



Brian Martin is Professor of Social Sciences in the School of Social Sciences, Media and Communication at the University of Wollongong. The central theme in his research is the dynamics of power, with special attention to strategies for challenging repression and exploitation. He has explored power dynamics through an interplay of theory and case studies, including nonviolent action, dissent and scientific controversies.

Martin's research areas include strategies to oppose injustice; nonviolence and social defence; whistleblowing; suppression of dissent in science; controversies over nuclear power, fluoridation, pesticides, nuclear winter and origin of AIDS; technological vulnerability; values in science; environmental politics; institutional roots of war; plagiarism and educational methods; democratic alternatives to representative government; information alternatives; critique of experts. Earlier scientific work was in stratospheric modelling and numerical methods; astrophysics; and wind power and electricity grids.



TIED KNOWLEDGE: POWER IN HIGHER EDUCATION

BRIAN MARTIN

TIED KNOWLEDGE: POWER IN HIGHER EDUCATION

Brian Martin

email: bmartin@uow.edu.au

First published in 1998 on the web at

<http://www.uow.edu.au/arts/sts/bmartin/pubs/98tk/>

Permission is granted for unlimited reproduction of portions or all of this text provided

- full acknowledgment is given of the source;
- no changes are made except with the author's permission;
- no restraint is imposed on further reproduction of the text.



Social movements have not done all that much in these areas either. Their main impact has been in the creation of an alternative social environment which often gives protection against the more usual influences. Communal living often is an alternative to the nuclear family, while social action groups themselves provide a type of peer group. But organised campaigns to challenge the oppressive aspects of families and peer groups are not so common. The women's movement has played the most important role in its campaigns against male violence and male control in the family. As for sport, television and advertising, little has been done.

References

- Colin Ball and Mog Ball, *Education for a change: Community action and the school* (Harmondsworth: Penguin, 1973). An argument and lots of examples on redirecting education into community action.
- Cynthia Brown, *Literacy in 30 hours: Paulo Freire's process in North East Brazil* (London: Writers and Readers, 1975). A very clear explanation of how Freire's approach operates in practice, plus comments about applying it in the West.
- Virginia Coover, Ellen Deacon, Charles Esser and Christopher Moore, *Resource manual for a living revolution* (Philadelphia: New Society Publishers, 1981). Theory, group dynamics, consciousness raising, nonviolent action training, methods for organising and other tools for social movements.
- Randy Divinski, Amy Hubbard, J. Richard Kendrick, Jr. and Jane Noll, 'Social change as applied social science: obstacles to integrating the roles of activist and academic,' *Peace & change*, vol. 19, no. 1, January 1994, pp. 3-24.
- [Blanca Facundo on Paulo Freire](#)
- Paulo Freire, *Pedagogy of the oppressed* (Harmondsworth: Penguin, 1972).
- Bart Laws, 'Taking it from the street: an organizer goes back to school,' *Radical teacher*, no. 34, January 1988, pp. 16-22. The strengths and limitations of higher education in relation to grassroots organising.
- Tom Lovett, Chris Clarke and Avila Kilmurray, *Adult education and community action: adult education and popular social movements* (London: Croom Helm, 1983). A discussion and hard-headed analysis of the prospects and problems for adult education and community action.
- C. A. Rootes, 'Theory of social movements: theory for social movements?' *Philosophy and social action*, vol. 16, no. 4, October-December 1990, pp. 5-17. A sensitive treatment of the relation between theory and social action, including a critique of Touraine.
- Alain Touraine, *The voice and the eye* (Cambridge: Cambridge University Press, 1981). A programme of "sociological intervention" to support social movements.

PREFACE

Tied Knowledge is a book designed to provide a practical conceptual framework for understanding the dynamics of higher education. Using examples primarily from Australia, Britain and the United States, it examines power structures both outside and inside academia and how they interact and shape knowledge. These structures include hierarchy, disciplines, patriarchy, the state, capitalism and professions. Academia as a system of power itself both resists and accommodates these other power systems. The key resource used by the academics to promote their interests is the power to create and legitimate knowledge. By its form and content, this knowledge is tied to both the interests of academics and to those of powerful groups in society.

The book is neither pro nor anti-academia. Instead, it focuses on the structural factors shaping academic behaviour so that initiatives can strengthen and broaden the positive features of academia while trying to overcome the negative features. A key portion of the book is an examination and assessment of the main strategies that have been used to reform or challenge the nature and uses of academic power.

Acknowledgements

Over the years, I have gained insights about academia through discussions and correspondence from so many people that it is impossible to name them all. In addition, it is impossible to name all the authors whose writings have stimulated my thinking and increased my understanding about higher education. Suffice it to say that academic culture sustains a significant self-critical element on which I have drawn extensively.

Here I will name only those individuals who have provided specific help and advice in the writing of this book. The following people helped through extensive discussions of their views about aspects of higher education or providing advice and references: Alex Anderson, David Biggins, John Buchanan, Jean Buckley-Moran, Clare Burton, Jane Connors, Alastair Crombie, Cheryl Hannah, Ann Hone, Andrew Hopkins, Katherine Jensen, Ian Lowe, Simon Marginson, Jill Matthews, Elizabeth McKenzie, Val Plumwood, Larry Saha, Ariel Salleh, Marian Sawyer, Ian Watson and Lance Worrall. Jill Bowling helped enormously by listening to me describe the outline of each chapter before writing it, and by offering numerous helpful suggestions. Valuable comments and corrections on selected chapters were offered by Gay Baldwin, Jeff Masson, Bertell Ollman, Mike Spautz and Barbara Watson. Detailed comments on the entire manuscript were provided by Phil Anderson, Gabriele Bammer, Jill Bowling, Clyde Manwell, Helen Modra and Wendy Varney. Barbara Ferigo put an enormous effort into converting the text from one computer system to another.

To the very many others not named here who have provided insights, inspiration and support in all sorts of ways, I also say: thank you.

cific behaviours that benefit special interests. On the other hand, some aspects of socialisation provide people with tools to control their own lives individually and collectively.

The family is a key element in socialisation, especially in the reproduction of patriarchy and social class and in the domination of children. It can also provide protection for its members against outside attack, as often happens under repressive regimes.

Peer groups are extremely important in regulating behaviour in a range of situations ranging from the school to the factory floor to the boardroom. Peer groups often serve to transmit dominant social relations to individuals. Some peer groups though provide insulation from mainstream attitudes and behaviours.

Sport - especially spectator sport - often provides psychological involvement in ritualised competition. Spectator sport offers a means for social integration based on psychological identification rather than actual human involvement.

Television is vitally important in shaping the self-image and behaviour of many people. Although current events and some critical ideas are presented on television, the medium is essentially one-directional and in many people induces a dependence on an outside input of constantly changing images.

Advertising promotes not only particular goods but also consumerism. Most large-scale mass advertising - the usual form on television, billboards and glossy magazines - is based on developing and appealing to desires for glamour, status and instant happiness. Promotional (as opposed to informational) advertising is profoundly anti-educational in its creation of fantasy worlds in which image and insinuation replace content and satisfaction of needs. Very little of mass promotional advertising has the goal of promoting human autonomy!

These and other agencies of socialisation are vitally important in the 'educational environment', broadly conceived. Most educators focus exclusively on socialisation in the school, yet even the enlightened school must compete with influences from families, television and the like. If the goal is to promote autonomy in learning, the search for truth and other noble aims, then students and academics must confront the anti-educational aspects of the whole array of socialisation agencies.

It is pretty unlikely that much will be done about this inside academia. Family and peer group influences are simply accepted as 'givens': the usual course emphasises content with little attention to the array of experiences and influences that shape the background and learning environments of the students. Sport is routinely used to build loyalty to educational institutions, especially in the United States. Television and advertising have made fewer inroads into higher education, mainly because academics would lose some of their control over the learning process. But only a very few academics have been prominent in developing critical analyses of television and advertising, and very few indeed have been involved in active campaigns against them.

specific investigations that need to be made and practices that need to be tried out to see what it might mean in operation. In small groups, decisions can be made by consensus, a technique which has been used for millennia in many contexts, and which has been studied, formalised and refined in recent decades, especially within social action groups. Much more remains to be done to test the potential and limits of consensus.

For decision-making involving large groups, much more effort needs to be devoted to egalitarian alternatives to representative democracy. One alternative worth studying and trying out is the lot system: the random selection of formal decision-makers, as in ancient Greece or in modern juries. Another alternative is separate facilities for different groups of the population, as for smokers and non-smokers on trains.

As in the case of workers' self-management, students and academics can support efforts towards participatory democracy outside or inside academia.

Self-reliance. Nuclear power, agricultural monoculture, medical monopolies, massive transport systems for commuting: all these make people dependent on outside suppliers of goods and services and, as a result, dependent also on those who control them. Self-reliance means being able to rely on local skills and resources:

- instead of nuclear power, energy efficiency and modest local production of renewable energy;
- instead of agricultural monoculture, intensive animal production and corporate domination over food production, more local growing and processing of food;
- instead of medical monopolies, more emphasis on prevention through diet and exercise and more emphasis on community understanding and treatment of disease;
- instead of massive transport systems for commuting, design of communities to put work, services and recreation within walking or cycling distance of most people.

Self-reliance is an obvious part of the overall promotion of self-management, since it enables people to exercise more control over their local environment. Self-reliance can be a guiding concept in all sorts of fields, from communication to defence. There are innumerable research and practical projects that could be carried out to promote self-reliance. Only some of these are presently of concern to social movements. Unfortunately, more academics are doing research that promotes dependence on elites or experts than are doing research that promotes self-reliance.

Democratic socialisation. The development of personality and behaviour through living in a culture - talking to people, living in a family, working in a bureaucracy, and generally negotiating one's way through social systems - is part of what is called socialisation. Much of present-day socialisation serves to perpetuate acceptance and support of oppressive social structures - patriarchy, racism and social class are prime examples - and to encourage spe-

CHAPTERS

1	Introduction Motivation of the study. Summary of arguments. Personal background.	6
2	Academics Tied knowledge as a strategy for academics, and the many consequences of this for the nature of academia. Academic 'reforms'.	13
3	Hierarchy The internal power structure of academia. The consequences of academic hierarchy and competition. The external and internal beneficiaries of academic hierarchy. The Spautz case. Age discrimination. Challenges.	26
4	Disciplines The social construction of knowledge and knowledge boundaries. Specialisation. Academic power struggles. Interdisciplinary studies. Marxism.	45
5	Patriarchy Patriarchy as a social institution. The expression of patriarchy in academia. Challenges and alternatives.	58
6	The subjugation of students Sources of staff power. Alternatives.	70
7	Beliefs Standard academic beliefs about academia: individualism, neutrality, privilege and status quo.	80
8	The state The state takeover of higher education. The state as mediator of influences on universities. Specific uses of academic knowledge by the state. Academic adaptation to state funding. Trends influencing state-higher education relations. Alternatives to state funding.	86
9	Capitalism Capitalist influence on staffing, research, teaching and ideas. The limited impact of capitalist influence. The Ollman case.	100
10	Professions The nature of professions, and their links to other powerful groups. The case of nuclear knowledge. Alternatives to professional power.	112
11	Towards democracy? Problems with higher education. Self-management. The potential role of students, staff and outside groups.	124
12	Policy changes Examination of strategies for change via internal representation and via pressuring elites. Equal employment opportunity.	132
13	Critical teaching and research Examination of strategies for change via changing the content or form of teaching, and research. Staff and student initiatives.	140
14	Building alternatives Building alternative education outside existing organisations. Examples. Limitations.	150
15	Social movements The potential for retying knowledge by linking educational efforts with social movements.	158

INTRODUCTION

CHAPTER 1

Higher education in Australia has been shaken up since 1987. Just about every academic institution has gone through the trauma of amalgamation or possible amalgamation. Then there is the graduate tax, euphemistically called the Higher Education Contribution Scheme, a major shift away from education free to students. Also important is increasing federal government monitoring and control: the requirement that institutions provide research profiles, the transfer of recurrent funds to the Australian Research Council, regular formal assessment of scholarly performance, and the push to make higher education responsive to the 'national interest', mainly meaning service to industry and government to promote economic growth. Last but not least is the introduction of private universities.

Many academics see these changes as a disastrous attack on key scholarly values. Others are attracted by the prospects for increased funding and the demise of privilege reserved for elite universities.

But, in the wider scheme of things, are the changes really all that great? How much do they really change the day-to-day operation of institutions? Does the graduate tax drastically affect the sort of students in higher education and the jobs they enter? Before all the hue and cry about serving national needs, wasn't much of academic work of service to industry and government already, in a less obvious manner?

The aim of *Tied Knowledge* is to provide a simple yet comprehensive framework for dealing with these sorts of questions. It steps back from the rush of events and personalities to look at power structures that permeate and shape academia. From this perspective, the changes in Australia since 1987 are not nearly so dramatic as they seem on the surface.

To put my approach in perspective, let me outline some of the standard ways in which academia has been analysed. The bulk of writing relating to higher education has to do with working in the system as it is, such as how-to manuals. This includes textbooks and studies of teaching, administration, counseling and so forth. This is practical material for working in academia, but not for understanding the driving forces behind it.

Also uncritical are standard liberal treatments, which present or assume high ideals of education, scholarship and intellectual freedom as the basis for higher education. While I support the ideals, these treatments essentially serve to obscure underlying power dynamics and typically operate to justify a particular defence of or attack on academia.

The number of writings that provide a fundamental critique of higher education is much smaller. There are quite a few incisive exposés, such as Pierre van den Bergh's *Academic Gamesmanship: How to Make a Ph.D. Pay*. Such works are titillating, but provide little insight into what really makes higher

undercutting the links between higher education and these structures.

Workers' self-management. This refers to the organisation of work in ways that allow and encourage workers to determine collectively what they produce and how they produce it. This means much more than 'participation' by workers in management through representatives. Instead, workers' self-management is based on the workers themselves performing the management tasks as part of the overall work process, rather than the managerial function being separated out.

Workers' self-management usually is accompanied by extensive job redesign to mesh with egalitarian control over the work. This means more than job rotation, but rather a division of tasks that allows the development and use of skills by all workers and that also facilitates collective control by the workers.

Workers' self-management is an important challenge to present work place hierarchies, and therefore it is also an important challenge to the credentialing function of higher education which legitimates the allocation of people to particular slots in the occupational hierarchy.

One of the standard strategies used by weaker groups within academia - left academics, female students - is to get members or representatives into elite positions through promotions or through formal representation on decision-making bodies. The strategy of promoting self-management is quite different. It is based on challenging the necessity, the fairness and the effectiveness of the hierarchies in the first place.

What can students and academics do to promote workers' self-management? First, much remains to be done in the academic study of this area. 'Academic study' in this case often involves the actual promotion of self-management, for example through pilot projects and job redesign exercises. Second, academics can act as consultants and spokespeople for groups promoting workers' self-management, especially to counter the inevitable claims that it can't work, isn't efficient, etc. Finally, self-management can be promoted in academia itself. For example, at the departmental level, students and non-academic staff can be brought in as partners in decision-making. More importantly, the work can be redesigned, for example to allow non-academic staff to spend time studying and learning to do research, and allowing students to learn secretarial and administrative skills. Obviously it won't be easy to bring this about!

Participatory democracy. The catch-phrase from the late 1960s, 'participatory democracy', captures as well as any expression the aim of bringing democracy to all parts of life. This can be understood as the extension of self-management to all people, not just those who are conventionally called workers. Participatory democracy means designing child rearing, technologies, food production and so forth so that people have the opportunity and incentive to be involved in making decisions about things that affect them in their day-to-day life. This is likely to mean more local production of goods, elimination of professional monopolies and integration of learning into other activities.

Participatory democracy is still a visionary concept. There are many

sometimes after major policy demands are superficially achieved. Even when social movements are strong, there are often problems in their relations with academics. When academics in relevant research and teaching areas try to protect their positions by being 'academic', this can alienate activists. The activists - many of whom are incredibly committed, working long hours for little or no pay - are not impressed when academics prefer to write esoteric papers and restrict classes to 'safe' topics. Many activists are insulted when academics seem more interested in garnering publicity and academic credit for themselves than in helping the movement. When academics take a holier-than-thou attitude in relation to the unscholarly statements and activities of the movement, many activists choose to wash their hands of the whole academic mess.

The upshot is that activists may be reluctant to race forward to support academics in their struggles. For their part, academics often prefer to fight their battles on academic grounds, without relying on outsiders. The outsiders accept the message.

Another factor enters here: faction-fighting within the more progressive academic programs. I have seen this all too often. Internal disputes are usually attributed to personalities, but there is a good reason why progressive academic programs are more susceptible to internal splits: there is a greater variety of organisational and intellectual resources for waging power struggles. In a conventional department, the disciplinary framework and the hierarchy limit and channel the struggle for power. In a department that has some links to the ideas and membership of a social movement, a whole new array of influences enters the picture. Some academics prefer to orient their efforts towards the social issue and the movement, while others orient themselves to personal academic advancement or to industrial or state antagonists of the movement. Some academics are torn internally by different options and pressures. Some seek academic power - tenure, a promotion, control over a program - in an effort to serve what they believe are higher goals.

What lessons are there out of all this? Most obviously, the relationship between academics and social movements cannot be one way. If social activists are to gain the support of some academics, some effort is required: talking to the academics, developing ideas for useful research, formulating views about teaching content and methods. Nor is it wise to be ignorant of what academic work has already been done that is relevant to the movement. There is no point in recruiting academics if their contributions are ignored.

There is even more that academics can do: make contact with activists, seek out ideas for relevant research and teaching, and join action groups and participate as equals rather than experts. Much academic work needs to be translated for public consumption, and this is something that academics - with help from outsiders to escape from jargon-pits - can do.

Some areas for action

There are numerous areas where students and academics can become involved in social action to challenge social structures that perpetuate injustice and inequality. Here are some specific areas that hold the potential for also

education tick.

More substantial are the works that deal with the exercise of power by major groups in and out of academia. The most well known critiques of this sort focus on domination of higher education by capitalists, such as Thorstein Veblen's classic *The Higher Learning in America* and David Smith's *Who Rules the Universities?* Marxism, the critique of capitalism, provides a useful critical perspective, but has severe limitations. The categories of ownership of the means of production and class struggle just do not get one very far in understanding the dynamics of knowledge.

There is one other branch of analysis of higher education that is worth investigating. It can be called sophisticated academic analysis. This includes the occasional penetrating analyses of the dynamics of higher education that enter the specialist literature in sociology, politics and so forth. The trouble with most of this work is that it is too esoteric and detailed for providing a practical understanding of the day-to-day operation of academia. Furthermore, it is oriented to intellectual dissection of past and present systems, and not how to intervene in a practical sense. Finally, if one can get past the scholarly apparatus and the hard-to-decipher theory, it turns out that the frameworks used are often simple and limiting.

My aim is to present a practical system for understanding higher education, which can provide the tools for thinking through answers to questions such as these:

- For obtaining academic appointments and promotions, it is much more important to be a productive researcher than a good teacher. Why?
- Many members of the counterculture think that academics have 'sold out to the system'. By contrast, many conservatives see academia as a nest of left-wingers. Why?
- Most elite academics are men. Why?
- Academics who write popular articles and give radio and television broadcasts are often looked down upon by their colleagues. Why?
- There has been an increase in state control over higher education in most Western countries in the past several decades. Why?
- Academics claim that their knowledge is value-free. Why?

I aim to present a critical picture, namely a picture which exposes the dynamics of power and avoids convenient justifications for present academia and present society. I also aim to avoid the heavy theory and endless detail and qualification which are characteristic of so much academic writing.

My basic approach is to conceptualise the operation of higher education as involving a wide variety of power struggles between different groups and individuals. As a framework for these struggles, I use the standard idea of a social structure, such as the state or profession. These structures are essentially ways of talking about regular patterns for the exercise of power: they are not fixed or known in advance. They provide a convenient checklist for evaluating the ex-

ercise of power.

Within the context of each social structure, there are resources that can be used in power struggles, such as the economic resources available to capitalists. Since a range of social structures are relevant, I try to avoid theories that try to explain all problems in terms of one or two factors, such as capitalism and patriarchy.

Finally, my focus in all this is on knowledge, specifically on how knowledge is used in power struggles. Tied knowledge is knowledge that is selectively useful for particular purposes or groups. One of the basic strategies of academics is to tie knowledge which they create or use both to themselves and to other powerful groups. This idea is a continuing theme.

Chapters 2 through 10 deal with systems of power that impinge on and penetrate into higher education. Chapter 2 deals with the academic community itself and the ways in which it responds to outside pressures by favouring types of knowledge which tie powerful outside groups to academics and vice versa. The following several chapters deal with the complex power dynamics inside academia: internal hierarchy, disciplines, patriarchy and domination of students. The formal hierarchy of vice-chancellors, deans, heads of departments and so forth both enables a small group of academics to control most decisions and also allows the whole system to respond to the more powerful hierarchical groups outside academia. At the level of faculties and departments, power in academia is splintered along the lines of disciplines. Disciplinary specialists use their control over bodies of knowledge to build little empires.

Within academia, there are many groups which are in subordinate positions, including ethnic minorities, gays and the disabled. Chapters 5 and 6 deal with two of the most important of these subordinated groups: women and students.

Chapter 8 deals with the role of the state. Contemporary higher educational systems are licensed by and largely financed by the state, and in many countries tightly monitored by state bureaucracies. Chapters 9 and 10 address capitalism and the professions, which influence both teaching and research done in higher education. Academic credentials provide a way to select people for preferred occupations, a way which seems to be fair but actually reflects all sorts of biases. Academic research provides both practical knowledge to corporations and professions and also ideas for legitimating their activities.

