structures of academic-state relations that emerged in response to the growth of cities provided the embryonic social order for successful urban survival. These are not immutable deep structures that are absolute, but represent universal characteristics common to urban existence, that are ‘structural’ in as much as common structural features occur within cities, families, and whole populations, either due to the constraints of their internal dynamics or external environments.

The first expression of the university as an autonomous civil institution was in ancient Greece; however, this idea was much more fully articulated in the Middle Ages, with the emergence of the medieval university and the way it became instrumental in the genesis of the secular state. Scholasticism had preserved Platonic traditions, providing the wellsprings of Western higher learning, and the context for a reawakening of humanism in Europe, while the clockwork routines of monastic life had trained Western sensibilities within the ‘physical, social and cognitive’ (Chapter I, 66) spaces of an emerging modernism. This provided the physical setting and material circumstances for the spread of civil society and paved the way for the growth and success of the European system of states. The pattern of interaction between the cognitive, the social and the material world was found to be repeated with causal regularity, and *reinforced sequentially*, throughout the continued articulation of the secular state. The very same imperatives and processes, linked to the embryonic structure that was initially detected, were shown to persist through time.

As a result, it was possible to characterise the instrumental role played by higher learning in the rise of civil society, in the advent of modernity, in the growth of national consciousness, in the spread of empires and in the emergence of globalism. Moreover, as discussed below, this pattern of interaction would strongly suggest a key *configurative* role for higher learning in the current transformation of the state, occurring in association with globalism and regional integration (as explored in Case Study 1). However, for such a prediction to carry any force, it was necessary to know more about the obscure mechanisms behind this causal regularity. The historical evidence suggests that the fundamental nature of the ongoing relationship between the academy and the state is that they are essentially conjoined, though necessarily distinct. This reflects a dense interconnectivity and interdependence, generating ‘sibling like’ rivalry marked by cooperation and tension. Over time, an intense dialectic can be observed: any change within one related to corresponding changes in the other, and this was explained by cyclic feedback mechanisms, operating over long spans of time, the patterns of which reflected the morphological features of the state, more commonly referred to as ‘national policy styles’. This is the hypothesis of structural interdependence or ‘co-evolution’ (Chapter I, 64-8; Chapter II 99-100).

There are two pathways open to test the general and specific aspects of this hypothesis, though methodological constraints on how this could be achieved. Presumably, co-evolution is not restricted to relations between the academy and the state, but relates to the interaction of knowledge, society and political power more generally, and this phenomenon is therefore open to critical analysis, drawing upon historical evidence at a broad level. This represents the second line of inquiry, and it builds on the empirical evidence accumulated in the early narrative, but the analytical focus is sharpened in the discussion in Chapter III. This validates the co-evolution hypothesis by clearly exposing the obscure causal mechanisms that link rational human and technical systems (Sects C-D). However, by definition, these mechanisms become less visible when examining detailed events within short historical periods. At the same time, the morphological structures they generate do lend themselves to empirical examination, and this develops into the third line of inquiry. Their presence, it is argued, provide powerful lenses through which national political, social and cultural tensions can be observed and explained. This makes it

possible to test specific propositions in relation to the nature of power relations between the academy and the state, including the key proposition that while these entities remain separate, to be productive, their relationship requires a certain degree of equilibrium. Testing this kind of proposition is best done using thick description. This is done through the three tightly linked Case Studies (Chapters IV-VI). Again, much of the theoretical and empirical groundwork for these is developed in the earlier substantive history, dealing with state formation, state capacity and national styles. The outcomes of these separate lines of inquiry are brought together and developed further in Chapter VII.

What is intriguing about the fundamental nature of the binary relationship between the academy and the state is the reciprocity that occurs between power and knowledge, as elucidated in the second line of inquiry. This reveals that conceptual schemes and cosmologies become embedded as organisational forms. The tight binary relationship between the academy and the state, and the close parallel in events that continued to mark their evolution, points to a causal linkage between the two. However, this is an inference based upon the regularity of sequential events traced over time, showing great consistency in the instrumental and symbolic role of the university in relation to the articulation of the state. It was also possible to observe parallels between conceptual knowledge and the generation of political ideas. The inference of causality demanded closer investigation into what might be the underlying mechanisms influencing these interactions. The simultaneous emergence of the modern state and the Western academy suggests that intellectual ideas and scientific concepts bear some close relationship to the formation of political beliefs and organisational forms that develop to manage and shape society. The general assumption has been that this is due to conceptual borrowing. This would explain, for instance, why scientific ideas became the metaphors for the political machinery of the state, as occurred after the Enlightenment (Chapter II, 76-7), and how notions of relativity and non-linearity provided the conceptual models and rationale behind new forms of management during the rise of globalism (Chapter II, 93-4).