How can academics use knowledge to serve their interests in power struggles? Basically this is done by tying the knowledge to particular groups and their purposes. For example, knowledge about a new drug will be important to drug companies, but not directly very useful to anyone else. This knowledge can be said to be tied to the interests of drug companies. But academic knowledge is usually fairly esoteric: understandable only by specialists. Therefore the drug companies are dependent on experts to utilise the academic knowledge. The companies may retain an academic consultant or hire a specialist trained by academics. The point is that the knowledge is tied both to the interests of the companies and to the interests of certain academics. Chapters 2 through 10 show how knowledge is tied to different groups as a result of power

It is clear that the mere existence of social movements can provide support for academic programs, for example in women's studies or peace studies. Furthermore, research and teaching within orthodox disciplines are influenced by social movements: since the rise of the 1980s peace movement, philosophers have found that nuclear war has become much more interesting as an ethical issue. But is there more that social activists outside academia can and should do to support academic attention to current social issues? This question raises all sorts of sticky points relating to the love-hate relations between academics and outside social activists.

Certainly there is a lot that outside activists can do to support academic programs relevant to their concerns. Activists can lobby to introduce such programs, provide advice in setting them up and in planning the syllabus and teaching methods, act as guest lecturers and community advisers, and organise campaigns to oppose cutbacks and other attacks on the programs. The support by the feminist movement for Women's Studies at the Australian National University is only one of many examples where these sorts of things have happened.

When this type of outside support is forthcoming, it provides a very stimulating atmosphere for academics. They may engage in critical research and teaching that provides useful insights for activists, even if the insights provided by the academics are not precisely what the activists wanted to hear - or perhaps especially in this case. Furthermore, social movement support is a strong bargaining tool for sympathetic academics who are trying to introduce or defend critical programs.

This all sounds very nice, and sometimes it is. But quite often relations sour between academics and outsiders. The problems stem from both sides; I'll start with the academics.

Academics who tie their knowledge and careers to relatively powerless groups put themselves in a vulnerable position within the academic system. They lower their status compared to academics who specialise within the traditional disciplines or who tie themselves to state or corporate interests. Junior academics - especially those without tenure - may restrict or jeopardise their careers by joining programs in women's studies or peace studies.

The result is that many academics try to adapt their social concern to the academic system. This means producing research in full academic dress, maintaining a 'balance' in teaching (in other words, keeping arm's length from social action), and orienting perspective's and efforts towards policy-makers in the academic administration or the government.

Environmental studies programs have been under pressure to move in this direction, especially as their more radical junior staff failed to achieve permanency, or after the appointment of conventional figures as heads of programs. Yet others have struggled on, often under severe pressures, maintaining their original orientation to social movements.

Social movements are not the most reliable of allies for academics, since many of them lose their dynamism, sometimes after failure and collapse - as in the case of the peace movement of the late 1950s and early 1960s - and

Social movement support of critical teaching and research

Many social movements have displayed a fascinating interplay between popular supporters and academic investigators. Which came first?

When the issue of the environment first became the basis of a highly visible movement in the late 1960s, it had wide popular support. (Much of this support came from the middle class, although working class communities historically have suffered much more from environmental degradation.) At that time there were hardly any academic programs focusing on environmental problems. The rise of the movement made the environment into a visible social issue, and this turned it into an academic area of study. Many environmental studies programs were set up (though many of these suffered attacks from other disciplines and from university administrations). As well, many previous research programs were relabeled 'environmental' in order to attract funds. Looking at this sequence, it can be argued that academia took up the environment only after it became a prominent social issue. Environmental studies programs were not established because academic leaders recognised the intrinsic social and intellectual importance of the area, but because widespread social concern made these programs more acceptable.

Going back a bit further, though, there were many academics working on environmental issues *before* the environment became a popular social cause. For example, there were quite a few academic ecologists in the United States who in the 1950s and 1960s did studies which provided empirical evidence about ecological problems. The studies by these academic precursors of the environmental movement provided much of the early intellectual ammunition used by the movement. In addition, some academics and other scholars alerted the public about environmental problems. Barry Commoner is one example. Rachel Carson would be another, except that she was never a fully-fledged academic. (Perhaps if she had been, *Silent Spring* would not have been written.)

So did the academics come first after all? It's not quite so simple. There were also many non-academic precursors of the environmental movement. These included numerous practical conservationists, nature-lovers, activists concerned about urban decay and many others. But the role of these people is not so obvious, since they did not leave written accounts of their concerns and activities. The academic precursors are more prominent because they put these general concerns into a formal framework which had the status of legitimate knowledge (even if it was largely ignored at the time).

In summary, there is a mutual interaction between social concern and social movements on the one hand and academics on the other. Both in the nascent stages and in the blossoming of social movements, academics can play a role by legitimating social concerns through their studies and their public statements. In turn, a climate of concern or an organised social movement can provide the encouragement or the justification for academic involvement.

struggles within and between systems of power.

Tied knowledge: tied to whom or what? My argument is that most academic knowledge is tied to both the interests of the academics themselves and also the interests associated with social structures including the state, capitalism, the professions and patriarchy. Furthermore, these structures strongly influence the nature of academic hierarchy, the division of knowledge and the organisation into disciplines, and the domination of staff over students.

Knowledge is not tied up all that neatly and tightly: there are lots of leakages in the system. This raises the question: what are the alternatives to present institutions and the knowledge that is tied to them? Chapters 11 to 15 deal with strategies to restructure academia to serve more egalitarian purposes. There are two basic approaches: to change policies and practices within present institutions and to change the nature of the institutions themselves. I look at four basic strategies: changing policies, changing teaching and research, building alternative education, and linking with social movements. Each strategy has strengths and limitations in terms of challenging and replacing the social structures that are intertwined with academia.

What is the alternative to tied knowledge? An obvious answer might be 'untied knowledge': knowledge equally useful for any social purpose or group. But 'equally useful' knowledge is hardly possible, since different groups have different resources for using knowledge. Even " $2+2=4$ " is tied knowledge, since it is more useful to the numerate than the innumerate. The alternative is knowledge tied to the interests of *different* groups: the poor, women, people with disabilities, ethnic minorities, and all those who are exploited and controlled by knowledge tied to the powerful.

My perspective on social structures, power struggles and tied knowledge is, like all other views, a partial view, and inevitably tied to particular interests. I believe that it provides some useful insights for intervening in educational systems. I can only hope that these insights are tied to the promotion of democracy in its widest sense.

Personal background

In most scholarly writing the author is a disembodied commentator, not revealing personal background or motivations. Since I don't subscribe to this picture, it is only fair that I tell something about my own background, in particular the shaping of my views on higher education.

My undergraduate days in the late 1960s were spent at Rice University, a small conservative private institution in Houston, Texas. There I experienced a traditional education, was somewhat frustrated by being required to study many things I did not want to study, and was stimulated by a few innovative courses. During the years 1963-1969 I also spent summers studying at various other US universities: Tennessee, Oregon State, Oklahoma (by correspondence), Colorado and Wisconsin. This gave me a feel for different institutions, but made it clear that there are central uniformities, at least from the student's point of view.

On moving to Australia in 1969, I spent six years at the University of Syd-

ney, four of which were devoted to obtaining a Ph.D. in theoretical physics. During this time I became more interested in educational issues. I organised a series of voluntary courses for first year students based on reading a series of research papers, along the lines of Herman Epstein's *A Strategy for Education*. I also participated in micro teaching (a teacher-training technique using video), organised discussion groups among postgraduate students about educational issues and the process of research, and developed a programme for visiting classes of other postgraduate students to comment on teaching. During this time I came up against the inertia of tradition in the School of Physics in pushing for changes in undergraduate laboratory teaching.

Also during this time I began reading in a wide variety of areas, including politics, environment, philosophy of science and education. After reading Jerome Ravetz's important book *Scientific Knowledge and its Social Problems*, I began observing myself while doing research. My concern about the biases involved in science plus my research on pollution of the upper atmosphere from supersonic transport aircraft led to a detailed examination of research papers in that area, a social research which led to an analysis of the political, economic and professional influences on science, eventually published as *The Bias of Science*.

In 1976 I went to Canberra to work at the Australian National University, initially in the Centre for Resource and Environmental Studies and then in the Department of Applied Mathematics. I confronted a variety of fascinating issues relating to educational politics. My participation in the movement against nuclear power raised issues of the relation between scholarly work and public issues. My status as research assistant and activity in the Health and Research Employees Association sensitised me to issues of academic hierarchy. My discussions with others at ANU and elsewhere exposed me to many features of academic life.

Most important in learning about academia was study of suppression of dissent. This was stimulated by participation in a campaign to gain tenure for Jeremy Evans in the Human Sciences Program at the ANU, which had been under threat since it was first mooted. After I became aware of a number of other similar cases, I began studying further and writing about the issue of suppression. This led to numerous insights into academia, and led me into personal contact and correspondence with many academics in Australia and around the world. This work led to publication of *Intellectual Suppression*, which I coedited.

During these years, as well as carrying out research in astrophysics and wind power, I studied and wrote articles on the politics of science, environmental politics, technology, peace and war, and educational issues. All of this helped keep me open to the wider connections between different areas of inquiry and between social institutions analysed from a variety of perspectives.

My involvement in the peace movement led me to write *Uprooting War*, which includes analysis of the structures of the state, bureaucracy, the military, patriarchy and science and technology as roots of war. This provided many insights into how to go about analysing academia.

and other problems which intrude into all sorts of group situations.

Learning experiences in social action groups can be incredibly satisfying at times. I have found it a great joy to get away from the academic climate in which people are more concerned to show their superiority and hide their ignorance than to exchange ideas. On the other hand, some 'alternative' learning groups can be as tension-filled and damaging as anything found in academia. Often this is due - at the surface level anyway - to the hidden agendas of individuals who use the ostensibly open and honest discussion to settle scores in a way not possible in a more formal and hierarchical format.

What are the lessons to be gained from education within social movements? The strengths of this education lie in learning for an immediate purpose which is linked more to social justice than to personal advancement, in the integration of cognitive factors with a supportive emotional climate and in the immediate social application of what is learned. The difficulties arise from the prior behaviours and attitudes of people which are often due to earlier conventional teaching and, more importantly, to the weakness of social movements generally, especially in lacking much of a political or economic base.

To promote their learning operations, social movements can and do draw on academic resources. Many of the methods used to foster egalitarian group dynamics are taken from the work of social psychologists. Much more effort could be expended examining academic studies of groups and learning in order to select out methods and approaches that can be used by social movements. This can be done by academics or social activists or, preferably, both working together. Finding and testing methods for social action groups is not something that can be done solely in the library or solely in the groups themselves. There is much scope for trying out methods 'in the field'.

Social movements draw heavily on academic research for evidence and arguments to support their causes. Look at the readings recommended by almost any social movement, from animal liberation to Trotskyists, and you will find a large proportion written by academics. Sometimes these academics are activists themselves, but in many cases they have little direct connection with the movement. There is certainly a case for members of social action groups approaching academics and asking or encouraging them to prepare materials that would be useful to the movement. Admittedly, there are not that many academics who would be willing or able to do much, but there will be even fewer if no encouragement is offered. At the least, academics can be asked to provide advice about technical details and arguments, for example to check the material in a leaflet. More committed academics can be encouraged to become active members, participating in writing and speaking on issues and sharing their knowledge with others. I have referred here to 'academics', which generally implies academic staff. But students are important contributors too. Often they have as many skills useful to social action groups as staff. What they lack is the same status.

The distinction between academics (including students) and activists is an artificial one in many cases. Quite a number of academic staff and students are themselves members of social action groups.

- using methods to regularly evaluate the group's activities.

Many such methods have been spread widely through the world via nonviolent action training which has been used especially since the 1970s in the anti-nuclear power movement and the peace movement.

On many occasions members of social movements organise themselves to do fairly conventional study of the issues. This might be learning about the history of women's oppression, about occupational health and safety or about nuclear politics. The learning process in social action groups has some great advantages over most institutional study: there is a strong personal motivation to learn the material, often there is an immediate practical application - such as preparing a leaflet or giving a speech - and there are no credentials. As a result, some of the progressive learning methods developed for academic contexts have been very successful when used by social activists.

One such technique is the macro-analysis seminar. This is a glorified name for a course of study in which the students are active participants. The study material might be on food justice or the arms race. It usually includes a set of readings. For each session in the course, students study part of the material and then report back on it to the group. The sessions are structured to encourage equal participation, using methods such as facilitation, small-group discussion, pair learning and evaluations of the sessions.

The 'macro' in the term macro-analysis refers to an orientation towards understanding the social structures and large-scale forces which cause social problems. For example, the problem of hunger can be related to capitalism, industrialisation, racism, environmental destruction and other factors.

The macro-analysis seminar as used by social activists - or simply by people interested in a social issue - draws upon many of the techniques of progressive education, such as learning by explaining material to others. It also draws upon insights from the study of small groups dynamics, such as the importance of providing a supportive emotional environment for learning. Finally, these seminars are directly related to the social concern of the participants: the motive for learning is not personal advancement, but (ideally) social justice. In this latter aspect the macro-analysis seminar as used by social movement groups is allied with the Freire approach. Indeed, the people who choose the sequence of ideas and who pick out the reading material for macro-analysis study guides are similar to those who develop the generative themes and words for teaching literacy.

Not surprisingly, not all social movement study groups produce a warm inner glow. Often it is hard to find people who want to study. Many social activists would rather protest on the basis of their gut feelings and leave the formulation of arguments to a few experts. (Indeed, one of the objectives of study in social movements is to overcome dependence on movement experts.) Another problem is the inequalities in knowledge and experience which make it difficult for newcomers to feel they have anything to contribute. This is aggravated when particular individuals insist on dominating the discussion or showing their superiority. One of the aims of facilitation and other group process techniques is to overcome the ego-tripping, guilt-tripping, power struggles

After my post at the ANU was terminated, I moved in 1986 to the Department of Science and Technology Studies at the University of Wollongong. This was a considerable shift in employment: from an elite to a second-echelon university, from primarily research to a teaching position, from a science faculty to a humanities faculty, and from a quiet backwater to a dynamic department. While the change has given me some further insights into academia, I was surprised at the extent to which the analysis of academia which I had developed earlier applied also to the quite different situation at the University of Wollongong. My correspondence with academics around the world, including educational researchers, also gives me confidence in the usefulness of my analysis.

Before beginning on *Tied Knowledge*, I carried out a series of interviews with people concerning their views on academia, focusing on individuals who I thought would have pondered the issues carefully due to their own experience. I found a lot of commonality in perceptions of academic life, but little awareness of any systematic critique of academia such as I was developing. For example, the priority given to research over teaching is regularly bemoaned by academic teachers but seldom analysed; I have found it easy to explain in terms of structures.

I was eager to write this book because I knew - having seen many others fit this pattern - that as academics rise in the system, they usually become more reluctant to make forceful criticisms that go to the heart of the system. In 1985, having spent two decades in academic institutions in a variety of roles, but still being untenured and retaining a critical perspective, I thought, I'd better write it down before I changed my mind.

Addendum, September 1997

Over the years 1985-1989 I approached more than two dozen book publishers with the proposal for this book. Although some were interested enough to look at the entire manuscript, and one obtained a generally positive report from a reviewer, none was willing to publish it. With the passing of time I lost enthusiasm to keep trying. The web now provides an opportunity to publish without having to convince a book publisher of its sales potential.

Looking at *Tied Knowledge* with the benefit of hindsight, it would have been easier to find a publisher if it had been either much more academic or more journalistic. It was not my intention to undertake an analysis oriented to scholars, since my aim was to provide a practical conceptual framework for understanding academia. On the other hand, I did think about dealing more with the seamy side of academia, but decided against this.

My aim was to provide a general analysis, especially relevant to countries such as Australia, Britain, Canada, New Zealand and the United States. But because of this level of generality, the text doesn't have all that many examples and case studies relevant to any single country.

For all its limitations as a commercial seller, I think the book has value. The framework on which it is based has served me well in the years since I wrote it.

In 1992, a review of my department (Science and Technology Studies, University of Wollongong) triggered an intense power struggle in which the rhetoric of disciplines played an important part. At one stage I circulated chapter 4 on disciplines. One of my colleagues said it was so relevant that it seemed like I had written it for that specific situation. This encouraged me. The insights that I had gained from personal experience with power struggles in mathematics and in environmental studies, plus reading and talking to people about others, turned out to be quite relevant in a completely different time and circumstance.

With the increasing popularity of poststructuralism, my approach based on social structures may seem old fashioned. Contrary to poststructuralists, though, use of concepts of social structure does not automatically lead to rigid mechanical analyses. By remaining aware of the dynamic and changeable aspects of structures, these concepts can be very helpful. In my view, they are practical tools for understanding society, and more helpful for everyday purposes than other frameworks I've seen.

My circumstances have changed since I wrote *Tied Knowledge*. Rather than being in a low-level untenured position doing full-time research, now I'm a tenured teacher/researcher and several ranks up the scale. I've gained some additional insights about the opportunities and difficulties of promoting change from within academia. But I'm happy to make this book available on its own terms.

In preparing the book for web publication, I have done some minor sub-editing and updating, reordered some chapters and added some references. Although there are some references to sources published since 1985, I've made no attempt to fully update the text.

If you have comments or suggestions, I would be pleased to hear them. Also, I would be happy to append your comments to particular chapters or the book as a whole.

References

- Herman T. Epstein, *A strategy for education* (Oxford: Oxford University Press, 1970).
- Brian Martin, *The bias of science* (Canberra: Society for Social Responsibility in Science, 1979).
- Brian Martin, *Uprooting war* (London: Freedom Press, 1984).
- Brian Martin, C. M. Ann Baker, Clyde Manwell and Cedric Pugh (eds.), *Intellectual suppression: Australian case histories, analysis and responses* (Sydney: Angus and Robertson, 1986).
- David N. Smith, *Who rules the universities? An essay in class analysis* (New York: Monthly Review Press, 1974).
- Pierre van den Burghe, *Academic gamesmanship: how to make a Ph.D. pay* (London: Abelard-Schuman, 1970).
- Thorstein Veblen, *The higher learning in America: a memorandum on the conduct of universities by business men* (New York: B. W. Huebsch, 1918).

Perhaps the best prospects for academics to be involved with 'learning for liberation' occurs within social movements. In decades gone by, the workers' education movement was a powerful force, linked as it was with the workers' movement. Workers learned in order to organise and challenge their subordination. But in the English-speaking countries at least, academic links with the workers' movement have become increasingly feeble and marginal. Many academics have working class backgrounds, but they themselves have left the traditional working class. The main social movements that now engage the interests of some academics and students are those sustained by middle-class support, such as the feminist movement, the peace movement, the environmental movement and various minority rights movements.

Knowledge and learning have played a big role in these movements. In the early years of the second wave of the women's movement, consciousness-raising groups - of women discussing their experiences, and searching out, studying and reporting on information - played a vital role. Although inequalities in knowledge and experience existed, these groups were not run by particular experts who searched out the generative themes. Rather, there was relatively little formal structure. Groups such as this continue to play an important role in the feminist movement and in other social movements.

In many consciousness-raising groups there was an explicit denial of structure. But this often hid the actual domination of the conversation and agenda by particular individuals with powerful personalities or a flair for organising support through alliances. This was called by Jo Freeman 'the tyranny of structurelessness'. The antagonism towards formal structure was partly a reaction against formal hierarchies in schools and workplaces.

The overcoming of domination within small groups comes not from trying to abolish structure but rather by creating structures that encourage equal participation and the sharing of knowledge and feelings. Many groups, of which the Movement for a New Society in the United States has been the most prominent, have tried to develop methods for doing this. Methods include:

- sharing of experiences and feelings by group members as a means for overcoming an unremitting orientation towards external tasks;
- facilitation of meetings, in which the facilitator (helper) tries to help the group do what it wants to do, rather than determining the group's direction as a chairperson often does;
- encouragement of full participation, by the facilitator inviting quiet members to speak and using exercises such as each person being allowed only a limited number of contributions;
- sharing of tasks, including the less prestigious ones of cleaning, typing and posting letters;
- sharing of skills, such as screen printing, layouts, public speaking and writing;
- learning skills through training and action, such as role-playing street theatre and civil disobedience;

taught, and who are teaching the vital and relatively unproblematic skill of literacy. But what are academics to teach to those who are already literate? Are academics sufficiently in tune with the social needs of oppressed groups and with their potential for action? An obvious problem is that the academics might just end up teaching academic approaches that are mainly useful for obtaining credentials and at most are conducive to sanitised middle-class social action.

The Freire approach is supposed to be based on a constant dialogue between teachers and students, in which everyone is a teacher and a learner. But in actual Freire-type literacy classes, the teachers determine the structure of the learning process: there is a large and perhaps unavoidable inequality between teachers and learners. Again, this may not be a problem in teaching literacy in the Third World where the teachers are fully committed to the liberation of the students - they almost have to be, to be doing this - where the source of oppression is pretty obvious, and where the skill of literacy has clear uses.

For academics, a more egalitarian approach may be suitable. It is not so obvious that academics are in the best position to determine the whole framework of the learning process for those they are trying to 'liberate' - especially when liberation from the credentialed learning process may be a prime consideration. [Helen Modra comments: "This is a red herring. Freire insists that one *cannot* conscientise somebody else. In my experience, one of the major sources of potency of the Freire approach lies in the way I am constantly made aware of the prime responsibility I have to work on my own 'liberation'. Through dialogue I learn how much I am still embedded in old ways and irrelevancies."]

Ironically, it is probably the case that academics themselves are in just as great a need of political education as anyone else. But the difficulties are great, since most academics would also need to unlearn much of the 'hidden curriculum' of academic life, including beliefs about individualism, competition, the potency of intellectual arguments and the superiority of academic knowledge.

The widespread concern about nuclear war in the 1980s led to the creation of groups of academics and scientists linked to the peace movement. These groups mainly used 'common sense' understandings of the problem in formulating their activities. After participating in Scientists Against Nuclear Arms (SANA) in Sydney, Rachel Sharp wrote an article suggesting that SANA members could learn from the insights of the social sciences and look at underlying social structures rather than symptoms such as weapons and policies. This suggestion was not taken kindly by some SANA members, who felt it reflected on their motivations! Any adherents of Freire who are planning to teach 'political literacy' to scientists have their work cut out for them.

Since writing this section, I became aware of a powerful critique of Freire's methods, written by Blanca Facundo. It is worthy of study by anyone planning to use Freire's approach.

Education within movements

ACADEMICS

CHAPTER 2

How do academics secure resources and status for themselves? Like other professions, they need to translate skills and knowledge into salaries, facilities and autonomy from outside control. The academic profession, even more than other professions, depends for its position on the value of what is claimed to be legitimate, expert knowledge.

There are two basic avenues for building academic power. One is through the teaching function, and is based on control over credentials. The other is through the research function, and is based on providing knowledge for practical applications and for legitimation.

In relation to the state, academics provide knowledge for sustaining and expanding economic and technological systems, and for building the military. Academics also provide knowledge which legitimates state power and state policies. To sustain both the power of the state and the power of the academics, academic knowledge cannot be presented in an open, easy-to-use fashion. If any group could utilise the knowledge without much difficulty, this would undercut the power of both the state and the academics. To selectively serve the state, the knowledge needs to be selectively useful to large-scale bureaucracies. To selectively serve academics, it also needs to maintain the state's dependence on academic expertise.

In relation to capitalism, academics provide knowledge to aid profits and corporate control. The same considerations apply as the case of the state.

For example, for many decades mining companies never bothered to rehabilitate mined land, and little academic study was devoted to the problem. But since the 1960s the environmental movement - supported by some academics - has helped generate community awareness and concern about environmental destruction and has stimulated governments to take action which threatens mining company profits. The companies have responded by sponsoring professorships, providing consulting work and giving access to land and data to academics who look at things from their point of view. This has provided the companies with licensed expert opinion - of 'objective' academics, not mining company employees - to legitimate existing and further mining operations. As my friend Basil Schur puts it, the main objective is not rehabilitation of mined land but rather the rehabilitation of public opinion.

In relation to other professions, academics provide training and credentials. This is valuable in regulating entry into professions and in legitimating their roles as experts. Academics also provide cognitive bases for the professions: bodies of knowledge that underpin professional practices. A cognitive base is important not only in legitimating a profession in relation to the wider community, but also in unifying the members of the profession themselves. Once again, academic knowledge, if it is to serve professions, cannot be sim-

ple, easy-to-use knowledge. It must be opaque to outsiders and dependent on academics.

All these factors influence the nature of academia. But given the complexity of the influences on academic knowledge, it should not be surprising that what happens is less watertight than the cosy picture of academics accommodating the state, capitalism and the professions. There are all sorts of leakages, failures, countervailing forces (such as workers and social movements) and conflicts of interest.

One of the important reasons why academics are less than effective in tailoring their knowledge to their own interests in conjunction with other powerful groups is that they do not they conceive their function that way. In their rhetoric for public consumption, academics claim that they labour in the pursuit of truth, service to the community and other praiseworthy goals. But many academics do sincerely believe in these things privately as well. At the same time, the collective interests of academics are served by accommodating the interests of dominant groups in society. The result often is an awkward conflict between beliefs and actions with no satisfactory resolution.

Also complicating the picture are several other important influences on academic knowledge deriving from power relations inside academia: hierarchy, disciplines and patriarchy. These are taken up in the next three chapters.

Here I sidestep many of the complications and concentrate on features of academia that reflect the strategy of tying knowledge jointly to academics and to powerful groups. This sort of tied academic knowledge maximises benefits to academics while adapting to other social structures. This single concept makes understandable a wide range of features of the academic scene.

To talk of a *strategy* of tied knowledge does not mean that academics consciously aim to adapt their research and teaching to serve these particular ends. Rather, tied knowledge mainly results from the meshing of large-scale social structures. Here I give some examples of how this happens. But much remains to be learned about the process.

Research and teaching. It is well recognised within academia that research is much more highly valued than teaching. Producing large amounts of research can help an academic to get ahead; doing no research can be a serious hindrance. Doing top quality teaching does little for an academic's career, and often it can be a hindrance if it takes too much time away from research; being a poor teacher seldom is a serious career disadvantage.

Most high status academics do as little teaching as possible, and prefer to teach more advanced students. In Australian higher education before 1987, university academics had a much lighter teaching load than academics in the colleges of advanced education, which were lower in academic status. At the top of the status hierarchy are institutes or centres where no teaching is done at all. At the Australian National University it is much more prestigious to work in one of the research schools, where no undergraduate teaching is done, than in one of the faculties. Academics can increase their prestige considerably by conspicuous research, but hardly at all by conspicuous teaching.

Modern research produces knowledge that is specialised and hence which

Then the generative words are introduced. The words - in Portuguese there are less than 17 of them - are chosen for their emotional impact and for their phonemic value in presenting all the sounds in the language. The sequence in which the words are presented is very important.

Words with emotional impact for oppressed peoples include words referring to political arrangements. Thus the literacy process is an intensely political one. Languages become a means of developing political understanding, and political action is not far away - or so it is hoped by the educators. This is why the Brazilian government was so hostile to the efforts of Freire and his co-workers.

Many Western educational theorists and activists have been inspired by Freire's approach. The big question is, how can it be applied to learning in industrial societies? There are many possibilities which have been canvassed, including:

- teaching young children to read, as has been tried in Berkeley, California;
- teaching illiterate and semi-literate adults - of whom there are millions in the United States, for example - to read;
- teaching mathematical literacy to adults.

In each case, the aim is to develop a critical consciousness in the learner and to encourage social action to overcome oppressive social structures. For example, a program to teach illiterate adults to read would be part of a wider effort to overcome the marginal position of most of these people in terms of employment and civil rights. Teaching mathematical literacy would enable many poor people to better negotiate their way through figures that crop up in jobs, welfare bureaucracies and the purchasing of goods. The Freire approach aims not just to give knowledge to the oppressed, but to link the learning process with the actual social use of the knowledge-tool. This is what distinguishes the political Freire approach from most classroom learning which is disconnected from social application.

How can the Freire approach be applied in higher education? That's a good question. Most students by this time are reasonably literate. More to the point, most students - by the fact of 'doing' higher education - are relatively privileged members of society, for whom it is harder to find politically potent concepts which can be embedded in lessons to motivate both learning and social action. Academics who try to use Freire methods with their students must confront the problem that most of the students are more concerned about marks and degrees than about their social oppression. This applies even when oppression is quite real, as in the case of ethnic minorities.

Another approach is for both staff and students to use Freire methods to teach non-academic groups, such as manual workers (including non-academic staff) and the unemployed. Even assuming that academic teachers and non-academic students could be brought together, what should the students be taught? Freire's approach is for the literacy teachers to study the community, develop the list of generative words and organise the presentation. This might be suitable for teachers who share the culture and experiences of those

are used, focusing on motivating community members to understand and act on the issues underlying social problems. The educational methods can be criticised as narrow, with the possibility of creating an educated elite.

Any one of these models would represent quite a dramatic change from usual adult education, which mainly caters for the intellectual, cultural and personal interests of members of the middle class by offering vocational or recreational courses. An orientation to working class communities means tying knowledge to a group different from the main contemporary cultural and political base for adult education and for higher education generally. (Adult education in Britain had much closer links to working class communities before World War II than it has had since.) To make the shift to serving popular social movements is an enormous step. To do this usually requires special circumstances. Some degree of organisational autonomy is important, and also an educational justification for deviating from the usual pattern of higher education. Adult education often fills both these criteria, since it is a low status, student-oriented activity which arguably must respond to its constituency. In addition, there must be some teaching staff who are committed to some form of community education and who are willing to make sacrifices to achieve it. Finally, the development of community education depends on the existence of pressing social problems and the existence of a social movement.

Even with all these preconditions, the difficulties facing 'community educators' are great. Lovett, Clarke and Kilmurray describe several educational activities in Northern Ireland, including courses in community studies, local study groups, workshops for activists, radio programs, a library/resource centre, and specific research projects. Of the four models of community education outlined above, they favour some combination of the last two, namely education linked to community and social action.

Education for social action raises some difficult questions about educational content and method. What is the purpose of the education? Is old-fashioned lecturing and setting of the syllabus justified in order to provide rigorous training for members of the working class so that they can develop critical perspectives and learn skills for taking over the running of society? Or does this simply perpetuate dependence on educational experts? One alternative is education as a more self-determined experience based on a sampling of viewpoints. Is this better even if most students choose to study things which will aid their individual advancement rather than engaging in social action?

Education as (part of) a social movement

Paulo Friere is widely known for his pioneering efforts to link the development of literacy among oppressed peoples to the forging of a critical political consciousness. Freire's approach proceeds as follows. A team of educators enters a community and learns about its culture and political situation, about the range of experience of the people and, not least, about language. They then determine a set of 'generative' themes or words. The themes may be presented to the people first - before introducing any words - in the form of pictures which are used to draw out the distinction between nature and culture.

can only be used by other specialists. Research of this type heightens the power of the researchers as well as building bonds between the specialist research community and the specialist users of the research (if any). Most research is not intelligible or useable by members of the general public, or indeed by anyone except special interest groups. Specialist research thus maximises the power and status of academics in conjunction with those interest groups that can utilise the research findings. One key use of specialist research is providing hard-to-challenge legitimisation of policies or practices.

Teaching, rather than setting up exclusive knowledge, spreads knowledge around. Rather than building up the power and status of academics, it threatens to weaken their control over specialist knowledge.

In earlier eras, teaching was more highly valued, and research was a lower status activity. This applied for example in Britain until recent decades, and still persists in some areas. Teaching could be a high status activity and serve the interests of academics as long as higher education remained the preserve of a social elite. With the ever-increasing proportion of the population partaking in higher education, teaching implies that a larger and larger fraction of the population is gaining access to once exclusive knowledge and status. As a result, both the social exclusiveness of higher education and the intellectual exclusiveness of basic knowledge in academic disciplines are being reduced, and hence the status of teaching in academia is falling. (This conclusion is subject to all sorts of qualifications: the balance between teaching and research is complicated and subject to historical, national and local variations.)

The elevation of research above teaching benefits the academic profession as a whole vis-a-vis other groups, by emphasising the role of academics as producers and interpreters of esoteric and powerful tools - namely specialist knowledge and techniques. But how does this overall benefit to the academic community become entrenched in the individual beliefs and behaviours of academics? That is hard to answer without detailed study, but it is possible to describe some plausible mechanisms.

Outside academia itself, researchers have more to offer to powerful groups than do teachers. Knowledge and advice are sought by corporations and state bureaucracies, in particular the sorts of knowledge and advice that will be fairly exclusively advantageous to them. Research thus provides a stronger claim for the value of academic work for the powerful groups that can both advance the careers of individual academics and also support the overall funding of academia. By contrast, great academic teachers - ones who can make difficult subjects clear and who can illuminate the complexities and unities of knowledge - may be worshipped by students, but this does not provide a stepping stone to greater power. Great teachers conceivably might find their skills rewarded by textbook publishers or even the mass media, but this is seldom a road to greater returns for the academic community as a whole.

The connection between academic research and the dominant users of specialist research is especially apparent to elite academics, who are more likely to be consultants for government or industry and more likely to have personal links with state and corporate elites. The lack of a similar connection with

teaching is quite apparent. In short, the outward looking elite academics know where academic strength lies in relation to powerful groups. As a result, they quite sincerely come to favour research performance over teaching in their role in appointments and promotions. In this way, the preference for research over teaching filters down from academic elites. This process can only become more pervasive as research becomes more tightly tied into national economic and political processes.

Another way in which academic preference for research can be fostered is through the direct contact academics have with members of the public. As more and more people are exposed to higher education, the mystique of tertiary training wanes and the reality of much mediocre teaching is more widely recognised. But research is highly specialised and therefore not understood by many tertiary-trained people. In addition, research is routinely associated with social benefits and 'breakthroughs' involving medicine, space and the like. Being a researcher seems more likely to bolster the prestige of individual academics.

Also, as I will describe in the chapter on disciplines, research more than teaching helps to protect the position of academic disciplines from the encroachments of other academics.

There are some contradictory aspects to academic valuation of research over teaching. Most academics will say that teaching is important, and a large number decry the great emphasis on research. But these expressed feelings are not translated into changes in actual appointment and promotion policies. The divergence can be explained by noting that while many academics might personally prefer to do more teaching, structural influences on academia promote the higher status of research. Academics can moan about the low status of teaching all they like, but unless they address the structural influences, the situation will not change.

Another intriguing point is that according to their public rhetoric academics get ahead by merit (especially research), but in reality scholarly performance, including research performance, is not as important in getting ahead as widely believed. Studies by Lionel S. Lewis and his collaborators have shown that the salaries of US academics can be predicted much better by knowing how long they have been around than by examining their scholarly performance. This divergence of belief and reality may reflect the advantage in having people (including academics themselves) believe that high ranking scholars are in their positions purely because of superior performance in specialist knowledge. In practice, a pure merit competition would be too precarious for academic elites: their performance might fall off and their positions would be challenged by hard-working upstarts.

I have taken quite a bit of space describing how the academic valuation of research over teaching is a response to the relation of academia to dominant power structures in society. The following examples trace the implications of the strategy of tied knowledge more briefly.

Student-oriented learning. The status of academic knowledge depends on its exclusiveness. Academic teaching, though of lower status than research,

ject her knowledge of the media (gained from previous work experience) was of value to the RSI support group and she has joined the committee as a media advisor and is now an active participant in the group.”]

Another problem lies in the community groups themselves. Most of them, while serving worthy causes, are quite conventional in orientation, such as the Marriage Guidance Counseling Service and the Sudden Infant Death Association. The number of community groups that take a radical political stance or action is quite small, and this limits the prospects for linking formal education projects to them. [Barbara Watson comments: “However, in 1985 we worked with a couple of community groups more actively involved in social action: Jobless Action Outreach and the Food Justice group of Friends of the Earth. In the pamphlet prepared for Jobless Action Outreach, the question of squatting as a political protest was suggested. This involved the staff and students discussing the issue of squatting in some detail before the pamphlet was finally produced.”]

The community group projects in the health education course thus illustrate the potential and limits of trying to support social movements from within the educational establishment. The projects only got off the ground through major efforts from committed staff. Even then, the educational potential of the projects has been limited by organisational requirements, by the opposition of traditional staff, and by the reluctance of many students who are uncomfortable with non-traditional approaches or more concerned about credentials. But in spite of all the difficulties, the projects do provide valuable experiences for many students and provide a continuing connection between community and educational activists.

Even if opportunities for linking education to social action exist, there are many directions to take. How can education help the struggles of oppressed groups?

Tom Lovett, Chris Clarke and Avila Kilmurray, in an extremely valuable analysis of these issues, have described and commented on four models for community adult education in the context of working class struggles in Northern Ireland.

(1) Community organisation model. Adult education is aimed at providing resources to community organisations. This offers adult working class participation in education and encourages personal development, but does not change the position of the general community.

(2) Community development model. Adult educators work in local communities and provide information and resources. The focus is on personal deficiencies. This model is limited by the assumption that problems can be resolved by improved local understanding and cooperation.

(3) Community action model. Adult educators link themselves to local working class communities and encourage radical political education. The education is ‘informal’, emphasising democratic process over content. A limit to this approach is the stress on local alternatives rather than broad social movements.

(4) Social action model. Fairly conventional adult education methods

It is usually only in certain parts of the higher education system - adult education departments, or small innovative programs or institutions - that a real link with social action can be forged. Orienting the syllabus and student efforts towards social action can be justified by their relevance to the occupational or other needs of the students. Once again, this justification is most effective in areas such as adult education, or in the training of certain professionals such as social workers. The most important stimulus to building such links is the pressing existence of a social issue.

One example of what can be done is the course in health education given at the Canberra College of Advance Education. (This account draws on information up to 1985.) As part of their studies, groups of students are expected to work with a community group on a project related to health and to provide the group with some useful educational tool, such as a set of leaflets, posters, a slide show or a video. For example, in one project in which I was involved (on the side of the community group Community Action on Science and Environment), a group of students prepared a leaflet and slide show about the health hazards of caffeine and alternatives to it. Such projects provide an educational experience for the students, since they must work together as a group, focus their learning on a particular task which they define themselves to a large extent, and orient their effort to the needs of a particular community organisation. A key part of the projects is the regular liaison between each student group and members of the community group.

This course can be seen as either radical or cautious, depending on your viewpoint! From the perspective of conventional classroom education, in which the syllabus is brought down by leaders of the discipline and in which community groups have no input, the course is quite radical. Its divergence from the usual methods has been sustained by committed teachers and enthusiastic students. For example, many of the students are so-called 'mature age students' who have worked in the health field, such as in nursing, and have been alienated by the professional model and the exclusively curative approach. The community-oriented projects can be justified as providing training for what the students will actually do, namely work with communities to promote changes in lifestyles and in the physical and social environment to eliminate the causes of ill health.

On the other hand, the course is constrained by a number of factors. The requirements of enrolment and grades mean that the project must be carefully organised and monitored. The collapse of even a single project group might be used to attack the course as a whole. For most students, involvement with the community group is a once-only affair. Some students are mainly concerned about completing the course and obtaining credentials, and their commitment to the project is nominal. But other students, who would like to get involved to a greater extent, are hampered by regulations and time constraints. [Barbara Watson, a teacher in the course, comments: "However, the potential for continuing the social action with the community group exists. In 1985, one student, herself a repetition strain injury (RSI) sufferer, was a member of a group of students involved with the local RSI support group. During the pro-

maintains the emphasis on the knowledge. Knowledge is structured around disciplines, and students must adjust their learning to the knowledge framework of the disciplines. Academic teachers are disciplinary specialists.

An alternative learning procedure is to proceed on the basis of what caters for the interests, experiences and receptiveness of individual students. In this approach, knowledge is structured around the needs of students.

The second procedure, student-oriented learning, has a lower status than discipline-based learning. Student-oriented learning puts a higher priority on the students and less on the expertise of the teacher. This is the reason why tertiary and secondary teaching has a higher prestige than primary teaching, which is usually much more student-oriented. It also helps explain why adult education, which is more likely to be student oriented in order to attract students at all, has a low status in academia.

Jargon. Jargon makes it hard for others to know what is being said. It thus protects the specialist researcher from scrutiny by others. Only the experts - those who know the jargon - are in a position to judge the value of the esoteric knowledge. Jargon thus serves to make knowledge more exclusive: it can more easily be made selectively useful for particular groups, either the academics themselves or outside groups to which they tie their knowledge. [Wendy Varney comments: "Jargon also makes others feel inadequate and undermines their right to hold opinions in matters that have been 'jargonised'."]

Jargon is only the surface manifestation of the deeper structure of esoteric knowledge. The concepts and the organisation of the concepts of specialist knowledge can also be made difficult to understand by nonspecialists. In short, the organisation of knowledge as well as the vocabulary is jargonised. [Wendy Varney comments: "The whole language of academia is such that an outsider might actually know a lot about the area under discussion but still not know what the academics are talking about."]

Sometimes jargon does make it easier for specialists to communicate with each other. That is not the issue. What is significant is that there is little countervailing pressure within academia to develop explanatory systems and language which is readily grasped by outsiders. Instead, impermeable specialist knowledge structures proliferate. The main restraint is training of new recruits and the building of power bases within specialities, which limit the advantages in the further splintering of knowledge.

Pure research. Within academia, pure research usually is more prestigious than applied research. Why? It symbolises independence from any external forces. Pure research is widely claimed by academics to be vitally important to society in the long term. Pure research is also claimed to require complete independence from outside direction. Neither of these claims stands up to scrutiny very well. But they are widely supported in academia because they provide a rationale for academic autonomy.

Applied researchers are the ones who make compromises with external influences in developing tied knowledge that serves both academic and outside interests at the same time. Much of the financial and social support provided for research comes from expectations for eventual applications. Applied re-

searchers help satisfy these expectations. But pure research is promoted because it stakes a claim of independence for research as a whole.

Popularisers. Academics who write for newspapers, appear on television or give numerous talks to community groups are almost always suspect in the academic community. This suspicion or even antagonism is usually rationalised in terms of concern for scholarly standards which allegedly are not sustained in public forums.

Some sorts of popularisation are not frowned upon so much, such as accounts of the wonders of science or the social importance of the latest discovery in an esoteric research field. This promotion of academia in the public domain may be tolerated, especially if done by prestigious academics who speak carefully and with appropriate authority.

But popularisation which shows any of the warts of academia is most unwelcome. Explaining what is going wrong in a discipline, exposing harmful uses of academic expertise, or making fun of academics: all these are considered totally out of bounds. Certainly they cannot be scholarly!

‘Scholarly’ here means dressed up in academic jargon and footnotes, so that no wider audience could possibly be interested. Any sort of critical popularisation is thus ruled out by definition as being unscholarly.