The position advanced in this thesis ventures much further than this. Using the notion of ‘co-evolution’ it is argued that shared imperatives govern the development of social and technical systems, locking the two together. To clearly identify these, it

is necessary to draw a distinction between what is scholarly and scientific deliberation, and what are the habits and routines of scientific and laboratory practice that become embedded in social and political organisation. These procedures and their power in generating controlling technologies – the ‘legislative’ codes of modern urban existence – rival politics as a mode of governing daily life (Chapter III, Sect. E). This implicates the academy and the way its social responsibilities need to be reviewed and redefined, a matter taken up in Chapter VII.

Moreover, a failure to clearly distinguish between science and science practice, in constructionist and post-modern approaches to the impact of knowledge on society, has thoroughly undermined critiques of science, yet this is one of the key roles of the university. As a result, there is a lack of understanding, and a lack of general awareness, of the power of ideas and practices emerging from seminar rooms and laboratories, and how these provide the instrumental possibilities and policy choices that create the technological fabric that governs daily existence. These ideas and practices also generate and embed the material structures and organisational forms – in a very material sense – that shape and configure ‘path dependencies’. This whole line of inquiry serves an important explanatory function, but it also highlights points made in relation to causal factors that are usually obscured, as mentioned. These factors have a strong bearing on events as they underpin the power of path dependency, on which other levels of the argument rely. As a result, this line of inquiry leads to a much firmer conceptual basis for path dependency than previously considered, at least in relation to this general area. Path dependency provides the context for state-university relations, and explains many of the constraints and possibilities that exist within any given national system. Moreover, the substantial role of path dependency suggests that patterns observable in the past, such as the role of higher learning in helping to shape and configure the state, are likely to have a strong bearing on events unfolding into the future.

As mentioned, this underscores the argument developed in Case Study 1 in relation to the current transformation of the state, and the role of the networked university in shaping future democratic forms, and notions of regional citizenship. The findings in relation to co-evolution, and the theoretical claims they support, provide the strong foundations for this argument. The Case Studies are designed to

systematically move and intensify the analytical focus from the international (Case Study 1) to the national (Case Study 2) to the local (Case Study 3) in order to explicate fully the mechanisms that have been previously referred to in fairly general terms as *formative* and *configurative*. In this respect, Case Study 1 points to the organisational patterns associated with collaborative links that derive from educational exchange and were likely, therefore, to provide the templates for future organisational forms. The argument advanced is that the process of generating these linkages needs to be in synchrony, and in equilibrium, with Australia's broad civil aspirations, or national interest, and the growth in the networked university in the Asia Pacific region. However, the nature of Australia's involvement in the rapid expansion of 'for profit' educational services is found to run the risk of being out of step with these longer term interests, representing a lack of strategic coherence. The next Case Study (2) questions why this situation arose, arguing that the centralisation of policymaking, and incursions into academic freedom, threaten to diminish the creative and innovative capacity of the Australian university. In working through this, the study provides empirical evidence supporting the hypothesis that an inward looking, and entrenched government, will move automatically to capture and contain the academy, and a preponderance of evidence shows how this occurs.

This supports the general argument that a historical shift has occurred, whereby the *reinforcing sequences* normally marking university-state relations moved toward *reactive processes*, associated with the consolidation of American hegemony and the entrenchment of market liberalism. Case Study 3 examines the mechanisms through which these reactive processes can bring about disequilibrium. It is argued that changes operating at the macro-political level, with a shift towards the US model of higher education, have disrupted the process of consensus in policymaking. This led to a failure in advocacy among university leaders, fragmentation within the larger academic community, resulting in policy failure and instability. What is also significant is that the root causes of this disruption relate to deep-structural changes occurring within the state. The morphological constraints on these, in regard to the deep-seated political and cultural tensions, were fully exposed by closely examining the changing relations between the academy and the state, as foreseen (*Aims & Methods*, 34-5).

The Case Studies should be viewed in the broader historical context of university-state relations, as discussed earlier. The historical survey shows how the fortunes of the academy invariably wax and wane. Absolute political dominance of the academy, especially within the context of a liberal democracy, is unlikely to be sustainable for a long period as this drives out the spirit of free inquiry and generates dissent and division. This causes disengagement and breakdown between the university leadership, faculty and the student body, making operations difficult. In the modern context, this would ensure a lack of market competitiveness. It is not, therefore, a pathway that academic leaders would willingly choose, but this would be more likely to represent a transitional phase brought about by exceptional circumstances. Moreover, the idea that university leaders, and academics more generally, tend to be politically inept, touches on debates between the inherent tensions between ‘contestation and compliance’ that go back to Plato’s complaint about the Sophists (Rowland 2006, online). It may be true that free-flowing speculative thought is not always conducive to day-to-day decision-making. As argued in Chapter VII, a capacity for academic democracy relies upon some distance from the political cut and thrust, and no doubt academic sensibilities generate a natural resistance to engaging in *realpolitik*. On the other hand, the proposition that academics are unable to engage politically collapses in the face of a long history of academic agitation and resistance. Most significantly, this is demonstrated at critical junctures in history, from the walkout by the whole of the University of Paris (Chapter I, 52), to the defiance of Galileo (Chapter II, 75-6) and the civil disobedience of Russell (Chapter II, 92). Notably, these peaks in academic activism correspond with events that shaped the formation of the secular state, helped to steer the emergence of modernism and signalled the beginnings of globalism. When necessary, academic activism has proven central to the course of major historical events, not to mention the broad thrust of modern history in which intellectual ideas, nurtured within academic traditions, have been at the root cause of social change (Chapter II, 85). The overall outcome of the Case Studies suggests that, at least within Australia, effective political advocacy and mobilisation has become an essential part of the new market-oriented political landscape facing the academy. However, similar pressures will undoubtedly grow in other countries due to the same kinds of changes that are taking place, making this area an important emerging field of research.

As mentioned briefly above, the empirical findings from the Case Studies support the general proposition that the growth of US hegemonic power, and the associated dominance of market liberalism, represent a new form of rigidity. In this respect, an overriding question, asked at the outset, was whether there existed, at the international level, an emergent hierarchy, an entrenched 'neoliberal' outlook that could be a cause for institutional sclerosis, of the same kind that led to the decline of humanism in the seventeenth century? This discussion affirms that the strictest and most slavish embrace of unreconstructed market models can represent inappropriate 'bolt-on solutions' unless the full context, and complexity, of national, local and institutional constraints are taken into account. The Case Studies also reveal, in answer to this question, that states now represent an amalgamation of latent capacities, and these are likely to interact in very different ways, and at different levels, to pressures for change. This point was borne out with great clarity in relation to Australia; however, the answers only began to emerge as a result of very fine-grained analysis that delved deep into the cultural and historical attributes and constraints that defined state capacity. While it was beyond the scope of this thesis to look far beyond Australia and its relations with Asia, there would appear to be fertile ground for cross-country and other regional studies, using this approach.

In this respect, the general conclusion that can be reached is that reactive processes associated with market liberalism call for a renewal in academic activism, but this is likely to take on a new form in response to the transformation occurring in the nation state as it moves towards a more complex, and a more variegated form. While the changing political landscape may call for greater mobilisation, political action often represents isolated peaks in what needs to be a broader level of advocacy and civil engagement. This begins with fostering academic democracy, through which the university can also work to better achieve its central mission and realise its competitive advantage in the marketplace. The paradox of orthodox thinking that colours policy initiatives is that it works to diminish the scope for academic democracy and civil engagement. At the same time, it would appear that these problems are not catastrophic; analogous crises can be found at regular intervals in the past, and it is perhaps a great misconception that today's struggles are new. Their persistence reflects the difficult task of the university of resisting pressure for external control while keeping alive its traditions, revising its own orthodoxies and shaking out

old habits. This is all in order to perform its primary role of generating new and revolutionary models of thought that engender civility and improve the human condition.

The findings here provide a firm theoretical underpinning for the proposition that academic creativity, innovation and enterprise – achieved in ways that reflect the civil purpose of the academy – occur by way of collegial and managerial interaction, and mutuality. These can produce new and transformative modes of thought and action. In this regard, this analysis reinforces the empirical evidence (Clarke, 2004; Chapter VII, 253) suggesting that the way forward is through a better dialogue, and a better understanding on both sides of the new divide: administrators need to be heavily steeped in the principles, norms and values of the academy, and the academic profession must seek to comprehend the need to adapt and embrace change in ways that do not compromise the civil, ethical and moral purposes of higher learning, the most fundamental element of which is the notion of academic democracy. This thesis provides strong theoretical grounds to support this program. Moreover, it points to the need to extend this approach to the level of policy formulation, that is, to more closely examine the interface between government and the academy, and between policymakers and the academic community more generally. For instance, it raises questions about the necessary conditions required at the bureaucratic level to incorporate deeper understandings of academic processes. Similarly, it suggests that a corresponding set of conditions needs to exist within the academy, for penetrating the policy processes within government.