Popularisation that exposes the secrets and problems of expert knowledge is clearly a threat to the strategy of tied knowledge. The academic evaluation of ‘scholarship’ has adjusted to exclude such threats. Populisers are rejected as scholars precisely because they debase the currency of academic status. After all, academics have a collective interest in exaggerating the difficulty of their work, thus setting themselves above other groups such as manual workers.

Jørgen Nørgard, a Danish Physicist, wrote a popular and widely distributed booklet on energy efficiency. It even contains cartoons! He said that when other scientists asked him for a reference on a particular point and he said it was in his booklet, they requested some other, more technical source. They did not want to cite a ‘popular treatment’.

Public knowledge and professional knowledge. Most academic knowledge is promulgated widely: it is ‘public knowledge’, not restricted to a particular group. The aim of most academic researchers is to publish their findings in journals which are available to anyone who wishes to read them. The exceptions to the promotion of public knowledge - such as secret military research - are frowned upon by many academics.

While academic knowledge may be public, it is not *easy* to use by non-professionals. To begin, non-academics seldom know *where* to obtain academic knowledge, even if they know it exists in the first place. Often they can be intimidated by campuses and their libraries. Then there is the obstacle of jargon and specialised knowledge frameworks. Finally, the production or application of much academic knowledge requires large teams of workers, sophisticated equipment or expensive investment.

The development of academic knowledge as public knowledge in specialist, professional form serves to maximise benefits to the academic community itself. There are dangers to the position of academics from two sides: powerful

‘in the movement’ is a matter of definition. The point is that participation in social movements is quite diverse in degree and style.

There are also considerable differences in beliefs and goals within most social movements. Major differences of opinion about analysis and strategies usually exist. For example, the anarchist, socialist and feminist movements are riven by deep doctrinal splits, which are typically associated with different groups, methods of organising and sources of power or recruitment.

Social movements do provide some basis for challenging the prevailing power systems, but there are many limitations. It is wise to keep these in mind and avoid placing all faith in a precarious messenger.

- Social movements - or sections of them - often have narrow goals. For example, many people in peace groups are concerned primarily about *nuclear* war, and make appeals for *nuclear* freezes or *nuclear* disarmament. This provides only a limited challenge to the military and the state.
- Some strategies of social movements at best may lead to improvements for only a fraction of oppressed groups. For example, the strategy of sections of black movement to open elite positions to blacks may do little for the majority of blacks caught in excluded cultures of poverty and dead-end occupations. Similarly, initiatives of some environmental groups mainly serve to protect the amenities of the middle class.
- Social movements arise because there are groups of people concerned about an issue and willing to take action about it. The existence of an issue does not guarantee the existence of a social movement. A major movement arose to oppose nuclear power, whereas only limited popular action has been taken against soil degradation and no movement at all has arisen to oppose television.
- Social movements do not necessarily take a ‘progressive’ stance on an issue. Some social movements have opposed racism, others have supported it.

In spite of these limitations, social movements provide a useful place to retie knowledge. This chapter outlines some ways that activists inside and outside higher education can promote knowledge tied to community interests.

Education to support social movements

Students and academics can use their knowledge and skills to support the efforts of social movements. There are many ways to do this, most of which involve teaching and research which supports the efforts of the movements in some way.

An immediate problem arises: most academic courses contain little formal scope for supporting social action. The syllabus in chemistry, anthropology or German usually deals with academic, disciplinary concerns. Social issues may be included as examples, but this is often seen as a diversion from the ‘true’ content of the course.

Even when radical content can be added, the discussion often remains academic. No real connection with actual social movements is made.

SOCIAL MOVEMENTS

CHAPTER 15

Peace movements, feminist movements, workers' movements, environmental movements: these are examples of social movements. Such movements - composed of full-time activists, occasional participants and sympathisers - often provide a challenge to established power structures. Therefore, links between activists in social movements and in higher education often provide opportunities to retie academic knowledge.

Many social movements have arisen to challenge social structures that maintain wealth, power or prestige. This can be seen by listing some systems of power and corresponding social movements.

Power system: Challenging movement

Capitalism: Socialism, workers' control

The Church: Humanism

Hierarchy: Self-management

Imperialism: Liberation

Industrialism: Environmentalism

The military: Pacifism, anti-militarism

Patriarchy: Feminism

Professions: Deprofessionalisation, do-it-yourself

Racism: Anti-racism

Speciesism: Animal liberation

The state: Anarchism

This simple classification is meant only to point out some of the broad areas of struggle. The systems of power are more complex than any list can indicate, and the challenges are diverse. For example, there are radical, reformist and other variants of all the challenging movements.

Out of this list, the environmental and feminist movements would seem to be the strongest currently. Struggles against hierarchical power, including workers' control and neighbourhood control, are common but not systematically organised. Anarchism as a movement is quite weak, and little organised action challenging professional power from below is to be found.

There are also social movements with specific aims that also pose challenges to major power systems. For example, some initiatives of the peace movement confront the power of the state and patriarchy. Most of the major power systems are intertwined to some degree, and in response social movements often confront the whole system.

Social movements are quite diverse, and frequently it is misleading to speak of a 'movement', a term which implies a unified perspective and organisation. Within any movement there are full-time activists, others who put in considerable effort on a regular basis, others who participate occasionally, and yet others who are passive supporters. Which of these categories of people are

vested interest groups, and popular movements representing wider interests. If academic knowledge were structured as private knowledge - restricted to small groups such as individual corporations, government bureaucracies or local academic elites - then these same groups could exert great power over academics. By having the knowledge open to other scholars in other institutions and countries, common interest and mutual support is created between groups of researchers who might otherwise be divided and ruled. The sharing of professional interests in open knowledge in the physical sciences between Soviet bloc scientists and Western scientists helps to explain the important role of political dissent by Soviet scientists and the occasional support for this dissent by Western scientists.

Public knowledge serves the interests of professionals against control by powerful vested interests, but if public knowledge were too open it would undercut the control by the professionals themselves vis-a-vis various public groups, or indeed vis-a-vis other groups of professionals. Hence academic knowledge, while public in the formal sense, is made exclusive to professionals through jargon, exclusive knowledge frameworks and antagonism to popularisation.

Selective prestige of useful knowledge. I noted earlier that esoteric, pure research is highly prestigious in academia because it symbolises independence from other groups. But in those disciplines where knowledge is obviously applied, the prestige ranking is linked to the prestige of the groups to which it is most useful. For example, knowledge directly useful to employers, such as new computer developments, is quite prestigious in academia. A research finding that leads to an industrial or agricultural innovation is often touted as justification for investments in higher education. By contrast, a research finding that gives support to workers challenging hazardous working conditions is likely to be considered marginal academically.

Teaching of theory. Academic teaching has a strong orientation towards theory. Courses for example are promoted in the mathematical foundations of neo-classical economics and in the methodology of the social sciences. In most disciplines, the theoretical basis of the discipline is central to the structure of the curriculum. Furthermore, the teaching of theory - and indeed the teaching process itself - is commonly separated from practice.

The status and power of the academic profession is linked to autonomy from influential groups. Theoretical knowledge is the preserve of the academics, and hence this has greater prestige. It also helps sustain the ideology of value-free knowledge that aids academics in their bid for autonomy.

On the other hand, there are continual pressures to integrate theory and practice in teaching. These pressures can come from at least two sources. One is the advantage of tying knowledge to particular applications and to particular interest groups. The other is the realisation that learning is usually much more effective when theory and practice are linked. The result is a recurring struggle between pressures - linked to academic self-interest - to make courses more theoretical, and pressures - linked to outside interests or social goals - to structure learning around a combination of theory and practice.

For example, much of what is taught in teacher training has little relevance to the actual practice of teaching. After years of study in an academic climate, trainee teachers on entering schools often suffer cultural shock and find they must discard most of what they had learned, in theory, about teaching. Teacher training would certainly be changed if the only consideration were effective preparation for teaching. But teacher training takes place under the constraint that the training is under the control of the academic profession.

Long apprenticeship. Becoming an academic involves a long period of study and then usually a long research apprenticeship. This sequence serves to adjust students to the academic culture and to induct them into the dominant knowledge frameworks. The separation of academic training and being an academic thus serves to reproduce the academic profession.

An alternative procedure would be for learning to be structured around mutual study groups organised by students who could call in academics (or non-academics) as advisors, and for students to begin research work at an early stage in their studies. Such an alternative essentially involves breaking down the rigid sequence of study first and only later research and teaching. This alternative would undercut much of the power of academics by breaching their control over teaching and research. It would also threaten the various groups that obtain relatively exclusive benefits from different segments of academic knowledge, since outsiders from rival groups could enter into the academic system much too easily.

The long academic apprenticeship is highly inefficient in terms of learning and use of academic resources, but it does help reproduce the academic system.

Evaluation of academic performance. Like other professions, academics tightly control the right to evaluate their own performance. Appointments, promotions, publication: decisions on such matters are taken largely by other academics. (A strong qualification is that top academic appointments and allocations of funds, especially in centralised education systems, are strongly influenced by political and economic elites.) The main way in which academic work serves outside groups occurs through the tied knowledge itself: academics control their own work, but the knowledge they produce is tied. If one teaches and does research in the proper way - namely by adhering to the standard knowledge frameworks - then academic advancement is possible.

Tied knowledge thus enables academics to minimise direct control by outsiders over academic decision-making while still satisfying the demands of groups that have a strong interest in academic knowledge.

One implication of the preference for professional control over evaluation of academic performance is the dislike of teaching or research methods that allow easy evaluation by outsiders. Normally, very few ever sit in on lectures of their colleagues in order to assess teaching performance: an academic's classroom performance seems to be considered a private affair, an 'academic freedom' to teach as poorly as one likes. Teaching methods that allow colleagues or the public to examine and compare performance - such as television lectures - have not become popular with academics. Likewise, articles and books about research methods and their limitations are almost always aimed at

Joel Spring, *A primer of libertarian education* (Montreal: Black Rose Books, 1975). An excellent analysis and assessment.

orthodox criteria may very well then be inducted into the formal system by open-minded academics and administrators. The remaining independents remain outside in the cold, posing little threat to the status quo.

References

- Peter Abbs and Graham Carey, *Proposal for a new college* (London: Heinemann Educational Books, 1977). Precedents and prerequisites for a self-managing educational community.
- Paul Adams, Leila Berg, Nan Berger, Michael Duane, A. S. Neill and Robert Ollendorff, *Children's rights: towards the liberation of the child* (London: Elek Books, 1971). Includes much material on education.
- Robin Barrow, *Radical education: a critique of freeschooling and deschooling* (London: Martin Robertson, 1978). A critical analysis of the views of Rousseau, A. S. Neill, Paul Goodman, Ivan Illich and others.
- Bill Draves, *The free university: a model for lifelong learning* (Chicago: Association Press, 1980). A positive-thinking survey of free universities and learning networks in the United States.
- Alan Gartner, Colin Greer and Frank Riessman (eds), *After deschooling, what?* (New York: Harper and Row, 1973). Articles by Illich, critics and supporters.
- Paul Goodman, *Compulsory mis-education and The community of scholars* (New York: Vintage, 1964). A libertarian critique of institutionalised education.
- Allen Graubard, *Free the children: radical reform and the free school movement* (New York: Random House, 1972). A description and analysis of the free school movement and its relation to social movements.
- Ronald Gross, *The independent scholar's handbook* (Reading: Addison-Wesley, 1982). Inspirational encouragement for undertaking independent scholarship, and material on how to do it.
- Carl Hedman, 'Adversaries and models: alternative institutions in an age of scarcity', *Radical America*, vol. 15, no. 5, September-October 1981, pp. 40-51. On the need to combine adversarial and exemplary roles in alternative institutions.
- John Holt, *Instead of education: ways to help people do things better* (Harmondsworth: Penguin, 1977). Learning by doing.
- John Holt, *Teach your own: a hopeful path for education* (New York: Dellacorte, 1981). The arguments and the how-to of helping children learn outside of school.
- Ivan Illich, *Deschooling society* (London: Calder and Boyars, 1971).
- Jonathan Kozol, *Free schools* (Boston: Houghton Mifflin, 1972). A hard-hitting and practical book oriented to those who want to make free schools tools for radical social change.
- Everett Reimer, *School is dead* (Harmondsworth: Penguin, 1973). The deschooling argument.
- Michael P. Smith, *The libertarians and education* (London: Allen & Unwin, 1983). An excellent survey.

others in the same discipline or speciality. Treatments aimed at a general audience are rare indeed, and hence virtually become exposés. This is an aspect of the academic denigration of popularisers.

Private repudiation of reputations. Some academics are:

- incompetent in their work;
- incapacitated, for example due to alcoholism;
- criminals, for example manufacturers of illegal drugs or traders in protected birds' eggs;
- thieves of credit for the ideas of others.

Seldom are such academics publicly repudiated by the profession. The preference is for problems to be dealt with on the inside, which often means doing nothing about them. This is because the status and privileges of academics, like any profession, depend on outsiders believing that high professional standards are maintained. Hence incompetents tend to be tolerated, or quietly encouraged to obtain other jobs. Open efforts to expel them for inadequate performance would draw outside attention to shortcomings in the profession.

Plagiarism is the taking of the ideas or work of another and presenting them as one's own. In the most blatant form this involves using another person's writings word-for-word under one's own name, but many more subtle forms of plagiarism exist. In my examination of plagiarism cases, it has been a familiar pattern that many academics, especially those in positions of power, simply do not want to know about it. This might seem surprising given that plagiarism is considered one of the most serious scholarly sins. But many people outside academia also perceive plagiarism as improper. Exposing plagiarism publicly therefore reflects badly on academia, so attempts to deal with the problem are usually quiet inside affairs. If the plagiarist threatens to make a lot of noise, the disincentive towards taking any major disciplinary action is increased.

There is a competing influence here: the interest of non-plagiarising academics in exposing a person getting ahead through cheating. In practice, only a very few academics who become aware of plagiarism by others - even their own work - are resolute enough to challenge scholarly decorum and attempt to expose the problem. It is especially difficult for students, assistants and wives - three groups whose work is frequently misappropriated by supervisors and husbands - to challenge plagiarism, since this also means rocking the academic hierarchy.

Talent and privilege. Two of the most fundamental beliefs of academics, especially successful academics, is that being an academic requires special talent (and also more or less work) and that because of this talent academics deserve greater privileges than the ordinary person. Quite obviously, both these beliefs serve to advance the claims of academics in relation to other groups, at least to the extent that the other groups accept the beliefs too. Other privileged groups have little reason to object to such beliefs.

‘Reforms’

Many of the changes in higher education promoted by reformers can be interpreted as a way to make academia more responsive to a changed configuration of power in society. Here I make a few brief comments on how this process may occur.

More ‘relevant’ teaching and research. One of the continual debates is whether teaching and research have become too isolated from pressing social problems. Of course, this begs the question of what is ‘relevant’. Teaching and research oriented to disciplines, without much connection to applications, means that academic knowledge is not tied to any particular outside group: it is mainly useful for reproducing the isolated academic discipline. But when outside groups such as the state demand more responsiveness to their requirements, orienting knowledge to the narrow concerns of the discipline may not be a good survival tactic. The ‘reform’ orientation, promoting relevance to social applications - whether profits of corporations or the bureaucratic provision of social welfare - serves to tie academic knowledge more to outside groups. Much of the struggle between academic traditionalists and reformists centres around the question of which groups knowledge should be tied to.

Interdisciplinary studies. As disciplinary studies become more and more specialised, the usefulness of academic knowledge becomes more and more splintered. This can benefit narrow sectoral interests inside and outside academia, but groups with broader perspectives, such as state bureaucracies dealing with problems of social unrest, environmental destruction or unemployment are less satisfied. Interdisciplinary studies become necessary as knowledge becomes more fragmented. The struggle for academic reform to introduce teaching and research programmes which transcend narrow disciplinary frameworks thus aims to change the selective usefulness of academic knowledge from specialist to broader interests.

‘Radical’ programmes. Black studies, women’s studies, environmental studies, peace studies: these are some of the teaching and research programmes that have been set up, usually in response to the existence of and pressure from a strong social movement. Although such programmes often suffer attacks from other academics, at the same time they provide protection for academia as a whole. By providing niches for dissidents, universities have a potential for gaining support from, or warding off attacks from, a whole range of groups in the community. For example, strong popular pressure on the state for action against war can be partly defused by establishing peace studies and research programmes. Often such programmes serve to coopt grassroots energy and give the impression that something is being done about the issue. For academia, such programmes ensure some degree of professional control and help prevent community demands from leading to programmes entirely independent of academia. ‘Radical’ programmes usually are torn between pressures for a professional orientation, which makes the academics happier, and pressures for relevance to the demands of the social movement.

decrees that only the most talented scholars (who went through the academic system) can do important research, there are many examples of people who have done research outside institutional channels. In the United States, some prominent independent researchers are Betty Friedan, Buckminster Fuller, Hazel Henderson, Eric Hoffer, Alvin Toffler and Barbara Tuchman. It is quite predictable that academics, if they take any notice at all, will denigrate such people as amateurs, popularisers or publicists - in other words, as not being ‘real’ scholars. (This response is partly jealousy and partly protection of professional status. Anyway, who besides an academic would want to be a ‘real’ dry-as-dust scholar?) But the point is that it is quite possible to do top-level research outside institutional channels.

Independent researchers can avoid the academic problems of writing for academics and of not addressing important problems. Independent researchers have much greater scope for tying their knowledge the way *they* prefer. They can study the areas they want, work with others as they choose without pressures for quick publication, and proceed in a way that maximises intellectual pleasures.

But independent research is not easy. The main problem is money. No one will pay much for it. After years of research to produce a book, the royalties are rarely enough to live on. That assumes that the book *is* published. Without credentials, and writing in a nonstandard area, it is often much harder to obtain a book publisher in the first place. Independent researchers usually must have another job, or be supported by family and friends.

There are other problems that apply to both independent learning and independent research (which blend into each other in any case). It is quite easy to go off into your own little groove. Getting sidetracked is a hazard for any learner or researcher, but without regular feedback from peers the hazard is greater.

More importantly, independent learners and researchers are very marginalised. It is very hard to break into the mainstream. Even after publishing articles and books, independent researchers are likely to find it almost impossible to obtain academic or other professional jobs. They just do not have the credentials or suitable job histories. People who learn professional skills on the job - engineering, law, social work, pharmacy - have absolutely no chance of formal entry to the profession without credentials. It is not what you know but what pieces of paper have your name on them. This is very similar to the way in which women are marginalised by formal academic requirements and expectations. It is no coincidence that many independent researchers are women.

The lack of status in independent learning and research means that it is hard to keep going. The continual struggle to gain access to learning resources and research facilities, the difficulties in publishing material, the low status of non-institutional efforts, the acclaim given to professionals for ideas first developed by non-professionals: all these are demoralising. Banding together with other independent learners and researchers provides considerable support. But most of the cards are held by the educational institutions. The few independent learners and researchers who do ‘break through’ and succeed by

plied in other contexts. On the other hand, some small learning groups may serve more as a way for disgruntled students to let off steam than as a pressure cooker for revolutionary action.

Individual learning and research

One step down from small groups is the individual. Instead of entering or staying in the formal education system, many individuals take control of their own learning, or help others to do this.

Teaching your children. Especially in the United States, there is a large movement of parents who keep their children out of schools and provide an environment for them to learn on their own and with the help of parents, siblings, other relatives and friends. This is a major challenge to the system of compulsory state schooling. As John Holt ably documents, most of the arguments against teaching your own children reveal quite clearly the biased assumptions underlying 'normal' schooling.

Teaching yourself. Quite a few people undertake their own learning programmes outside the formal education system. The most important resources for doing this are libraries and the internet. Also useful, sometimes, are radio, television and public lectures. In many areas of knowledge, a motivated person can become an expert through personal study. Teaching yourself is an option at least from the teenage years onwards, and could begin much earlier in many cases.

Often people undertaking their own learning contact others to gain advice or to discuss issues. Learning webs are very useful in putting people with skills in contact with those who would like to learn them. Many people who teach themselves become involved in small learning groups.

The biggest obstacle to teaching yourself is restriction of opportunities by formal educational institutions. Scientific equipment and laboratories are usually off limits to those who are not students or staff. Even many academic libraries cannot be used by 'outsiders', and it takes some initiative to overcome the regulations. Another problem is that many academics and other professionals do not take self-learners seriously. Without credentials, even people with impressive knowledge and experience may simply be told to take the institution's entrance exam and work through the courses from the beginning.

Learning by doing. Most practical learning is learning by doing. This applies to people with credentials as much as to those without. Most learning takes place 'on the job' rather than in the classroom. So the question is, does learning by doing constitute any challenge to the system of tied knowledge? It all depends on what the knowledge and skills learned on the job are used for. Those who gain legal or medical skills on the job - after obtaining credentials to get into the profession - and then simply use their skills to make a living are not challenging the use of professional knowledge and credentials to bolster professional privilege. On the other hand, those who gain professional skills on the job and then share them around and expose their simplicity or their underlying value assumptions are challenging the occupational monopoly.

Independent research. In spite of the academic mythology which

Intellectuals

By most definitions, academics are intellectuals. Academics are mental workers, and most of their work is neither routine nor tightly managed. Intellectuals are also found in the professions, in the state and especially in less bureaucratised occupations such as journalism and the arts. Higher education is a key structure in the training and employment of intellectuals.

There is a considerable literature on intellectuals, some of which is quite thought-provoking. But it is hard to get very far by treating intellectuals - or mental work - as an autonomous category, since the social role of intellectuals depends on the other systems of power to which they link themselves or from which they try to obtain independence. Nevertheless, here are some general points about intellectuals which I think are worth noting for their relevance to academics.