Finally, and most significantly, the task of this thesis was to expose an area of analysis and debate that has previously tended to ‘fall between two stools’, and this relates to the political interface between the academy and the state. Much has been written about global change and institutional change affecting universities, but there has been a dearth of grounded theoretical development to help explain processes occurring at the state level, and the impact of national policy styles and state capacities. One possible reason for this is that the policy ‘sector’ of higher education has not been clearly distinguished as fundamentally different. What this has meant, in a climate of deregulation and privatisation, is that the same prescriptions that are applied to other sectors, whether they relate to building roads or managing prisons,

may be applied to higher education. The results produced by this thesis strongly challenge that orthodoxy by demonstrating that key aspects of the academy are qualitatively different from the 'service sector', such as its role in producing the 'legislative codes' by which daily life is increasingly governed. An understanding of this role was arrived at through examining the political ecology of the university and its generative role and function within the academy. In this regard, the university operates at what might be described as the *programmatic* level within society. The biological metaphor of the gene is perhaps more appropriate than the computer code, though neither should be taken too literally. However, there is a preponderance of supporting evidence for the idea that the long-time collaboration between higher learning and politics is a creative transformational process that brings forth new organisational and technological forms that have direct power over people's lives. What this suggests, therefore, at a very practical level, is that the new case for the university and advocacy for higher learning in general embrace a deeper sense of social responsibility and a broader comprehension of accountability that must necessarily accompany autonomy and self-regulation. How best this might be achieved is by far the largest and most difficult area for future inquiry.

End

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Appendix 1

Award Course Completions for All Students by Citizenship and Level of Course, 1996 to 2005

Broad Field of Education	1996(a)	1997 (a)	1998 (a)	1999 (a)	2000 (a)	2001 (b)	2002 (b)	2003 (b)	2004 (b)	2005(b)	% change on 2004
Domestic Students											
Natural and Physical Sciences										13,771	
	9,175	9,855	10,039	10,268	10,403	12,930	12,558	12,746	13,359		3.1%
Information Technology	7,863	8,523	8,755	9,062	9,198	8,268	9,494	9,093	8,539	7,625	-
											10.7%
Engineering and Related Technologies	7,386	7,763	7,696	7,406	7,166	7,856	7,686	7,843	8,175	7,578	-7.3%
Architecture and Building	2,447	2,673	2,758	2,925	2,767	2,805	2,860	2,932	3,003	3,351	11.6%
Agriculture, Environmental and Related Studies	2,833	3,137	3,324	3,186	3,303	3,561	3,473	3,718	3,493	3,297	-5.6%
Health	18,724	19,095	18,911	18,297	18,364	19,688	20,588	20,992	22,126	22,749	2.8%
Education	21,182	21,442	20,869	19,304	19,464	19,868	21,837	22,654	22,976	23,267	1.3%
Management & Commerce	23,380	26,000	27,804	29,374	30,182	33,036	34,291	35,525	36,416	36,544	0.4%
Society and Culture (c)	27,221	29,496	30,420	31,253	31,527	33,705	34,432	36,431	38,810	38,844	0.1%
Creative Arts	7,722	8,321	8,400	8,590	8,535	8,831	9,753	10,989	11,368	12,349	8.6%
Food, Hospitality and Personal Services	22	24	24	25	26	19	26	31	23	26	13.0%
Mixed Field Programmes	24	26	27	27	27	0	0	0	0	0	0.0%
Total	127,978	134,160	136,423	136,160	136,116	145,953	151,552	157,003	161,622	162,752	0.7%
Overseas Students											
Natural and Physical Sciences										2,768	
	1,219	1,366	1,601	1,791	2,196	1,202	1,412	1,690	2,320		19.3%
Information Technology	1,345	1,554	1,844	2,071	2,580	6,556	8,993	10,013	9,556	10,645	11.4%
Engineering and Related Technologies	1,373	1,587	1,804	2,058	2,387	2,857	3,150	4,100	4,575	5,215	14.0%
Architecture and Building	459	494	652	760	907	1,037	1,308	1,328	1,180	1,171	-0.8%
Agriculture, Environmental and Related Studies	323	356	364	414	451	309	425	401	593	473	-
											20.2%
Health	1,426	2,042	2,482	2,671	3,009	2,965	3,347	3,473	4,078	3,807	-6.6%
Education	819	878	860	981	1,173	1,414	1,507	2,093	2,565	3,016	17.6%
Management & Commerce	7,698	9,945	12,121	13,639	17,277	20,041	23,229	27,565	30,629	33,590	9.7%
Society and Culture (c)	2,093	2,388	2,828	3,189	4,008	2,903	3,499	4,693	5,333	5,673	6.4%
Creative Arts	489	559	663	747	933	2,012	2,499	2,982	3,348	3,446	2.9%
Food, Hospitality and Personal Services	4	4	5	6	7	9	10	3	2	2	0.0%