- Most intellectuals have conventional views and lives: there is little inherent radicalism in being an intellectual. Intellectuals will orient themselves to groups offering occupational and political opportunities. Certainly this applies to academics. Studies of the political views of academics show much more variation between disciplines than any difference between academic attitudes and those of the general public. This is also quite compatible with different groups of academics tying their knowledge to different interest groups, especially the more powerful ones.
- Those intellectuals who believe in the traditional view of intellectual excellence are likely to support the independence of intellectuals from outside interests. Those intellectuals who believe in social reform and the administration of society are likely to develop ties with state bureaucrats and administrators in the professions. This difference partly corresponds to conflicting pressures to tie knowledge either to the academic profession itself or to the state.
- Social activism by intellectuals reflects their use of knowledge. Intellectuals are more likely to believe in the power of logic and knowledge to bring about social change, and hence to favour methods using information and persuasion rather than 'gaining the numbers'. Intellectuals are more likely to become socially active on moral issues, such as peace and social injustice, than to build links with working class movements.
- Those intellectuals in marginal or economically precarious positions, such as free-lance writers, are more likely to become radicalised. In academia, most of the radical activists are found among the students and untenured staff. Tenured staff - those protected by 'academic freedom' - are less likely to have any reason to support unpopular causes. (One qualification on this tendency is that the radicalism of intellectuals also seems to include a 'generational' factor, reflecting waves of conformity and rebellion.) Whether marginalised intellectuals actually do become involved in radical action depends on whether there are sufficient numbers and opportunities. Otherwise they may just drop out. Quite frequently it is the best students who drop out.
- Most intellectuals have more to gain through links with the state than with

capitalism. The general talents of intellectuals in developing ideas, providing rationales and setting up systems of rational administration have more scope in the state. Leading intellectuals are rather more likely to become inducted into the state as top bureaucrats or political advisors - or even as politicians - than to join the top echelons of corporations. Radical intellectuals have been prominent in left movements, including both social democratic parties and Leninist parties, which aim at using or capturing state power.

References

- Mary O. Furner, *Advocacy and objectivity: a crisis in the professionalization of American social science, 1865-1905* (Lexington: University Press of Kentucky, 1975). An illuminating study in the formation of social science disciplines in the US and how they were built on suppression of prominent criticism of dominant social institutions.
- Bill Hannan, *Democratic curriculum: essays on schooling and society* (Sydney: Allen & Unwin, 1985). Includes a critique of the anti-democratic effect of universities on high school curricula.
- Russell Jacoby, *The last intellectuals: American culture in the age of academe* (New York: Basic Books, 1987). A powerful argument about the negative effect of the specialist, careerist university system on intellectual life.
- Craig Kaplan and Ellen Schrecker (eds), *Regulating the intellectuals: perspectives on academic freedom in the 1980s* (New York: Praeger, 1983). Critical analyses of academic freedom in relation to professional power and outside interests.
- Gary Rhoades, 'Conflicting interests in higher education', *American journal of education*, vol. 91, no. 3, May 1983, pp. 283-327. Differentiation in higher education and the role of power differences between academic professionals and the public.
- Edward T. Silva and Sheila A. Slaughter, *Serving power: the making of the academic social science expert* (Westport, CT: Greenwood, 1984). The development of the US social science profession in the context of corporate capitalism.
- On academic merit and advancement see: Lionel S. Lewis, Richard A. Wanner and David I. Gregorio, 'Performance and salary attainment in academia', *American sociologist*, vol. 14, August 1979, pp. 157-169.
- On the political views of academics in the United States see: Everett Carl Ladd, Jr. and Seymour Martin Lipset, *The divided academy: professors and politics* (New York: McGraw-Hill, 1975).
- Case studies of academic criminals include R. Jeffrey Smith, 'Drug-making topples eminent anthropologist', *Science*, vol. 210, 17 October 1980, pp. 296-299; Clive Gammon, 'The great egg robber', *Sunday times* (London), 16 June 1974, Focus pp. 17, 19.
- On intellectuals, see:
- Robert J. Brym, *Intellectuals and politics* (London: Allen and Unwin, 1980). A useful survey of views on the political orientation of intellectuals.
- M. Cox, 'The politics of the dissenting intellectual', *Critique*, no. 5, 1975, pp.

proach is to work in small groups to promote learning which is egalitarian, self-sufficient, without credentials and with all sorts of other wonderful attributes. Quite a few such groups are set up. They go by names such as study groups, discussion groups, consciousness-raising groups and community research groups.

Some of these small groups are organised within higher educational institutions. For example, when I was a postgraduate student a group of us organised an informal discussion group on the topic of "interpretations of quantum theory". We were simply interested in the topic. While the choice of subject matter grew out of our interest in physics, it was a topic which had little bearing on professional advancement. Similarly, history students organise groups to discuss the politics of historical research, female scientists and science students organise groups to discuss the relation of women and science, and academics organise groups to discuss innovative teaching methods.

In addition, there are many learning groups set up outside the institutions of formal education. In the late 1960s and 1970s there were untold numbers of women's consciousness raising groups which played a major role in building support for feminism. There have also been all sorts of other groups, catering for workers, old people, neighbours and even family members. The topics discussed, studied and researched are incredibly diverse.

The small learning group has a whole range of possible relationships with formal structures, ranging from complete autonomy to close material and official support. Learning groups have often been fostered in various ways, most notably by 'learning networks' which provide lists of people, interests and skills.

The basic advantages of small learning groups are that they are flexible, easy to set up, low cost and not dependent on formal approval or subject to formal sanctions. People join these groups basically because of immediate benefits, which can be the practical application of what is learned, the satisfaction of learning or the pleasure of non-competitive group interaction.

The disadvantages are closely related to the advantages. The main problem is that there is no economic or political base for the groups, so they break up very easily. They often depend heavily on the enthusiasm and energy of individual organisers, and collapse when the organisers leave. Also, they often come at the bottom of people's priorities: when other obligations mount - such as formal education - the small voluntary groups lose out.

Should any of these problems really matter? The learning network, if there is one, will respond to people's needs as they are articulated. This would be a reasonable attitude if *all* learning were organised this way. But the education system is far from being a voluntary and egalitarian system. Because they are small and ephemeral, study groups provide no lasting challenge to the system which ties knowledge to powerful groups. To do this, they would require a permanent resource base and regular means for developing and applying knowledge.

Many small groups do provide an indirect challenge to formal education, since they foster critical thinking and skills in organising that can be ap-

universities with 'free' in their names but which are conventional in most respects - has been set up, is it an effective way to intervene in the complex of forces influencing higher education? There are many obstacles and pitfalls.

Any free university that looks good and attracts attention is very likely to be attacked by those committed to the dominant system. It will be dismissed as a soft option, as not rigorous, as irrelevant and as dangerous. Even more seriously, funding from government or foundations is likely to be denied, or only offered under stringent conditions. Perhaps the best prospect for obtaining independent funds is by the staff and students being involved in productive enterprises, such as growing food or selling goods, though this has its own problems, such as hostility from conservative capitalists and subordination of education to production.

Staff and students in a free university may face obstacles entering mainstream institutions. Indifference or hostility from the outside can create many problems on the inside.

To begin, most students in a free university will have had a long prior immersion in schooling. Considerable resocialisation will be required. This may take so much effort that no energy is left for much else.

Another danger for free universities is the belief in self-expression. This is often a reaction to the stultification of initiative in traditional classrooms. But 'self-expression' can become an excuse for flights of fancy and shoddy thinking. Furthermore, staff and students may become complacent and self-congratulatory, reveling in their 'alternativeness'.

Credentials provide a real dilemma. One way to proceed is to provide freedom to students but still provide credentials, which may even be recognised as significant if the free university mainly takes in talented but disgruntled students. In this case, 'alternative education' is used to promote social reform via the mobility of individual students. This approach suffers most of the defects of the approach of getting radicals into powerful positions.

If no credentials are given, a free university is very likely to have a low status. It will be marginalised and be unattractive to most students. Cutting off links to the credential system - which is a key break with orthodox higher education - also means forfeiting the status and drawing power which can be used to attack the orthodox system. But the other option, maintaining links to credentials, means adapting to the prevailing system.

A final danger is that a free university will provide space for individuals to learn and develop personally, without providing any challenge to mainstream institutions. This is a variant of the 'change the individuals' approach.

The idea of a free university is a very romantic and enticing one. Some free schools provide enormous satisfaction to those participating. But the reality almost always involves a lot of work and enormous difficulties. Many alternatives collapse due to external obstacles and to internal squabbles, leaving a trail of bitterness.

Small group alternatives

Rather than trying to establish a full-scale alternative, another ap-

5-34. On intellectual opposition in the Soviet Union.

Erik Dammann, *Revolution in the affluent society* (London: Heretic Books, 1984). Contains material on the power of intellectual elites and their antagonism to popular initiatives.

Barbara and John Ehrenreich, 'The professional-managerial class', in: Pat Walker (ed.), *Between labour and capital* (Brighton: Harvester, 1979), pp. 5-45. An analysis of the role of occupations based on salaried mental work vis-a-vis the working and ruling classes.

Eva Etzioni-Halevy, *The knowledge elite and the failure of prophecy* (London: Allen & Unwin, 1985). A hearty polemic against the pretensions of intellectuals.

Alvin W. Gouldner, *The future of intellectuals and the rise of the New Class* (London: Macmillan, 1979). Stimulating theses on the role of intellectuals.

George Konrád and Ivan Szelényi, *The intellectuals on the road to class power* (Brighton: Harvester, 1979). A valuable discussion of the role of intellectuals in social development, especially in state socialism.

Michael Mann, 'The ideology of intellectuals and other people in the development of capitalism', in: Leon N. Lindberg et al. (eds), *Stress and contradiction in modern capitalism* (Lexington: D. C. Heath, 1975), pp. 275-307.

HIERARCHY

CHAPTER 3

In many ways, being an academic is one of the most pleasant and privileged of occupations. The work can be challenging and continually raising new issues, especially research work. Intellectual work can be truly exciting. Most importantly, many academics have a great deal of control over the way they do their work: the research topics they choose, when they work and when they relax, and when a project is complete and ready for publication. In addition, they have considerable control over the way they teach their students. The combination of on-the-job freedom and intellectual challenge is hard to beat. (To this can be added: high status in the eyes of the general community, adequate or generous salary, security for tenured staff, and a belief in the value of one's work.)

But all is not perfect in the would-be academic heaven. Many academics - fortunately not all - find their job enjoyment spoiled by the unsavoury nature of competition and academic infighting. This includes fear of having one's ideas stolen or being beaten to a breakthrough, and consequent restrictions on intellectual openness. It includes petty jealousies, bootlicking and the formation of cliques, rivalry for appointments and promotions, and a general lack of personal and intellectual generosity.

Teachers or researchers who find themselves in the 'wrong' subject specialisation may find their performance subtly denigrated and their contributions in seminars overlooked or icily received. Others become embittered when credit for research findings is not shared out properly, or when promotions go to noisy self-advocates or to weak performers with friends in high places. Others are turned off by the astonishing arrogance of many elite academics who have no time for those who are not their formal peers or their protégés.

Both the intellectual excitement and the backstabbing and parochial atmosphere are part of what can be called academic culture. This culture can best be understood in relation to the structure of academia, including the formal and informal hierarchy of power and position, the division into disparate disciplines, and domination over women and students. In this chapter I focus on the factor of hierarchy.

The academic hierarchy

Universities are hierarchical. Overall control in most decentralised educational systems is vested in governing bodies - a board of trustees, a council or a senate - which includes representation from groups such as business, government and the professions as well as from the university itself. The governing body usually acts as an overseer: the details of administration are left to the officials in the university itself. It is mainly these officials who are of concern here.

teachers.

Peter Abbs and Graham Carey in their book *Proposal for a New College* describe a scheme based on the following features:

- small size;
- curriculum based around aesthetic education;
- equality of staff salaries and status;
- internal democracy (staff and students);
- work as an integral part of learning;
- practical use of skills for self-reliance, for example production of food;
- sharing of all routine tasks such as cleaning and preparing meals.

Abbs and Carey find the basis for their proposals in many vintage ideas and movements, such as Fountains Abbey, the Bauhaus and Gandhian schools and Black Mountain College, and also draw inspiration from more recent initiatives. Their proposal covers most of the alternative options above, except an active involvement in current social issues.

It is not hard to see that such an alternative education would be contrary to the basis of present higher education. For example, small size, at least if coupled with independence from standardised curricula and pressures for certification, would undermine the centralised control exercised by educational elites. A curriculum focused on social issues and involving social action would be anathema to corporations and the state. Equality of staff salaries and internal democracy would strike at the roots of the privileges of academics.

It is precisely for these reasons that radical educational alternatives are important in providing a challenge to the academic power system. But there are many problems in building alternatives even at the smallest scale. These problems need to be assessed carefully to determine the most effective way to proceed.

Jonathan Kozol in his valuable book *Free Schools* provides practical advice to those in the United States who want to turn free schools into tools for democratising society. Many of his points would apply also to alternatives in higher education.

Kozol says that a free school should be incorporated as a non-profit organisation. Either a totally democratic structure or a small, benevolent dictatorship is best. The main thing here is to avoid power struggles which can rip a group apart. Often the hardest part in setting up a free school is obtaining a suitable building.

According to Kozol, teachers in a free school should not be manipulative by refusing to teach: non-coercive education is not for everyone. Middle and upper class whites may be able to do without credentials - since they can fall back on their contacts or cultural skills - but blacks and poor people need practical skills to survive in the marketplace. Teaching basket-weaving is irrelevant. Finally, free schools usually must struggle continually just to survive. Obtaining funds is a vital task.

Even assuming that a free university - to be distinguished from many

BUILDING ALTERNATIVES

CHAPTER 14

Considering all the difficulties in democratising education through policy changes and through critical teaching and research inside existing institutions, it is not surprising that many people have decided that it is better to build alternatives from scratch. There are numerous examples of educational alternatives, of which the free school movement is the most visible. Indeed, experimentation to create more egalitarian, 'client-oriented' structures is more common in the educational sphere than almost any other area. My aim here is not to catalogue the many wonderful, exciting, uplifting and laudable initiatives that are alternatives to conventional higher education, but rather to comment on some of their strengths and weaknesses as part of a strategy to challenge oppressive social structures. I look in turn at alternatives at three levels: whole organisations, small groups and individuals.

Large-scale alternatives

Many mainstream educational institutions have been established with one or more 'alternative' features. The British 'plateglass' universities were set up to go beyond discipline-based study, but they soon succumbed to pressures for disciplinary divisions. The difficulties in sustaining even a few nonconventional features are great. Therefore some educators have looked to a radical restructuring of the form of higher education. Some of the options are as follows.

- Subject matter would be focused much more on social issues such as poverty, discrimination, peace and industrial democracy. Treatment of these areas would be integrated rather than broken up into disciplines.
- Theoretical study would be linked with social action. Industrial democracy would not be studied just through textbooks but also by interaction with workers at the workplace.
- Certification would be separated from learning. Achievement in learning could be registered by recommendations and by visible achievements such as essays.
- The class, gender and ethnic basis of education - the orientation of the form and content of education to the needs of white middle and upper class males - would be changed to make learning useful and attractive to all.
- Learning would become much more a part of life, rather than something separate from and largely irrelevant to other parts of life such as work and leisure.
- Individuals and groups would be encouraged to become independent learners, no longer dependent on injections from curricula and control by

At the top of the pyramid are the chief executive officers. The top person is a president or vice-chancellor, and then there are various deputies. Also high up are deans. These top figures are usually full-time administrators. Their power comes from their influence on allocation of money and resources, and on appointments: which departments can appoint new staff and obtain extra travel funds, which individual academics are appointed to powerful committees, which applications for promotion or for teaching initiatives are granted. Individual academics who make enemies within the administration can look forward to a life of frustration.

Next in the line of power are the professors or heads of departments. Individually these figures have a major voice in departments, and collectively they have a strong say in many wider decisions. The major professors often have a major input into decisions about salaries and grant applications, and have a strong influence over curriculum decisions and the allocation of teaching.

The rest of the tenured academic staff fill the next level of the hierarchy. They have considerable control over the details of their own research and teaching. Collectively they may have a voice concerning curriculum and appointments, especially at the level of the department and sometimes at the level of the faculty (a grouping of related departments).

Below the tenured academic staff lies a weaker and more splintered group, the untenured academics. This includes academic teachers on fixed term positions or paid on a per-hour basis, and researchers supported by research grants ('soft money'). The untenured academic staff have less power because they are more vulnerable to the cutting off of their positions or funds. Their careers depend sensitively on the good graces of powerful tenured academics.

This pretty much exhausts the list of those with significant power inside academia. In the minds of some academics, the top administrators and professors plus the academic staff are about all the people there are in 'academia'. But actually this group comprises only a small fraction of those in the academic system. Three groups in particular have been omitted: non-academic staff, students, and outside services.

Non-academic staff usually outnumber the academic staff. The category of non-academic staff typically includes librarians, clerical workers, secretaries, technicians, research assistants, counsellors, typists, maintenance workers, gardeners and cleaners. In most cases, such workers are not treated as part of the intellectual community: their jobs are little different from similar jobs in other sectors. The non-academic staff exert little power within academia in spite of their essential contribution to scholarly endeavour. When the non-academic staff are unionised, they may be able to press successfully for better wages and conditions, but this is about the extent of their collective power.

Students form the bulk of the university population, yet they have little power within the system. Sometimes there are student representatives on departmental committees or on governing bodies, but the numbers are seldom large enough to sway major decisions. Students may have a small impact on course offerings and methods of assessment. But to have a significant impact for example on the syllabus requires a major student initiative, which even then

may be unsuccessful. Organised boycotts of particular subjects or teachers are rare events! Essentially students are consumers who have little say in what is produced or how.

Actually, it is the students which are one of the major 'products' of Academia, Inc. Who ever heard of the goods on an assembly line telling the workers or management what to do?

There is yet another powerless group tied to academia, which I call the 'outside services'. These are people who provide support for members of the academic community or for their activities, but who are not seen as members of the community itself. The most important members of this group are spouses of academics and parents of students. They provide material and emotional support, and often specific aid in academic efforts. Also in the category of outside services are workers in businesses near academic institutions, local health and welfare workers, and children and other family members of staff and students. Most of these people have little or no influence within the academic community.

The actual details of academic hierarchy vary quite a lot from country to country and from institution to institution. For example, professors and heads of departments in universities in the British system are much more powerful than other academics, whereas in the United States the academic staff within a department are commonly more equal. Likewise, the power of the chief executive officer depends a lot on the configuration of deans and heads of committees through which decisions are formally made. The point here is not to describe the details of the internal power hierarchy, but to emphasise some of the consequences of the existence of such a hierarchy.

Two roads to power

The academic hierarchy, like other hierarchies, is a system in which people exercise power not by virtue of their personal talents but by virtue of the position they occupy. In some cases respect for an academic's views will give that person influence even though she has no commensurate position of power. But by and large the hierarchy is built on the exercise of power based on formal position and informal alliances, not on respect for the individuals in the positions. I say more about this later.

Since power, prestige and income of academics are derived mainly from their positions in the formal and informal hierarchies, there is keen competition for appointments and promotions, for positions on advisory committees and editorial boards, and as well for gaining the ear of powerful figures. (This competition is often subject to the constraint that academics must not be *seen* to be too ambitious.) There are two separate but interconnected ways to rise in the academic hierarchy. One is based on the local political system and the other on the wider research community.

The local political system consists of the formal academic posts and the myriad of committees through which institutional decisions are made. The way to get ahead through this system is to be a proper politician or bureaucrat in the local institution and to build up support from others in the system. Sitting on

also have much better prospects if they are linked with community groups that are concerned about academic teaching and research.

References

- David Boud (ed.), *Developing student autonomy in learning* (London: Kogan Page, 1981). Useful ideas on helping students to take control over their learning.
- Adam Curle, *Education for liberation* (London: Tavistock, 1973). A valuable attempt to integrate radical ideas on education with nonviolent strategies for changing oppressive structures.
- Peter Dreier, 'Socialism and cynicism: an essay on politics, scholarship, and teaching', *Socialist review*, no. 53, September-October 1980, pp. 105-131.
- Jerome R. Ravetz, *Scientific knowledge and its social problems* (Oxford: Clarendon Press, 1971). An analysis of the scientific research process, raising the idea of critical science.
- Ira Shor, *Critical teaching and everyday life* (Montreal: Black Rose Books, 1980). Valuable ideas for critical teaching within the conventional classroom structure.
- Jane L. Thompson (ed.), *Adult education for a change* (London: Hutchinson, 1980). Radical viewpoints on adult education.
- Alan Wolfe, 'Radical intellectuals in a conservative time', *New political science*, no. 5/6, winter/spring 1981, pp. 7-19.
- On Herman T. Epstein's method see his *A strategy for education* (Oxford: Oxford University Press, 1970).

ple who are not socialised into the academic mode, and this makes genuine collaboration very difficult. Arguably, academics have as much to learn in such an interaction as non-academics, especially in learning the practical realities of how the world works and how academics can communicate outside their own speciality. But this advantage is usually dismissed compared to the importance of maintaining academic standards and maximising individual returns from intellectual effort.

Student initiatives

So far I have talked about critical teaching and research as things to be introduced by members of staff. Staff are in a relatively strong position to make initiatives in these areas if they want to, although that is seldom enough. Students who want to have critical perspectives included as part of their studies are in a much weaker position to press their claims.