Services											
Mixed Field Programmes	1	2	2	2	3	0	0	0	0	0	0.0%
Total	17,250	21,115	25,133	28,263	34,778	41,136	49,192	58,112	63,819	69,436	8.8%
TOTAL STUDENTS											
Natural and Physical Sciences	10,394	11,221	11,640	12,059	12,599	14,132	13,970	14,436	15,679	16,539	5.5%
Information Technology	9,208	10,077	10,599	11,133	11,778	14,824	18,487	19,106	18,095	18,270	1.0%
Engineering and Related Technologies	8,759	9,350	9,500	9,464	9,553	10,713	10,836	11,943	12,750	12,793	0.3%
Architecture and Building	2,906	3,167	3,410	3,685	3,674	3,842	4,168	4,260	4,183	4,522	8.1%
Agriculture, Environmental and Related Studies	3,156	3,493	3,688	3,600	3,754	3,870	3,898	4,119	4,086	3,770	-7.7%
Health	20,150	21,137	21,393	20,968	21,373	22,653	23,935	24,465	26,204	26,556	1.3%
Education	22,001	22,320	21,729	20,285	20,637	21,282	23,344	24,747	25,541	26,283	2.9%
Management & Commerce	31,078	35,945	39,925	43,013	47,459	53,077	57,520	63,090	67,045	70,134	4.6%
Society and Culture (c)	29,314	31,884	33,248	34,442	35,535	36,608	37,931	41,124	44,143	44,517	0.8%
Creative Arts	8,211	8,880	9,063	9,337	9,468	10,843	12,252	13,971	14,716	15,795	7.3%
Food, Hospitality and Personal Services	26	28	29	31	33	28	36	34	25	28	12.0%
Mixed Field Programmes	25	28	29	29	30	0	0	0	0	0	0.0%

(a) Data for 1996 - 2000 have been mapped from field of study classification to field of education classification.

(b) The data takes into account the coding of Combined Courses to two fields of education. As a consequence, counting both fields of education for combined Courses means that the totals may be less than the sum of all broad fields of education.

(c) Society and Culture incorporates the Humanities and Social Sciences (HSS)

Source: DESTa (2007)

Appendix 2

Award course completions for all students by citizenship and course level 1996 -2005

Level of Course	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	% change on 2004
Domestic Students											
Higher Doctorate	57	62	65	19	16	22	20	34	29	31	6.9%
Doctorate by Research	2,326	2,707	2,853	3,018	3,183	3,290	3,629	3,940	3,945	4,250	7.7%
Doctorate by Coursework	3	9	14	13	44	52	62	86	118	138	16.9%
Master's by Research	1,494	1,485	1,354	1,389	1,374	1,326	1,290	1,331	1,275	1,260	-1.2%
Master's by Coursework	11,160	12,499	13,863	14,185	14,394	15,928	17,125	18,274	20,350	21,278	4.6%
Postgrad. Qual/Prelim	303	279	201	242	101	137	117	105	79	59	-25.3%
Grad.(Post) Dip. - new area	11,970	12,114	11,629	10,665	10,819	10,636	10,601	10,429	10,949	11,196	2.3%
Grad.(Post) Dip. - ext area	4,945	5,720	4,668	3,999	3,553	3,863	4,060	4,088	3,981	4,178	4.9%
Graduate Certificate	4,829	4,858	5,259	6,064	7,088	7,916	8,486	9,549	9,916	9,569	-3.5%
Bachelor's Graduate Entry	2,249	2,490	2,936	3,101	3,585	3,816	4,071	4,131	3,894	3,917	0.6%
Bachelor's Honours	7,197	7,334	7,781	8,727	7,762	8,229	8,469	8,561	9,300	9,155	-1.6%
Bachelor's Pass	77,822	81,262	82,444	81,524	81,060	85,907	89,127	92,173	93,456	94,649	1.3%
Associate Degree	0	0	0	355	388	400	418	427	325	379	16.6%
Advanced Diploma (AQF)	961	961	805	920	825	1,117	1,168	1,163	1,012	902	-10.9%
Diploma (AQF)	2,008	1,714	1,498	1,408	1,593	2,264	1,838	2,024	1,974	1,294	-34.4%
Other undergraduate award courses	654	666	1,053	531	331	1,050	1,071	688	1,019	497	-51.2%
TOTAL	127,978	134,160	136,423	136,160	136,116	145,953	151,552	157,003	161,622	162,752	0.7%
Overseas Students											
Higher Doctorate	1	1	3	2	0	0	1	1	2	1	-50.0%
Doctorate by Research	579	639	593	647	610	643	662	788	955	994	4.1%
Doctorate by Coursework	0	3	7	9	11	25	41	48	85	129	51.8%
Master's by Research	273	290	282	271	267	268	261	262	295	316	7.1%
Master's by Coursework	3,548	5,048	6,313	7,709	10,889	13,845	17,028	22,608	24,313	28,417	16.9%
Postgrad. Qual/Prelim.	70	59	59	81	18	20	38	29	20	20	0.0%
Grad.(Post) Dip. - new area	1,297	1,239	1,252	1,262	1,879	2,463	3,391	2,983	2,580	2,928	13.5%
Grad.(Post) Dip. - ext area	485	556	508	440	558	714	777	867	742	777	4.7%
Graduate Certificate	292	423	517	584	765	922	1,291	1,449	1,605	1,497	-6.7%
Bachelor's Graduate Entry	75	56	110	152	233	306	284	322	338	327	-3.3%
Bachelor's Honours	383	351	402	632	439	592	741	736	877	850	-3.1%
Bachelor's Pass	10,126	12,341	14,914	16,308	18,868	21,045	24,141	27,484	31,548	32,460	2.9%
Associate Degree	0	0	0	5	14	15	25	17	12	22	83.3%
Advanced Diploma (AQF)	25	33	66	62	63	95	49	54	76	96	26.3%
Diploma (AQF)	26	34	43	34	29	5	24	39	83	100	20.5%
Other undergraduate award courses	70	42	64	65	135	178	438	425	288	502	74.3%