One basic approach by students is to mount pressure-group campaigns to change the content or methods used in their courses. This can include talking to staff members, writing letters, organising petitions, working through official committees, and organising demonstrations and occupations.

Student campaigns have a much greater chance of success if there is some degree of staff support (which may be linked to a wider concern in the general community). If academic staff are mostly united against student demands, students usually can be held off or diverted. Sometimes staff simply say “no” and do not attempt to provide a reasoned defence. Other times staff and administrators may use tactics such as claiming that there are no suitable staff to teach a course, promising consideration of the issue next year, forming subcommittees, or allowing a token course to be taught by a marginal or incompetent staff member. Because students are transient members of the academic community, it is hard for them to organise to maintain concern and pressure and to overcome these stalling tactics.

Another problem is that students may become diverted onto issues which are not central to curriculum and teaching methods. One prominent example is assessment. In Australia much student effort has gone pushing for more student control over how they are assessed. The result has been a shift from end-of-year exams to ‘continuous assessment’, occasionally with more student say over the types of assessment used. If anything, the shift to continuous assessment has reduced control by students over how they learn, and their marginal participation in decisions over assessment has had little impact on what is taught and how.

Students also can push for more participative, student-centred teaching/learning methods. Once again, the teacher has much more power to introduce change; with a recalcitrant teacher, student demands can be readily sabotaged. The other problem is that most students in the core subjects are more concerned about passing courses than with what they are learning. The best chance for student pressure to influence teaching methods is in critical programmes, such as women’s studies, in which both the staff and students are much more likely to be there because they want to learn. Student initiatives

committees is essential. An aspiring young academic might volunteer for membership on the library committee, help to organise departmental seminars and perhaps become active on the local branch of the staff association. These positions might be replaced after a few years by others, to gain experience (and contacts). Later, after a promotion, the keen aspiring power-broker might become involved in a staff training programme, become appointed to a powerful faculty resources committee and perhaps if lucky take a turn as acting head of department. After further experience and another promotion, the future might hold a deanship or some other full-time administrative position.

The local political system is built on service (putting in time) and on cementing alliances. Power in the political system centres around control over resources, in particular allocation of money to departments and to individuals, and hence control over the working lives of other academics.

Modern academia might not be much different from some other bureaucracies except that there is a competing system through which people may rise to power: the research system. An academic who publishes in respectable journals and who becomes known to leaders in the discipline through conferences and visits can thereby gain access to power. This power is power based on credit for academic contributions rather than based on control over money and resources. It involves things such as refereeing papers, editing journals, organising sections of conferences, consulting for government and corporations, serving on grant-giving bodies, sitting on publications committees, training many students and obtaining membership in prestigious societies.

The research system is based on advancement within an academic discipline. The system of disciplinary power cuts across the individual institutions. Productive researchers are sought after, at least by the more research-oriented institutions. By concentrating on research and building up prestige and contacts in the discipline, an academic can look forward to research funding, lucrative consulting and promotions.

An important factor in the research system is the status hierarchy of different institutions. Most academics have a fairly clear idea of whether one campus is ‘better’ than another. This status hierarchy ranges from elite research-oriented universities down to vocationally-oriented technical colleges. The status of academics depends as much on where they obtained their PhDs and where they are working as on their actual performance in research. (Teaching of course is irrelevant.) Progress in the research system usually requires moving to a more prestigious institution.

The local political system and the research system inevitably overlap. Many locally-oriented academics publish at least a bit of research, and most research-oriented academics are involved in some administrative duties. Nevertheless the basic difference remains. One system is based around the local hierarchy and the other is based around the worldwide (or at least country-wide) group of researchers in a discipline.

Sometimes the interaction of the two systems causes difficulties. From the point of view of research performance, the local hierarchy often is seen as an obstacle. A productive but individualistic researcher may rub the local elite

the wrong way, and hence be faced with a heavy teaching load, petty hindrances to research efforts and slow advancement. The solution for the researcher clearly is to escape the local hierarchy by seeking a job elsewhere through the research system. The result is that some institutions become rigid with time-serving bureaucrats.

The other side of this process occurs when a successful researcher is brought into a department over the top of the local candidates. In this case the research system serves to undercut entrenched hierarchy, and a shift in the basis for local advancement may occur.

This account may give the impression that local hierarchies are necessarily narrow and rigid while the research system is open to 'pure talent'. It's not quite that simple! Local hierarchies may indeed be the scene of sordid intrigue, but they can also be tolerant to some degree of diversity, and allow academics to get on with their ordinary teaching and research without too much disturbance. The research system is competitive and contains its own share of power plays and nastiness.

It is revealing that the only two real roads to academic power are research and administration. Teaching holds no prospects for gaining significant power. Furthermore, to be acceptable, research and administration must fall within fairly narrow bounds. Research must be academic research within the discipline, oriented to the needs of the profession and its most influential patrons. Doing research linked to the interests of unemployed action groups is not a road to power. Administration must be carried out within the hierarchy as it exists. Initiatives to increase student power are excluded.

Some consequences of hierarchy

The prize is advancement: power, prestige, a high salary. A small fraction of academics obtain the top prizes. Many others only rise to, or prefer to settle for, some middle-level position. Others lose out entirely. But aside from individual success or failure in progressing through the hierarchy, the consequences of hierarchy itself are felt by nearly everyone.

Conformism. To get ahead in the local hierarchy, an academic needs to conform to the basic features of the system: the hierarchy itself (including the hierarchy of knowledge), the standard routines of administration and the social niceties needed to keep on the good side of influential individuals. A bit of academic eccentricity is all right, but any challenge to the basics of the hierarchy is a prescription for being marginalised.

Advancing in the academic hierarchy depends on fitting in socially. An academic's personality, interactions with colleagues, and spouse are all scrutinised. Anyone who doesn't fit in - often women, singles, lesbians and gays - has extra difficulties. Loyalty to colleagues, especially those in powerful posts, is expected.

A junior academic would scarcely think of openly questioning the competence of the departmental head, unless influential support was at hand in the attack. The basic procedure is to suffer incompetence quietly. The alternatives are to manoeuvre to outflank the incompetents or, less daringly, to use their

are drawn from students coming out of social studies of science courses. (This account was written before I obtained a job in social studies of science!)

The way in which critical research is done involves more than how the results are published. The relationship between researchers who are working together are important. Breaking down hierarchies and working as a team - which is quite compatible with acknowledging differences in knowledge and experience - is a challenge to common patterns which often involve domination and exploitation. Doing research in an egalitarian way is especially important when the research has a critical thrust and is likely to attract criticism. When co-workers are treating each other as equals, group cohesion and individual commitment are improved, and hence attacks are less likely to splinter the group. Developing such cohesion and commitment is not easy in academia, where the temptations of individual advancement and prestige often have a corrosive effect.

Involving undergraduate students in research work provides a means for linking critical teaching and research. In most fields, very little background knowledge is needed before apprenticeship training in research can begin. For example, Harold Johnston at the University of California has co-authored many papers in chemistry with his undergraduate students. Gary L. Huber has reported the success of high school students in doing specialised medical research, and publishing papers. I have some experience in this vein, working with a number of undergraduate students over summer holidays on physics and, years later, social science research. Another approach is the study research papers under the guidance of a researcher in the field. The method was developed by Herman T. Epstein for first-year biology students, and has been used in many fields successfully. It certainly provided me with my most exciting moments in teaching physics.

Integrating research into the undergraduate course of study is essentially a way of breaking down the artificial distinction between study and application in the usual academic sequence of undergraduate study and postgraduate research. Integrating research and learning makes a lot of sense educationally, but it is a serious challenge to academic control over students and over the credentialling process. It also helps overcome the banking form of education in which the teacher is not a joint investigator with the students.

Involving outsiders - non-academics - in research is an even greater challenge to the usual way in which research is carried out, since it throws into question the professional claim to exclusive ability and right to use academic resources for research. The usual academic involvement with outsiders is as clients or subjects, such as the groups who answer the questionnaires of social scientists or participate in psychological experiments. When outside collaboration is carried out, it is usually with trained professionals in other institutions, such as government scientists or practising lawyers. Much less common is collaboration with outsiders such as trade union officials, social activists or freelance writers, not to mention shop floor workers, housewives and clerical employees.

There is an enormous cultural gap between most academics and peo-

carry it out sometimes occur, a more frequent problem is encountering obstacles in further research and in one's career. Those who do critical research often have difficulties obtaining research funding, appointments and promotions.

One response to the danger of suppression is to carry out critical research in full academic dress, so that the work cannot be criticised as unscholarly. Often it is attacked as unscholarly anyway! But this method of avoiding suppression introduces another danger: becoming too academic. Critical ideas and comments that are hidden away in the bowels of academic journals or embedded in piles of statistics or indigestible argument seldom have a critical impact. To have an effect, critical research needs to be available and understandable to the individuals and groups who can use it. Therefore, the form of research as well as the content needs to deviate from the academic norm.

To make the results of research available and understandable to a wide audience means publishing accounts in newspapers, popular journals and readable books, and on radio and television. This challenges the normal professional control over knowledge and hence is seen as unscholarly even when the content is not critical. One way to proceed is to publish academic-style papers in professional journals and also to publish popular accounts elsewhere. This can help limit denigration as being a populariser, at least in some circles.

The potentials and limitations of critical research in academic form are illustrated by work on the sociology of scientific knowledge in Britain. Quite a number of academic researchers in Britain have developed a far-reaching critique of scientific knowledge. For example, they have studied cultural influences on the development and content of scientific knowledge, and the ways in which beliefs are 'negotiated' through social interactions. Some of them have argued that scientific knowledge cannot be distinguished from other belief systems (such as magic used in some African tribal cultures) by 'objective' criteria such as accuracy or coherence.

Many of the ideas developed by these researchers are deeply subversive of standard views about science. But the ideas are mostly presented in academic form, typified by the style of the key journal *Social Studies of Science*. This has greatly limited their impact on the scientific community. Many of the researchers are not concerned about this: they are aiming at establishing their own professional status as rigorous scholars.

Nevertheless, the ideas do leak out of the academic container. Some of the researchers write more popular articles, and deal with current issues such as genetic engineering. These more activist scholars serve to translate and popularise critical ideas. Another avenue for release is through students who take courses in social studies of science. Some of the more accessible treatments in the field are written especially for students. Finally, there are some practising scientists who are willing to plough through the sociologese and grasp the ideas directly.

One reason that critical social studies of science have been somewhat open to use by non-specialists is that it is a new field, and many researchers are actually natural scientists who switched to social studies of science. But this will happen less often as the area becomes more professionalised and recruits

good favour to get ahead.

Advanced degree students, for example, are very dependent on the good graces of their supervisors. If they refuse to defer they risk the destruction of their whole careers. (I have been told of numerous cases of victimisation of advanced degree students, including taking credit for students' work, bias in examining theses and the circulation of damaging rumours.) Most academic staff are afraid to do anything which might offend the administration and get them into the administration's dossiers, thereby jeopardising their prospects for promotions and perks. The result of the hierarchy is conformism. Most academics after all have to live in the local hierarchy, and for most of them rocking the boat is not worth the unpleasantness it generates.

Snobbery. Perceptions of what academics say and do are shaped by what position they hold. Contrary to the ideal of the academic community of scholars, formal status deeply affects the informal status system. A friend of mine, a tutor for several years, became a temporary lecturer one year. Suddenly he was 'somebody': academics in nearby offices began talking to him. Then he went back to being a tutor, part-time at that ... and a 'nobody'.

In seminars, I have observed academics in high positions make critical comments and be listened to carefully (if not agreed with). But when a junior staff member or student makes a similar criticism, this generates considerable hostility. How dare *she* say that!

Formal status is very important to academics. Having a degree from Cambridge or Harvard is a great advantage. A colleague with the same teaching and research performance but with a degree instead from Southwest Texas State or a London polytechnic has nothing like the same status or prospects.

Local intrigue. The local hierarchy generates an enormous amount of gossip, backstabbing and denigration of those in opposing cliques. Some academics gain a great deal of satisfaction in putting down others in petty ways. For example, a department head may write a bad reference for a staff member who is seen as an upstart (namely, someone not suitably deferential). A faction within a department may ensure that its supporters have larger chairs in their offices. An enemy may be denied the full amount of a request for equipment. A department may design its courses to undercut the effectiveness of a rival department's offerings.

Local intrigue is often seen as due to the defects of individuals, and academics will readily point to the obstinacy and bitchiness of certain others which cause the whole process to proceed. But the problem is much more fundamental than this. The academic power system is hierarchical, providing resources to those in power. Yet it is not a rigidly bureaucratic system. Rather than subordinates being kept in their place, there are many cross-cutting avenues for influence. In particular, a key element in academic power struggles is scholarly status, which is related to one's discipline, one's speciality, one's supporters, one's personal bearing and presence, one's formal position and one's achievements. Scholarly status is 'negotiated' to a considerable degree. It can be enhanced by convincing others of its importance, and by organising others to support it. The uncertain and vulnerable nature of scholarly status

combined with the systems of formal position result in an ongoing struggle for power and prestige. The struggle is often so petty that 'intrigue' is a complimentary description.

One of the standard ways in which academics exploit the power system is to prevent challengers getting ahead. For example, an academic who climbs to high posts via the local political system may enjoy getting onto appointment and promotion committees and obstructing the careers of those who are 'unstable', are 'too aggressive', do 'superficial' research, or are not 'committed to the department' - namely, productive scholars in junior posts who threaten to upstage their superiors.

It is possible to look at the bright side. One academic, after hearing several stories about pettiness, arrogance and backstabbing, commented, "But just imagine how bad it would be if they weren't all scholars dedicated to the pursuit of truth!"

Cheating. Stealing, fraud, plagiarism: these are seen as egregious sins for academics. Yet available evidence suggests that they occur much more often than generally recognised. There are quite a number of documented cases of serious cheating: stealing of credit for the ideas of others, altering experimental findings or creating them out of nothing, and copying the writings of others. These are the extreme cases. At a less serious level, a substantial proportion of scientists stated in a survey that work of theirs had not been given reasonable credit in the writings of other scientists.

It is easy to understand why cheating is considered a serious offence within academia. It is a threat to the careers of other academics. It challenges the legitimate processes for the licensing of credit for knowledge creation.

The question here is, why does cheating occur at all? One of the most important reasons is the intensely competitive atmosphere in branches of science and academia. Many scholars are caught up in beliefs about the necessity to publish and to be original, but are unable to achieve according to their own expectations or those of bosses. One result can be cheating.

Actually, cheating is only the most blatant result of competitive pressures. Another more pervasive consequence is shoddy research: work which is rushed into publication at a preliminary stage, without careful checking and often without adding much to what is already in the academic literature. The whole publication game, with the ever-cheapening currency of published work (in which quantity counts more than quality), owes a lot to the pressure to get ahead or simply survive within the academic hierarchy.

It would be easy to reduce cheating effectively, namely by providing mechanisms to investigate alleged cases and by publicising names and details about offenders and offences. But such mechanisms seldom exist, and this procedure is seldom used. Academics may oppose cheating, but they do not want it publicised widely, because that would damage the credibility and status of the profession as a whole. In one widely publicised case in the US, the cancer researcher Elias A. K. Alsabti built a career on copying other people's papers in full and getting them published. When he was found out at one institution, he was quietly let go, and he then moved on to another place. The individual

experiments, may only serve to make a pointless process a little more sugary.

Critical research

Academic freedom, in one of its senses, is supposed to allow scholars to pursue their inquiries without fear or favour. But very few academics actually do any research which has more than the mildest critical edge. This is due to the social definition of acceptable and scholarly research which is conditioned by the academic disciplines and the standard paradigms, and by the main sources of patronage and areas of application. Before the rise of the animal liberation movement, the 'freedom' of academics to study - and hence expose - cruelty to and exploitation of animals through factory farming and scientific experimentation was seldom taken up. Likewise, using one's academic freedom to study Gandhian economics or psychic phenomena still remains a sure way to limit one's future career prospects.

Precisely because critical research is so seldom done, it can be one of the more effective ways for academics working inside the system to challenge knowledge tied to powerful groups. Critical researchers can use the system against itself by using the public perception that claims about knowledge made by professional credentialed scholars are more legitimate than the same claims made by other people.

What sort of critical research can be done? The possibilities are endless.

- Analysis of inconsistencies and biases in government policies.
- Evaluation of dangers from food additives, herbicides and drugs.
- Exposure of military applications of other research work.
- Study of hazards to workers.
- Analysis of possibilities for local decision-making.
- Study of environmental dangers and their social roots.
- Development of strategies for promoting the interests of minorities.
- Exposure of value judgments in allegedly value-free scientific research.

In doing critical research, there are a number of dangers and pitfalls. On the one hand is the danger of suppression: vested interest groups may attack the researcher or the results. Often the attacks come from inside the university and are mounted by administrators or academics who see critical research as a threat to the usual way in which academic knowledge tied to particular interest groups. An example is the attempt by academics within the Australian National University to block publication of the book *The Fight For the Forests* by Richard and Val Routley, which was very critical of forestry planning and practice. The primary outside groups threatened by the book were the forest industries and the state forest bureaucracies. But the attack on the book was largely mounted by a few academics associated with the Forestry Department within the university.

Although direct attacks on critical research and the academics who

ture". It is revealing that student-oriented learning or control of learning, and other educational innovations, are more often tolerated or encouraged in 'fringe' topics. Student control in 'core' areas such as physics, political science or psychology is less common. The reason is that academic power is based on control over knowledge and credentials in the core areas. Greater student participation is less of a threat in fringe topics, especially if it helps prevent discontent from boiling over.

In some cases greater student participation is introduced in core areas for the top students, namely those who are already committed to the discipline. These top students might otherwise rebel against tedious orthodox teaching and go elsewhere.

* * *

Student-oriented teaching and student-controlled learning are a challenge to staff control within academia. Those staff who promote these alternatives essentially are linking with the students rather than with disciplinary or administrative power.

Those staff members who push for greater student participation in learning have one important argument: most students learn much more when they are actively involved in controlling their own learning rather than being passive recipients of material provided by teachers. Yet this argument wins the day only in a tiny minority of cases. There are two sources of opposition.

First, the most powerful academic staff usually have an interest in ensuring that teaching is oriented primarily to the discipline, not the students. A large proportion of staff prefer to maintain their power over students. Also, overall professional control depends on putting students through hoops in order to obtain credentials. These priorities come first.

The second source of opposition to student control of learning is many students themselves. Due to their experiences in primary and secondary school, most students are accustomed to getting ahead by doing what the teacher demands. The top students are often the most adept at this. To be thrown on their own devices and expected to help fellow students to learn clashes with this whole pattern of socialisation. The innovative teacher often must deal with sullen or recalcitrant students who expect or demand to be told what to do, and who sabotage exercises in collective learning.

Much effort and ingenuity has been expended in trying to overcome this 'fear of student freedom'. Many course innovations, or entire universities, have been introduced to promote greater student participation in learning. The fly in the ointment is credentials. A typical irony is that individual teachers or entire faculties may attempt to stimulate student control over learning by fiddling with details of the assessment system. Abolishing credentials would be going too far!

For these reasons it is important to remain skeptical of initiatives to make students more interested in learning. If the material to be learned is irrelevant to any practical situation and is only there because of the need to fill out a degree, it is natural for students to become bored and cynical. Teaching innovations, from visual aids to student choice over essay topics or laboratory

researchers did not want to trumpet the message, "There is a plagiariser in our midst." Alsabti's amazing career was only halted after his exploits were widely publicised by science journalists.

The net result is that the combination of local hierarchy and research-based advancement leads to substantial amounts of cheating, but the protection of professional status limits open discussion and opportunities for redress.

It is common for supervisors to put their names as joint author on publications reporting work by their students, even if the student did most or all of the work. I have been informed of so many cases of this that I've lost count. Sometimes the student's name only appears in the acknowledgments, or not at all! This type of exploitation is a direct result of the hierarchy. Students are seldom willing to speak out about it because they depend on the recommendations of their supervisors. Also, what administrator would side with a student against an established staff member?

Secrecy. As I argued before, academics favour open publication of results because this prevents the profession being dominated by special interest groups. Scholarly work is kept most secret when researchers are most dependent on a particular powerful group, such as the military. The contrary danger to academics in open publication is that non-academic groups will be able to use the knowledge without dependence on the researchers. This is overcome, in part, by jargon and by orientation of the knowledge to the interests of powerful groups.

The academic hierarchy and the research system are further complicating factors in the complex of conflicting pressures for secrecy and openness. Individual researchers and research teams depend for their status and for their continuing access to research facilities on receiving full credit for their contributions to knowledge. Because of this, they fear the claiming of credit for their contributions by other researchers and groups. The result in many circles is a reluctance to speak freely about research plans and to circulate preliminary studies. For example, in one department I was told that most of the PhD students did not want to let outsiders read their theses until they had been granted their degree, for fear that their ideas would be used by others without acknowledgment. Such appropriation of credit for ideas may happen only infrequently, but often enough to make many students - who are at a very vulnerable stage in their careers - almost paranoid about the dangers. The same sort of closeness about research in progress is also found at higher levels on the academic ladder.

Secrecy also affects behaviour in the local hierarchy. Ideas for initiatives and plans for allocation of resources are often restricted to the 'in-crowd' in order to prevent widespread discussion and possible mobilisation of opposition. In political in-fighting, knowledge is an important resource. Ideas and plans may be limited in circulation until a decision is a fait accompli, or they may be publicised to set the agenda for a debate.