TOTAL	17,250	21,115	25,133	28,263	34,778	41,136	49,192	58,112	63,819	69,436	8.8%
TOTAL											
Higher Doctorate	58	63	68	21	16	22	21	35	31	32	3.2%
Doctorate by Research	2,905	3,346	3,446	3,665	3,793	3,933	4,291	4,728	4,900	5,244	7.0%
Doctorate by Coursework	3	12	21	22	55	77	103	134	203	267	31.5%
Master's by Research	1,767	1,775	1,636	1,660	1,641	1,594	1,551	1,593	1,570	1,576	0.4%
Master's by Coursework	14,708	17,547	20,176	21,894	25,283	29,773	34,153	40,882	44,663	49,695	11.3%
Postgrad. Qual/Prelim.	373	338	260	323	119	157	155	134	99	79	-20.2%
Grad.(Post) Dip. - new area	13,267	13,353	12,881	11,927	12,698	13,099	13,992	13,412	13,529	14,124	4.4%
Grad.(Post) Dip. - ext area	5,430	6,276	5,176	4,439	4,111	4,577	4,837	4,955	4,723	4,955	4.9%
Graduate Certificate	5,121	5,281	5,776	6,648	7,853	8,838	9,777	10,998	11,521	11,066	-3.9%
Bachelor's Graduate Entry	2,324	2,546	3,046	3,253	3,818	4,122	4,355	4,453	4,232	4,244	0.3%
Bachelor's Honours	7,580	7,685	8,183	9,359	8,201	8,821	9,210	9,297	10,177	10,005	-1.7%
Bachelor's Pass	87,948	93,603	97,358	97,832	99,928	106,952	113,268	119,657	125,004	127,109	1.7%
Associate Degree	0	0	0	360	402	415	443	444	337	401	19.0%
Advanced Diploma (AQF)	986	994	871	982	888	1,212	1,217	1,217	1,088	998	-8.3%
Diploma (AQF)	2,034	1,748	1,541	1,442	1,622	2,269	1,862	2,063	2,057	1,394	-32.2%
Other undergraduate award courses	724	708	1,117	596	466	1,228	1,509	1,113	1,307	999	-23.6%
TOTAL	145,228	155,275	161,556	164,423	170,894	187,089	200,744	215,115	225,441	232,188	3.0%

Source: DEST (2007a)

Appendix 3

Explanatory note for Table 4, Case Study 1: Overseas Student Experiences 1984-2005

The two studies were conducted almost twenty years apart, and while they each addressed similar questions they took different though comparable approaches. The 1984 study was commissioned research for the Goldring (1984) report and this randomly surveyed 2509 (about 13 percent) of overseas students, from across the country, and also conducted 120 interviews. The Monash study (Deumert et al 2005) was based on 220 semi-structured interviews with international students from nine institutions. The Monash study was also more wide-ranging and included questions relating to ‘safety and security’ and the provision of support services.