From the point of view of developing an intellectual culture in which ideas are freely exchanged and mutual intellectual stimulation causes the sparking of ideas and the creative consideration of decisions, secrecy resulting

from concern over priority and fear of stealing is a terrible blight on the system. But the blight is not just an unfortunate aberration. It springs from the hierarchical system itself.

Motivation. Many students and academics believe that they seek knowledge for the sake of knowledge itself or because of how the knowledge can be used to help people. This is very noble and true in some cases. But the academic hierarchy provides a rather different motivation for the *actions* of academics and students. Knowledge provides a way for them to get ahead in life. Doing research on the origins of cancer or war may be a convenient way of building a career, a way which is easy to justify in terms of the highest principles.

Students accept the syllabus and the methods of teaching and assessment because that is the way they pass courses and obtain degrees. Very few students are willing to jeopardise their degrees and career opportunities in order to pursue studies contrary to the syllabus.

Academics also accept the dominant knowledge frameworks and the standard methods of teaching and doing research. Very few are willing to jeopardise their promotion prospects - or their jobs - to pursue studies which are poorly rewarded. Complaints about their salaries, and comments about how much money they could be making in business or government, are frequent in academia. How many academics would keep doing their teaching and research on the same salary as the cleaner in their building? All indications suggest that the answer is very few.

Salary and formal career position and future job prospects are key motivating forces for students and academics. The academic hierarchy does not promote love of learning for its own sake or for service to people. Rather, it promotes these things only in as much as they can be tightly linked to the career interests of students and academics themselves.

Burnout. The academic hierarchy inevitably creates losers: those students and academics who are less than fully successful. For example, many academics may work hard in the early stages of their career only to find that they have no further promotion prospects because they are in the wrong field, because they have concentrated too much on teaching at the expense of research, or because they are outsiders in relation to the local hierarchy. The result, quite frequently, is demoralisation and burnout. Quite a few academics lack incentive to do anything more than just enough to get by.

The burnout syndrome is quite pervasive. In many cases whole departments or institutions may suffer. This is especially true when economic contraction reduces opportunities for movement or advancement. In these cases the local hierarchy gains power, and those not on the inside channels may give up in disgust.

Usually the blame for lackadaisical student or academic performance is put on the individual. But the problem is really one of the hierarchical power system. When the primary motivation for learning and research is individual advancement and the channels for advancement are clogged, the result is predictable.

in continuing through the system.

* Student-oriented learning. A common problem in the usual teacher-centred format is that the students defer to the teacher, and consciously or unconsciously avoid developing or voicing ideas which might be disagreeable to the teacher. Another common problem is that only certain students have sufficient confidence to speak in class, and they dominate any discussion that takes place, such as in tutorials.

One way to overcome these problems is through pair learning: each student listens to one other student describe their views on a particular issue. No interruptions are allowed. The talking and listening roles are then reversed. This allows students to describe their ideas without the teacher hearing them, and with no interruptions from dominant students.

Another possibility along these lines is for small groups of students to work together to study course material, discuss ideas, or prepare talks and essays. The teacher becomes an adviser. Provision can be made for students who prefer to work alone.

Methods in which students help each other to learn can be quite effective since there is a quick and ready response to individual difficulties, and because one effective way to learn something is to explain it to someone else. The main reason that student-oriented learning is more effective is that students are active participants rather than passive recipients.

Student-oriented learning does not remove all obstacles to learning. The biggest problems are assessment and credentials. For example, student groups may malfunction or collapse because of the individualistic orientations of students who are seeking high marks rather than maximum learning. Another problem is that the students are not really learning to be independent learners and thinkers because they still depend heavily on the teacher to provide the content, such as the material discussed in pairs.

* Student design of learning. This is the most radical alternative to conventional teaching. Students are expected to design their own plan of study, either as individuals or in groups. Staff - or other students, or member of the community - act as advisers.

Within a typical framework of courses, staff can still allow students to design individual courses. This is likely to work well only when students are taking the course mainly because they are interested in the subject, rather than to obtain specific credit points. In my own experience as an undergraduate, the course that left the most lasting impression on me was one in which the ten students collectively decided what topics would be dealt with and what the format of the course would be. The result was not all that unusual: a series of guest speakers, discussion of readings chosen by the students, and discussion of each student's essay. The important thing was not the novelty of the methods adopted, but that the students had chosen them. Even in this course, the usual problems remained: assessment by the course adviser, and the reluctance by shy students to speak out in the presence of other students and the staff adviser.

The subject of this course was "The meaning of death in Western cul-

sufficient strength to influence appointments and promotions, then control over course content will not be far away. It is for this reason that struggles within departments involving claims about the nature of the discipline are so important. In these struggles, those academics with ties to powerful outside groups have an advantage, but they are not guaranteed to win. When social movements are strong, it becomes possible to push for courses or new programmes in relevant areas. It is because of the resurgence of the peace movement in the 1980s - not because of advances in the scholarly study of peace issues - that there are so many more programmes in peace studies and peace research. Many of these programmes have been introduced over the screaming opposition of the discipline-based specialists.

The major limitation involved in changing the content of teaching is that the formal relations of power are left unchanged. The academics still determine the syllabus, establish the teaching methods and control assessment. Much 'critical' content is not very critical so far as students are concerned. To be assigned to read Karl Marx or Ivan Illich, to be expected to write suitably radical essays and shine in tutorials, and to perform well in examinations about these radical ideas, in many cases simply breeds cynicism. The divorce between radical theory and conventional teaching practice is particularly nasty. "Do as I say, not as I do" is no more effective at the tertiary level than at pre-school level.

Changing the form. In many ways a more fundamental challenge to the academic power structure than teaching radical content is introducing teaching methods which give the students more control over their learning. When students choose what and how they learn, they are more likely to develop critical perspectives - or so radical academics hope.

There are numerous initiatives which have been used in teaching.

- * Self-paced learning. The syllabus can be set up in modules which students study at their own pace. Assessment is carried out as they finish each module. The modules can be made up of written and taped material, and laboratory or field work along the way can be included. The teacher becomes a resource person. The Keller plan for example abolishes the fixed rate of progress of most classroom learning. The limitation is that the content of the course often is more tightly specified than ever.

- * Student choice of topics. Students, as individuals or in groups, are given the opportunity to choose topics for study or investigation, within the overall framework of the subject. This approach is used in quite a number of social science subjects. The teacher still maintains overall control through veto power over topics and through assessments.

- * Student participation in assessment. Various alternatives to assessment solely by the teacher have been tried, including peer assessment and self-assessment. One difficulty is that peer assessment may increase competitive pressures. A more general problem is that assessment is maintained. Another approach which is not uncommon is a pass-fail system in which all students who attend class or do a minimal amount of work are passed. This approach recognises that what counts is not so much what is learned as sheer persistence

Reinforcement of hierarchy

With all these unfortunate consequences, why does hierarchy persist? The obvious answer is that it benefits the people at the top. This is pretty accurate as far as it goes. But the process needs to be analysed somewhat further. The processes causing the persistence and reinforcement of academic hierarchy can be divided into those growing mainly out of internal dynamics and those growing mainly out of relations with external groups.

In terms of internal dynamics, the power of the academic elite is used regularly to suppress challenges to the hierarchy. The members of the elite may be divided along the lines of disciplines or political views, but there is a strong affinity on certain issues of 'principle', namely their own power. Proposals to broaden staff participation in fundamental decisions about curriculum, to flatten the salary structure or to put significant numbers of students on governing bodies are opposed by most of the academic elite. It does not matter greatly whether the challenge to the hierarchy is from below, such as from students, or from above, such as the impositions of government.

Members of the academic power elite exert power through their roles in deciding the budget, choosing staff, deciding on promotions, allocating courses and research moneys, and permitting publication in journals. Critics of the hierarchy - whether critics by word or deed - may be ignored in the hope that they will give up or go away. If they seem to be effective they may find difficulties in career advancement and in getting their message published. This has happened to untold numbers of academics over many decades.

Whatever the current distribution of power, the immediate stimulus to defend the interests of the academic hierarchy comes from threats to alter it. This is illustrated by the campaign by honours history students at the Australian National University to obtain information about their marks through the year. The students were given only a single assessment at the end of the year; what they wanted were their intermediate marks on different assignments, to give them better feedback about their performance. This seems like a small request, especially considering that many departments at ANU and other universities routinely give such information. But the history department staff refused to give in. The students were forced to make a request through the government's freedom of information legislation in order to obtain the information. (The students succeeded.)

Similar obstruction to change has been encountered when students request more representation (or representation in the first place) on university committees, or when students demand new courses, changed syllabuses or different assessment methods. This suggests that the academic hierarchy is much more threatened by the development of a process of change than by any single shift in power, once established.

It can hardly escape notice that challenges to the academic hierarchy are not very common. Those in higher positions do not often have to come out in the open and oppose student participation or campaigns for more equal salaries or for abolition of promotion ranks. The reason for this is that the academic

hierarchy mobilises widespread support for itself.

The hierarchy promises rewards of status and money for those who advance in it. For any individual, it is much easier to personally advance than to challenge the hierarchy itself. Combined with the pervasive individualism of intellectual life in undergraduate study and in staff research, the result is that most students and academics believe wholeheartedly in the necessity and virtue of a hierarchy of positions.

Naturally it is those who succeed in the hierarchy who come to subscribe to it most deeply and vehemently. Those who fall by the wayside in the struggle for advancement are more likely to become apathetic or bitter. The result is that loyalty to the system is greatest where it is most required, namely at the top. Among the unsuccessful students and academics there is little motivation to challenge the system individually or collectively.

In systems based on individualism, success and failure are claimed to be the responsibility of the individual. This causes a great deal of personal insecurity even in those who are successful for the time being. If the system were purely competitive, it would be incredibly threatening to individual egos. For insecure people, formal hierarchy is protective: it ratifies and affirms their roles, and reduces competition. This applies both to students who inch their way through the system of ranked courses and to academics who seek their maximum level of advancement and seek protection against upstarts.

Yet another way in which the hierarchy is reinforced is through the differences in knowledge and experience created by the hierarchy itself. There is no evidence to suggest that the average undergraduate - after some on-the-spot training and experience - could not perform as competently as the average head of department, dean or vice-chancellor. (A body transplant might be required for the student to appear sufficiently old - and male. Some building of confidence and arrogance would also be useful.) Elite positions in the academic hierarchy *seem* to require special talents, but the aura associated with these jobs results to a great degree from access to inside knowledge and from the prestige of the job itself. Deans, for example, obtain all sorts of confidential information about staff members. They sit on important committees, and have informal discussions with other members of the administration. The post may give the holder a great deal of power and responsibility, but that does not mean that it requires some special talent. The mystique of administrative elites is perpetuated by restricting open evaluation of their decisions. As in any bureaucracy, induction into the corridors of power and inside knowledge is restricted to those who have demonstrated their commitment to the system through long and loyal service.

In a number of ways, then, the psychology of students and academics is mobilised by the hierarchical structure of academia to suit the structure itself. As well as this, there are also external influences on academia which reinforce the internal hierarchy.

In relation to groups outside academia, the status of expert knowledge is linked to the position of the expert academic. A government which is establishing an expert panel on labour relations or on administrative reform is more

Quite frequently, they are concerned about social issues - such as housing for the poor, the arms race or racism - and realise that the usual courses short-change critical perspectives. In other cases academics simply become dissatisfied with the usual formulas and seek out new perspectives. Sometimes - though this is never admitted - the critical content is used by academics to stake out a domain of expertise and to increase individual status as a critical intellectual.

The most immediate constraint on individual initiatives comes from colleagues. If they agree with the approach taken, there is usually no problem as long as the course content is not so notorious as to arouse opposition from administrators or the general public. But if colleagues do not like the initiative, they have several potential excuses for opposing it. They can attack the course because (1) it diverges from the formal syllabus, (2) it is not sufficiently 'rigorous' or relevant to the discipline, (3) some students did not like it, or (4) there were some minor violations of formal procedures.

These justifications for attack are used selectively. For example, if a course is central to the discipline and taught by a powerful figure, then even major student criticism usually can be ignored. ("It's just sour grapes from a few misfits.") But even a few student complaints about an unconventional course can be used to help attack it. Student complaints are resources in the academic power struggle, resources which are mainly useable by academics or administrators - not the students.

For these reasons, individual initiatives in course content are most frequent when colleagues are tolerant or supportive. In many physical science courses, any political discussion is seen as foreign and may be attacked because it challenges the belief that science is value-free. In the social sciences, political issues are more prominent but they are also more highly charged, since they go to the core of the discipline's self-definition which is subject to dispute.

The greatest challenge in changing course content is to make the change permanent. It may be quick and easy to introduce different material into the course one is teaching, but as soon as someone else teaches the subject it may revert to the previous content.

Sometimes the interest of a particular academic, plus student demand, is sufficient to establish a critical subject as a regular option. Charles Schwartz, a physics professor at the University of California at Berkeley, introduced a physics course dealing with a series of issues from a radical science perspective. This course was not welcome to most other staff in the physics department, but it was tolerated as long as Schwartz was pushing it and students were around to take it and protest if it were abolished. But the course depended on Schwartz. Once he retired, there was unlikely to be anybody else to take it up. One of the most effective arguments against teaching a course is that "there is no one to teach it". (But it would be out of the question for another radical physicist to be *appointed* especially to carry on teaching the course).

To obtain a lasting change in course content requires more than individual initiatives. The key is personnel. If a faction in a department can gain

CRITICAL TEACHING AND RESEARCH

CHAPTER 13

Initiatives to change the content or form of teaching or research are very common in academia. The professional autonomy which is claimed by academics in some cases provides the opportunities for innovation by individuals and groups. Academics see themselves as teachers and researchers. Therefore the most obvious way for them to change what they are doing is to change their teaching and research.

Curricula and research programmes are the subject of continual power struggles precisely because they constitute the use of knowledge most directly of interest to academics. In this chapter I discuss the potential for critical teaching and research, and some of the limitations of the usual approaches to doing this. First I look at staff initiatives concerning teaching and research, and then at student initiatives.

Critical teaching

Teaching in academia is conditioned by several forces, notably control over entry into occupations by credentials, control over the content and process of teaching by teachers and administrators, and control over course content by members of the discipline. Yet these influences do not determine the details of curriculum and teaching method. There are opportunities to promote alternative content and methods because academic autonomy often gives individual teachers opportunities to do things differently in the privacy of their own classrooms.

The extent of these opportunities varies considerably from place to place. In centralised educational systems the curriculum is specified by state authorities, and innovation at the departmental level is difficult. In decentralised systems, some departments allow individual teachers to proceed pretty much as they like, while other departments keep a close check on content and method. Such factors greatly influence the prospects for critical teaching.

Changing the content. An individual teacher usually is supposed to teach 'the syllabus'. In some educational systems and departments, there is an enormous freedom within the general constraint of 'teaching the course'. The teacher can choose the material to be covered, the texts to be used, and the examination questions and essay topics. When this sort of freedom exists, considerable scope exists for changing the content. The course can focus on academic issues or on broad applications; it can sample a range of viewpoints or be very partisan.

Why do some academics introduce critical content into their courses?

likely to draw on top academics than on students - even if some students have more to contribute than the top academics. The academic hierarchy gains part of its power from connections with powerful outside groups, but this power depends on the maintenance of the academic hierarchy itself. Therefore the academic elite has an additional reason to maintain the hierarchy.

A position in the academic hierarchy as an administrator or researcher provides avenues for external influence because of the power exercised in relation to intellectual resources. Teaching on the other hand does not increase an academic's control over intellectual resources, unless the students form a cohesive community following the teacher's line. Hence teaching is seldom a path to external influence for an academic.

Maintenance of the hierarchy is also in the interests of the external powerful groups. In order to exert influence on the overall or specific directions of research and teaching, it is much easier to influence a relatively small academic power elite than to influence an entire academic community directly, since the academic power elite sets much of the agenda for the rest of the academic community.

In the public domain, the formal status of academic 'experts' often counts much more than what they have to say. For example, Bertell Ollman's court challenge to the blocking of his appointment at the University of Maryland - see chapter 9 - failed because the judge accepted the word of the university president over that of several other academics who testified. Essentially, academic status counted more than the quality or quantity of evidence.

Top academics who are willing to make public statements and talk to the press are avidly quoted and reported, even if what they say is banal or foolish (some would say especially when it is banal or foolish). Prestigious academics, with careers based on counting photons or rats, are treated as gurus on all sorts of topics, from education to poverty. Junior staff and undergraduates, not to mention nonacademics, who may have more well informed and insightful views, are seldom listened to with the same respect.

While it is true that academic elites are often beholden to outside interest groups, it is also true that a disproportionate number of prestigious academics are individualists or renegades: their commitment to the status quo is by no means guaranteed. This is another reason why joining public debates is frowned upon by the protectors of academic decorum.

Consider a law school. Normally the top law academics have personal and organisational connections with leaders of the local legal establishment. The law academics thereby are likely to be more or less in tune with the legal perspectives of dominant groups - the ones which provide the most high-paying jobs for lawyers. Now imagine a non hierarchical law school, in which courses were designed collectively by students and staff and in which the number of staff positions was much larger - with many part-time positions - and at a fairly low, flat salary. With such a system, outside powerful groups could still influence quite a number of the law school staff by offering lucrative work. But there would exist a much stronger base for at least some of the law school staff and students to align themselves with less powerful groups, for example by

setting up special units and running legal workshops and other services for women, the poor, minorities, etc. A non-hierarchical system thus would provide for an easier realignment of academic knowledge to less powerful groups.

In practice, the choice is seldom between a fully hierarchical and a fully non-hierarchical system. Current academic systems are not rigidly stratified, and already contain the possibilities for redirection of research and teaching. But the basic point remains: hierarchy provides greater opportunities for external powerful groups to influence the overall direction of higher education.

The basic reason for this is that hierarchies mesh more easily with each other than with egalitarian systems. As argued in chapter 8, control by the state over higher education contributes to the bureaucratisation of university structures. As argued in chapter 5, systems of male dominance and internal academic hierarchy serve to reinforce each other.

Since World War II, large amounts of research funding in the United States have been in the form of research grants to individual researchers and their research teams. This contrasts with the traditional provision of research funds through departmental and university channels. The largest grants have gone to research elites: academics in powerful and prestigious positions, often with many friends and contacts in high places.

Direct funding for research has contradictory implications for the academic hierarchy. On the one hand, many of those in the top positions gain even more power and in return become more oriented to the interests of the funding bodies. On the other hand, outside grants sometimes give academics resources that they can use to gain leverage against the local hierarchy. So while external funding often meshes with internal hierarchy, contrary interactions are also possible.

The Spautz-University of Newcastle case

Dr Michael Spautz joined the Department of Commerce at the University of Newcastle in 1973, as a senior lecturer. In 1980 he was dismissed from his tenured position. His case illustrates several features of the power hierarchy of academia.

In 1977 Alan Williams took up a post as the second professor in the Department of Commerce. In Australia, professors are very much the elite of the academic system.

In the latter half of 1978, Spautz began questioning aspects of Williams's PhD thesis. Williams's thesis argued that the failure of small businesses was in many cases a consequence of the psychological deficiencies of their owners and managers. Spautz suggested that this could confuse cause and effect: it could just as well be that failure in business led to psychological problems. Spautz also alleged that the thesis contained inappropriate use of statistical tests. Spautz's basic challenge to the academic hierarchy thus was to question the credentials of a senior academic.

Spautz first brought his allegations to the attention of Williams and then other university officials, as well as trying to publish scholarly replies to articles reporting Williams's work. But when these approaches led to no response,

demands and responses usually are adapted to adjustments in current arrangements, as in the case of promotion of women up the usual hierarchies.

All this is not an argument against pushing for policy changes. The problem is that a strategy for powerless groups based entirely on working through inside channels has limited prospects. As I argue in the following chapters, the existence of outside groups and movements opens up prospects for significant policy pushes that can challenge entrenched arrangements.

Reference

Joan Abramson, *Old boys new women: the politics of sex discrimination* (New York: Praeger, 1979). Case studies showing the failure of US antidiscrimination legislation to deal with male domination in government and academia.

To sum up, the ANU student occupation in 1974 provided some real advances for students, though these were far short of what was hoped for. The most obvious success was the establishment of the Women's Studies Program. Significantly, this was a clearly specified goal, in contrast for example with a hypothetical demand to "introduce feminist perspectives into traditional disciplines". The student demand in this case was successful partly because it was compatible with the division of knowledge and of academic power along disciplinary and departmental lines. The Women's Studies Program has remained vulnerable because it is small and is not a traditional discipline. This has necessitated continual student and staff support, which has been effective because it is a definite and 'defendable' entity, and because the feminist movement has not faded away.

The other advance brought about by student action was student representation on university committees. Once introduced, student representation has continued, showing the importance of changing formal structures. The power of student representatives is limited, and students have seldom had more than an advisory role in practice. On the positive side for the students, membership of committees allows student activists to find out how the system works and what issues are being dealt with, and this information is useful in student campaigns and also to outside groups which liaise with the students. Some policies which before could have been introduced entirely behind closed doors now must contend with the possibility of publicity and organised opposition.

On the other hand, student representation has not fundamentally changed the academic power system. It has only slightly altered the balance of power between staff and students, in a way which makes mass student action less likely in the future. From this viewpoint, student representation is an adaptation to student unrest which accommodates student grievances in a way that is relatively compatible with business as usual. Certainly there has been no substantial change in the way that curricula are developed.

Policies and structures

The approach to academic change by trying to alter policies either by gaining representation or by influencing elites is severely limited. If the process is kept within the institution, the impact of the change on the social structures of the state, capitalism, the professions and the credential system can be marginal at best. Policy struggles can have some impact on internal hierarchy, disciplinary power and male domination. Policy struggles go on all the time: some groups push against the interests of other, all of them moving within the current configuration of power. The usual form of these struggles is favourable to the most influential groups, notably the academic power elites, the disciplinary empires and men.