Appendix 4

Basic research as a percentage of R&D performed by sector

	Higher Education			Government			Business enterprise			Private Non Profit		
	1981	1992	2003	1981	1992	2003	1981	1992	2003	1981	1992	2003
Australia	0.67	0.64	0.52 ¹²	0.31	0.28	0.30 ¹²	0.05	0.06	0.07 ¹²	0.53	0.79	0.59 ¹²
Austria	0.48 ¹	0.48 ⁶	0.49 ¹²	0.25 ¹	0.21 ⁶	0.22 ¹²	0.06 ¹	0.04 ⁶	0.04 ¹²	0.27 ¹	0.28 ⁶	0.18 ¹²
Czech		0.41 ⁷			0.48 ⁷			0.01 ⁷			0.03 ¹⁰	
Denmark	0.60 ²	0.60	0.55	0.17 ²	0.22	0.17			0.05	0.55 ²	0.56	0.57
France	0.89 ³	0.89	0.86	0.12 ⁵	0.19	0.22	0.03	0.04	0.05	0.48 ³	0.40	0.45
Germany	0.78	0.73 ⁸		0.38	0.39 ⁸		0.06	0.06 ⁸	0.04	0.22	0.31 ¹¹	
Hungary	0.33 ⁴	0.44	0.45	0.34 ⁴	0.55	0.57	0.02 ⁴	0.05	0.03			
Iceland	0.70	0.47	0.44	0.15	0.20	0.21	0.01		0.00	0.33	0.49	0.79
Ireland	0.46	0.33	0.48	0.05	0.04	0.23	0.05	0.06	0.09	0.06	0.08	
Italy	0.52	0.52		0.25	0.36	0.38 ¹²	0.02	0.03	0.05 ¹²			0.49 ¹²
Japan	0.30	0.33	0.37	0.13	0.16	0.30	0.05	0.07	0.06	0.09	0.15	0.17
Korea			0.36			0.22			0.11			0.03
Mexico		0.34 ⁶	0.53 ¹³		0.24 ⁶	0.41 ¹³		0.08 ⁶	0.08 ¹³		0.14 ⁶	0.33 ¹³
N. Z.			0.64			0.45			0.05			
Norway	0.48	0.48 ⁶	0.49	0.14	0.12 ⁶	0.17	0.02	0.02 ⁶	0.03	0.16		
Poland		0.50 ⁹	0.60		0.50 ⁹	0.43		0.08 ⁹	0.08		0.33 ⁹	0.45
Portugal	0.54 ²	0.43	0.47	0.10 ²	0.07	0.07	0.01 ³	0.01	0.03	0.35 ²	0.26	0.45
Spain	0.50	0.51	0.48	0.21	0.18	0.21	0.05	0.05	0.12	0.12 ³	0.31	0.42
Sweden	0.70	0.67 ⁸		0.15	0.13 ⁸	0.80 ¹³	0.03	0.02 ⁸		0.00	0.38 ⁸	
U.K.					0.16 ⁶	0.34		0.05 ⁶	0.05			
U.S.	0.67	0.67	0.75	0.21	0.24	0.29	0.03	0.06	0.04	0.38	0.47	0.52
Total	0.57		0.64	0.21	0.24	0.29	0.04	0.06	0.05	0.27	0.47	0.46
OECD		0.66										
Comparable	0.55	0.52	0.53	0.19	0.21	0.30	0.03	0.04	0.05	0.31	0.38	0.46
mean												
Country	0.58	0.52	0.53	0.20	0.25	0.32	0.03	0.05	0.06	0.27	0.33	0.42
mean 14												

Notes

1: 1985 instead of 1981 2: 1982 instead of 1981 3: 1986 instead of 1981 4: 1987 instead of 1981 5: 1983 instead of 1981 6: 1993 instead of 1992 7: 1995 instead of 1992

8: 1991 instead of 1992 9: 1994 instead of 1992 10: 1996 instead of 1992 11: 1989 instead of 1992 12: 2002 instead of 2003 13: 2001 instead of 2003

14: For each year

Source: Extracted from OECD Science and Technology Indicators by Vincent-Lancrin (2006)

Appendix 5

Part A - Lead in questions to Vice-Chancellors

Structured interview

1. Just in a few words, what do you see to be the primary role of the AVCC, and how might this have changed in recent years?
2. What do you see as the main advantages in belonging to the AVCC? For instance, do you see these as mostly relating to your own institution, or to the higher education sector as a whole?
3. Are there instances when you have felt that individual institutions pursuing their own interests have detracted from the collective aims of the body?
4. To what extent - and in which particular cases - do you think the AVCC has worked in a unified way with the whole university community, including students and faculty?
5. In which instances is it possible to illustrate ways in which ideas and arguments developed by the AVCC have found their way into the political discourse, or directly into the policy process, either in steering decision making, or in assisting opposition parties?
6. Which are the most valuable fora for introducing new ideas and viewpoints: direct lobbying bureaucrats and parliamentarians, committees, public meetings, the media?
7. Which areas, and in which circumstances, can you point to showing how the AVCC has performed well, or poorly?
8. How will the proposed restructuring of the AVCC overcome some of the problems experienced in the past (or deal with issues raised in earlier questions)?

Supplementary questions:

How much discretion over academic matters are VCs gaining or losing, how is that balance shifting?

In hindsight, do you think the AVCC could have taken a stronger political stand in some areas? (How so?).

(Followed by open discussion)

Part B - Lead in questions to Policy Actors

Structured interview

1. In which areas do you think the AVCC worked most effectively as a peak lobby group for higher education.
2. Has the AVCC been effective in presenting a case for higher education in recent years, and how might it improve its lobbying efforts?
3. Exactly how is unity, or the lack of it, perceived as a problem?
4. Occasionally universities need to present different views, from their own institutional perspective. How does this play out in the policy making process? In which circumstances has the AVCC helped to bring about a consensus view to aid policy makers, or does it have the opposite impact?
5. The AVCC uses particular forums, and tactics, for presenting its ideas (submissions to inquiries, lobbying officials, attending parliamentary committees etc). Which areas do you think it is strongest, and which are the weakest? (How might it improve?)
6. Is the AVCC ever seen to represent the larger higher education sector, and when necessary does it perform well in bringing together the collective lobbying power of the entire university community? (Can we discuss particular instances?)
7. Are there ways that the AVCC effectively stimulates larger public debate over higher education? How is it seen as a media player, and public advocate in general?
8. In what ways will the proposed new restructuring and re-branding of the peak body address some of the key issues you have raised?

Supplementary questions

9. How is the AVCC seen among lobbyists and policy advocates in general, as fairly professional, or amateurs? For example, how much do they appear to rely on staffers, and how what do they bring to the process?
10. In your view are they too close to government, or do they manage to keep an appropriate distance?

(Open discussion)

APPROVALS

Interviews were conducted between January 22, 2007 and August 1, 2007.

The interview procedures and questions were given approval by the UNE Human Research Ethics Committee: Approval Number/s HEO7/001 (Vice-Chancellors)
HEO7/002 Policy Actors

Appendix 6

Case Study 3 Interview respondents

Members of the (former) board of directors of the Australian Vice-Chancellors Committee and expert Policy Actors

VC 1 (Unaligned)

VC 2 (Go8)

VC 3 (ATN)

VC 4 (IRU)

VC 5 (ATN)

VC 6 (Unaligned)

Policy Actors

PA 1 (Former Departmental officer)

PA 2 (ALP Parliamentarian, Estimates Committee member)

PA 3 (Former AVCC secretariat)

PA 4 (Former GO8 secretariat)

Informal interviews were also conducted with chief executive officers of the Council of Humanities and Social Sciences, the National Tertiary Education Union, and former chief executive officers of the AVCC. Approaches were also made to a former Coalition education minister, and two other Go8 members, who did not respond. However, their public statements were found to correspond closely with the 'official view' discussed in the text, and the views presented in the *Review of the AVCC* (2006 online). The sample here is therefore balanced towards the less dominant group of vice-chancellors. However, this also represents a much wider set of views than those sought for the AVCC 2006 review, as it incorporates the views of policy actors. This better reflects the broader higher education community identified in the Case Study. Interviewees were asked to speak anonymously, but to be identified by their associated grouping, or policy position within the lobby. It can be noted that one dissenting voice belongs to a policy actor (PA2) who has since become a Cabinet Minister.

Glossary

ACE American Council on Education
AGD Attorney-General's Department (Australia)
APEC Asia Pacific Economic Community
ASEAN Association of Southeast Asian Nations
ASEAN+3 ASEAN, China, Japan and the Republic of Korea
ATN Australian Technology Network
AUQA Australian Universities Quality Agency
AVCC Australian Vice-Chancellors' Committee
BAA Backing Australia's Ability
BCA Business Council of Australia
CHASS Council for Humanities and Social Science
CTEC Commonwealth Tertiary Education Commission
DEST Department of Education, Science and Training
FASTS Federation of Australian Scientific and Technological Societies
Go8 Group of Eight
HEE higher education exports
HEIMS Higher Education Information Management System
IRU Innovative Research Universities
KBE knowledge based economy
OECD Organisation for Economic Co-operation and Development
PA policy actor
PCO Parliamentary Counsel Office (New Zealand)
R&D research and development
SES Senior Executive Service
UA Universities Australia
UGC University Grants Commission
US United States
VC vice-chancellor