Sometimes less powerful groups can use the system to promote their interests. The difficulty is that in the absence of strong interest groups, logical argument won't get anyone very far toward changing policies; often this requires direct action, outside the 'formal channels'. Even in these cases, mass

Spautz slowly began making his allegations known more widely. In early 1979, Spautz introduced another charge about the thesis: that it contained plagiarised passages. Spautz thereby entered treacherous waters in dealing with the 'taboo' topic of plagiarism, which when publicised can be harmful to the image of academia as a whole. Spautz's challenge to the thesis was important scholastically, since Williams had only a very few publications.

The response of the University of Newcastle administration was to establish a committee to investigate the 'dispute'. The committee's focus was mostly on Spautz's behaviour, and the committee's report essentially told Spautz to stop his 'campaign' against Williams. Spautz's allegations about the thesis were not examined in any depth. Thus the response of the hierarchy was to attempt to suppress a challenge to one of its members rather than to deal with the charges of scholarly shortcomings.

Rather than halting his campaign, Spautz expanded it. He circulated numerous copies of memos to staff at the university, describing his allegations. This was a further challenge to the academic hierarchy: taking an issue to the wider academic community through channels outside the usual academic ones (which are normally controlled by members of the academic elite). The result was another inquiry into Spautz's behaviour. Without being given an opportunity to defend himself against formal charges of misbehaviour, Spautz was dismissed from the university by the Council (the governing body) in May 1980.

Spautz has repeated his allegations ever more widely in the years since his dismissal, and has mounted a series of court cases. The interesting point here is that Spautz's original allegations about Williams's thesis have never been investigated further by any official body. Essentially the university elite closed ranks on this issue. Opening an inquiry into the credentials of a professor could set a precedent very threatening to the hierarchy. Furthermore, if Williams's thesis were shown to be deficient, then this might raise questions about the competence of the academics who refereed the thesis and the academics who appointed Williams to a chair on such a limited output of publications.

Spautz has received little support even from junior staff in his campaigns. There are a number of reasons for this, including Spautz's deliberately provocative personal style. But there is another reason: many academics are simply afraid to speak out on the issue because this might hurt their own careers. This fear is realistic, in that in some other famous cases of staff-administration struggles, some of those who supported the critics were victimised themselves. The fear of most academics to speak out - even to demand an impartial scholarly inquiry into Spautz's original allegations - suggests an awareness of the power of the academic elite which belies the usual platitudes about academic freedom.

Age discrimination

In Britain in the 1980s, a large number of new tenurable university posts were created especially for young people: the so-called 'new blood' lectureships. This was a response to the funding squeeze on higher education and the

lack of opportunity for aspiring scholars to obtain permanent posts. The question is, why did the response to the squeeze take the form of posts especially for the young? The answer in part reflects the interests of the academic hierarchy. But before dealing with the explanation, it is worth outlining the arguments against age discrimination.

- Chronological age itself has no relevance to a person's ability to perform a job and to contribute enthusiasm and new ideas. Age discrimination is contrary to academic merit, just like discrimination on the basis of sex, ethnic origin or political affiliation.

- Outstanding older applicants are ruled out of contention.

- Resentment and disillusionment are likely among those who have been working for many years in untenured posts and who now are too old for the new posts.

- Age discrimination is de facto discrimination against women. Women are more likely to have interrupted careers due to child-bearing and rearing, due to social expectations, and due to previous discrimination.

- Academics who are appointed young are more likely to become stale. Appointing older applicants - especially those with significant experience outside academia - is a much better way to overcome staleness and inflexibility of staffing than to appoint young people. 'New blood' does not have to be 'young blood'.

In spite of all these disadvantages, 'new blood' appointments have not been opposed by more than a handful of elite academics. The reason is that age discrimination helps to reinforce the academic power hierarchy.

First, the fact that age discrimination is in practice a form of sex discrimination is no problem for academic elites who have never been enthusiastic about equal opportunity. Women are not a significant part of the academic power elite, and so are not in a position to promote appointment policies which would selectively help women.

Second, academic elites are mainly men who obtained posts earlier in their careers as they proceeded single-mindedly through specialist research without interruptions for outside employment, extended travel or child rearing. The 'new blood' posts allow the appointment of young men who appear to replicate the paths of their superiors. It is a great opportunity to sponsor 'golden-haired boys', namely the young proteges of elite academics.

Third, young appointees are more malleable. Because of their lack of experience, they are more likely to adapt to the power system as it exists. Older appointees might well be more qualified and experienced than existing staff in higher positions. How embarrassing to have an obviously superior and more experienced performer in a junior position! Older appointees are also more likely to have strong and well-thought-out opinions, and be less given to bootlicking. To appoint an older, experienced scholar to a junior position can only upset the academic pecking order. Age discrimination on the other hand serves to perpetuate it.

In short, the academic hierarchy is reproduced by appointing people who

Rather than altering academic power arrangements in any fundamental way, the changes introduced in response to student unrest have tended to formalise and bureaucratised the decision-making process. Students have more formal power on committees and governing bodies, but this is via representatives who remain very much in a minority. At the same time, the decision-making process has become more formal, and this means that bureaucrats have more power. Far from opening up higher education to be more participatory, mass student protest has had closer to the opposite effect.

The strategy of many leading student radicals in the late 1960s and early 1970s was to organise mass pressure and action to confront hidebound administrations and force them into making concessions. The strategy often worked. But the concessions did not work out as planned. Rather than providing the basis for further student mobilisation, the concessions provided an outlet for immediate student grievances. Within a few years, student protest ebbed.

The potential and limitations of pushing for policy changes is illustrated by events at the Australian National University (ANU) in 1974. Student activists had been campaigning for some time to improve conditions for students and to increase student participation in decision-making. Academic elites at ANU had resolutely refused to make any serious concessions to the student demands when voiced through the usual channels. The resulting deadlock was broken after about 400 students occupied the main administration building. The principal decision-making body of the academic staff accepted the major student demands as desirable objectives. The sudden acquiescence of the staff shows the power of mass action. But what about the student demands? Did they have any major impact on political arrangements at ANU? Consider four of the student demands.

1. Students and staff should participate equally in the determination of course content. This sounds nice, but has not happened. Students are now represented on most ANU committees, but are very much in a minority or without real power. Staff maintain power to determine course content. This is illustrated by the refusal of the Economics Faculty to offer courses in political economy in spite of continual student requests.

2. There should be a wider choice of course content. This is not a fundamental challenge to the power of staff, although to some degree it allows students, as consumers, to shop around somewhat more.

3. Overcrowding in classes should be reduced by repetition of lecturers and tutorials. Once again, there is no real challenge to staff power here. Indeed, it is in the interests of all staff to increase the allocation of educational resources to reduce crowding.

4. A women's studies course should be established. This was done. The course has been very important in awakening many students to the conditions of women in society. The Women's Studies Program has been a precarious affair, with very few staff and with periodic threats to its survival. Organised student and staff action, including rallies, have been instrumental to the maintenance of the program.

academia. There are some standard ways of doing this.

The least conspicuous and most effective way of influencing elites is through inside connections: personal contacts, informal lobbying, building alliances and making tradeoffs. Inside operations of this sort are routine for individuals and groups in positions of moderate or great power. Powerless groups such as students seldom have much opportunity to use inside connections, nor have they many resources to bargain with at this level.

Formal lobbying is more open and usually much less effective. When student delegations visit the head of department to make requests, their arguments are likely to make little difference. Successful lobbying depends on being able to muster a reward or a threat. Students are not able to offer large amounts of money, job, or status to academics.

The major power which students can bring to bear is organised action. Meetings, petitions and rallies in which sizable numbers of students participate are likely to be treated seriously, especially if there is a potential for escalation of action. If student grievances are not satisfied, the result may even be student strikes and occupations.

Student protest threatens to bring outside groups into the struggle. Governments may encourage or help academic administrations to smash the student protest, especially if the protest is focused against government policies. On the other hand, the students may build alliances with some staff and also with outside groups such as workers. In these cases student protest becomes part of a wider power struggle. Administrations are likely to find their autonomy reduced, since governments and other groups will demand more accountability.

What does all this have to do with formal channels? Quite a lot actually. Formal channels allow grievances to be handled without the mobilisation of opposition.

Student activists for many decades have pushed for reforms of various types, such as more student input into course content. Formal channels are seen as the legitimate way to proceed - even if they are fundamentally biased against students. To mount a challenge to current policies, students require the mobilisation of large numbers of people, usually the students themselves. This sometimes happens when clear grievances exist - such as the absence of black studies or women's studies - and when formal channels are clearly inadequate.

From the point of view of academic power elites, formal channels also are seen as the legitimate way to proceed. If student protest is sufficiently strong and threatening, one typical response is to open up the formal channels a bit, for example by allowing student representatives on official committees. This is a compromise solution. Letting students have any role at all is opposed by many academics who wish to restrict decision-making to themselves. But opening up the formal channels limits the challenge of mass student action. Furthermore, those students who are more active are likely to become representatives, and many of them then adapt to the power game.

This is precisely what happened in the late 1960s and early 1970s in a number of countries around the world in the wake of mass student protest.

will follow the same careers as their elders. There are some alternatives to age discrimination, but they are less compatible with the academic hierarchy.

- More fractional appointments, with benefits and security comparable to full-time appointments, would open up more posts and also allow those with other commitments - such as people rearing children - to gradually enter the system. But this would undercut the mobilisation of loyalty to the academic hierarchy which comes from full-time work.

- More appointments could be made at lower ranks and fewer at higher ranks, thereby expanding the number of posts. This of course would reduce promotion prospects and hence reduce the rewards for academic competition and loyalty.

- More total appointments could be achieved by reducing or flattening academic salaries. Needless to say, this would never be supported by academic elites.

- The tenure system could be changed so that security is greatest for those in the lowest positions rather than those in the highest positions. This would overcome the problem of stale and unproductive staff sitting in perpetuity in high-level tenured positions, but clearly it also would undercut the hierarchy.

The lack of opposition to age discrimination illustrates how the priorities of the academic hierarchy shape the political assessment of policy options. Academic principles become a rhetorical device when they are convenient, such as defending against the impositions of outside controls. They can be quietly ignored when they conflict with the reproduction of the hierarchy itself. Academic administrations are quite ready to sacrifice academic principles if that is what is required to maintain their power.

Challenges

Thus far I have mainly emphasised the ways in which academic hierarchy is reinforced internally and externally. But there are quite a number of forces opposing hierarchy, and also some severe internal contradictions in the system.

Intellectual equality. One of the prime difficulties with the formal academic hierarchy is that it does not reflect the distribution of academic ability in the conventional sense. In spite of the advantages held by academic elites - high prestige, access to inside knowledge, work done by subordinate staff - many of them do not shine very brightly in the scholarly firmament. Many junior staff, advanced degree students, or even undergraduates can hardly avoid realising that the mouthings of many eminent scholars are platitudes or worse, and that their own ideas and contributions are at least as worthy. A small number of the junior scholars make attempts to prick the scholarly balloons of elite staff, for example by asking embarrassing questions at seminars or by writing critical articles. Such attacks cannot but undermine the status of elite positions.

The most effective way to head off such attacks is to specialise and to become *the* expert in a narrow area, as the next chapter will show. But if aca-

democratic elites are to expand their empires or to make their knowledge available to outside groups, they cannot easily remain in narrow research boxes. When they come out, they are vulnerable to attacks on intellectual grounds. Another way to reduce attacks is to rapidly promote the attackers. But the inflexibility of the hierarchy may not always allow this, not to mention personal animosities which may outweigh political shrewdness.

Competition in the research system. Advancement through the research system itself is often a challenge to the local hierarchy, as described before. One special case is worth noting: the blockage of advancement of new academics. This can happen when the system is contracting, for example, and few positions are opening up. When this happens, the divergence between position and performance can become especially blatant, and this can lead to resentment and sometimes radicalism by those whose careers are blocked.

Lack of flexibility. Many different groups have an interest in what teaching and research goes on in academia, ranging from corporations to social movements. If the hierarchy stultifies all initiative, academics will not be able to respond to new pressures, and this may lead to outside intervention. For example, if training of students is too academic and not sufficiently oriented to the labour market (that is, corporate and government requirements), the state may apply pressure for more vocational training by threatening to divert funds to vocational institutions. The women's movement has led to expectations for equal employment opportunity, and if academic hierarchies cannot accommodate this quickly enough, government intervention is again possible.

Negative consequences. The consequences of hierarchy and competition - such as cheating and burnout - sometimes lead to critical attention to academia, but not all that often. Usually the focus is on symptoms rather than underlying causes.

One student I know, inspired by the title of Hunter S. Thompson's novel, planned a research project on 'fear and loathing in the university'. It would have been a superb exposé. But she dropped it on the advice of her supervisor. He said there was too much material to cover even for a PhD, much less an undergraduate honours thesis.

Ideals. Many students and quite a few staff believe in and act according to the ideals of higher education: a concern for learning, service to the community, sharing of knowledge, and a commitment to truth irrespective of whom it serves. These ideals are of course the official rhetoric of academia, but they do not mesh well with the existence of a hierarchical power system. If the goal is learning, then why should students be given so little voice in designing their courses? If the goal is advancement of knowledge, then why are resources allocated to powerful departments rather than to the ones doing the most innovative work? If academia is a community of scholars, then why is criticism of the competence of students so readily accepted while criticism of the competence of administrators is taboo? Why are suggestions for change assessed according to who makes them rather than the quality of the suggestions? These and many other contradictions between the ideals and reality of academia provide a continuing source of challenges to the academic hierarchy.

exist or can be overcome.

- The built-in obstacles persist, such as narrow-track careers, gender-based careers and lack of child care.
- Individual academic women have seldom been able to introduce a feminist orientation into the mainstream disciplines, but have had to adapt to orthodox frameworks or enter teaching and research areas which are treated as marginal.
- Very few women who are seen as radical in any way are allowed by male academic elites to enter the top decision-making ranks.
- Just as women are pushing for assessment of their performance on the supposedly impartial criterion of merit, in some places there is a new 'appreciation' of non-academic performance: entrepreneurial *men* with industrial, government or media experience are being appointed and promoted, skipping the formal academic channels, ahead of women who had trusted in the rhetoric of 'working through the system'.

Overall, working through the system means playing the game by male rules. The major gains that can be made are in areas where anti-female bias clearly contravenes liberal academic principles, such as blatant discrimination in appointments or promotions, which also threatens men who perform well by the system's specifications. Bringing about other changes, such as challenging the dominance of the narrow-track career, is much more difficult to achieve through formal channels. To a great extent, the formal channels are constructed on the very power arrangements which perpetuate male dominance: full-time professional narrow-track careers, gender-based occupations and male-oriented disciplines. The men - and some women too - who thrive within these power arrangements have extensive resources to maintain the basic structures.

In one academic battle I was told about, some members of a political science department pushed to fill a post with someone who could teach and do research in the area of women and politics. The conservatives in the department fought against this, but lost. But the conservatives in their defeat were able to influence precisely *who* was appointed. They preferred a woman applicant who had done work on women and voting on a fairly technical level. Those applicants who had very impressive records but who had dealt more centrally with the political aspects of male power lost out.

In the face of a powerful feminist movement, the formal channels give male academics the best opportunity for diverting the challenge into 'safe' forms. A few women - mostly the more orthodox ones - are invited into the corridors of academic power (or at least into academic corridors). More far-reaching feminist goals are left off the agenda.

Pressuring elites

When working to change policies, gaining positions of formal power is one way to proceed. Another is to pressure elites. The difference is simply that instead of becoming elites, the strategy is to influence the existing body of elites. This is perhaps the most common way used to achieve change inside

to obtain representation on decision-making bodies. An example is the permitted membership on governing bodies of a small number of undergraduate students, postgraduate students and non-academic staff. Similar representation can be sought and sometimes obtained in other parts of the policy-making apparatus.

If such representation has become established, then those in the positions can attempt to push for policy changes. The difficulties are great. Usually the subordinate groups have only token representation. The representatives are politely listened to, but are unable to initiate significant change. One person I talked to had examined the role of students on a university governing body and found that on not a single important issue had the student representatives been able to have an impact on the decision made.

The reasons for this are largely the same as why individual radicals who climb up in the system have such limited power. The representatives of powerless groups are conspicuous and are not treated seriously. Many of the representatives submerge or water down any radical notions they might entertain in order to gain credibility and to play typical power group politics. In any case, the committees they sit on have limited scope to initiate significant change within the wider configuration of power.

Many liberal-minded administrators realise that representation of students and non academic staff on official committees provides only a limited challenge to business as usual. It is for this reason that representation sometimes is offered to students, especially when more radical demands are being made.

Equal employment

One of the most significant challenges to academic power structures in recent years has been by women who are demanding equal employment opportunity, nonsexist subject matter and changes in career structures to offset the disadvantages faced by women. Here I look at this challenge from the point of view of feminists working to promote the interests of women and to introduce principles of feminism into academia. How effective have approaches based on formal channels been?

One approach has been for feminists to pursue personal advancement through degrees, appointments and promotions, and to use formal positions to promote the feminist cause. This path has been fraught with difficulties. There have been some successes but many disappointments. On the positive side, from the feminist point of view, some women have had successful academic careers and remained committed to feminist causes. They are towers of strength inside the system and provide valuable role models. To weigh against the successes are numerous problems.

- Many women who are promoted up the system submerge their feminism in the process, adapting to peer pressures and to bureaucratic exigencies.
- Overt and covert discrimination continues as a major obstacle. The individually successful women are used to argue that this discrimination does not

In spite of all these sources of challenge, academic hierarchy is alive and well. Most of the challenges, if they have any effect at all, result in replacement of elites, not a change in the elite *system*.

References

- Anthony Arblaster, *Academic freedom* (Harmondsworth: Penguin, 1974). An analysis and documentation of the exercise of power by academic administrators to suppress critics.
- J. Victor Baldridge, *Power and conflict in the university: research in the sociology of complex organisations* (New York: Wiley, 1971). An insightful treatment of academia as a political system.
- Bob Bessant, 'Corporate management and its penetration of university administration and government', *Australian Universities' Review*, vol. 38, no. 1, 1995, pp. 59-62.
- Theodore Caplow and Reece J. McGee, *The academic marketplace* (New York: Basic Books, 1958). A sociological study of academic institutions, with many insights into the exercise of power.
- Alvin W. Gouldner, 'Cosmopolitan's and locals: toward an analysis of latent social roles', *Administrative Science Quarterly*, vol. 2, 1958, pp. 281-306, 444-480. A classic analysis of types of personal identities in academic organisations.
- Jan-Erik Lane, 'Power in the university', *European journal of education*, vol. 14, no. 4, 1979, pp. 389-402. An argument that the department is the key to internal academic decision-making.
- Lionel S. Lewis, *Scaling the ivory tower: merit and its limits in academic careers* (Baltimore: Johns Hopkins University Press, 1975). A penetrating examination of evaluation of performance in academia and how it reflects the power structure.
- Brian Martin, C. M. Ann Baker, Clyde Manwell and Cedric Pugh (eds), *Intellectual suppression: Australian case histories, analysis and responses* (Sydney: Angus and Robertson, 1986). Case studies and analysis of the suppression of intellectual dissent in academia.
- Monte Piliawsky, *Exit 13: oppression and racism in academia* (Boston: South End Press, 1982). A potent critique of racism in US academia.
- Logan Wilson, *The academic man: a study in the sociology of a profession* (New York: Oxford University Press, 1942). Things have not changed much since this study dealing with academic hierarchy, status and processes.
- There are many exposés of problems in academia. Though these usually lack any structural analysis of the source Or the problems, they are very revealing and thought-provoking, and hence much more useful than most academic treatments.
- Bernie Fels, 'The academy and its discontents', *Telos*, no. 40, summer 1979, pp. 173-176. A bitter attack on power-mongering in the university and especially the complicity of leftists in it.
- Morris Kline, *Why the Professor can't teach: mathematics and the dilemma of*

- university education (New York: St. Martin's Press, 1977). A delightfully readable and myth-shattering attack on academia.
- Richard D. Mandell, *The Professor game* (Garden City, NY: Doubleday, 1977). An incisive, witty, sarcastic and cynical view of United States university professors.
- A. P. Rowe, *If the gown fits* (Parkville: Melbourne University Press, 1960). Trenchant observations about the Australian academic scene in the 1950s, from an elitist viewpoint.
- Richard K. Scher, 'Academic macho', *Educational horizons*, vol. 61, no. 2, Winter 1983, pp. 83-87. A concise survey of pathologies of academic interpersonal relations.
- Charles J. Sykes, *Prof scam: professors and the demise of higher education* (Washington, DC: Regnery Gateway, 1988). A no-holds barred attack on the US professor's teaching, research and culture.
- Jack Trumbour (ed.), *How Harvard rules: reason in the service of empire* (Boston: South End Press, 1989). An excellent critique, covering governance, links with US government and corporations, ideology, social control and strategies for change.
- Pierre van den Berghe, *Academic gamesmanship: how to make a Ph.D. pay* (London: Abelard-Schuman, 1970). A humorous and extremely biting satire of the myths and realities of academic life.
- Arthur S. Wilke (ed.), *The hidden professoriate: credentialism, professionalism, and the tenure crisis* (Westport, CT: Greenwood, 1979). A collection of case histories of internecine battles, exploitation, abuse and general nastiness of academia, showing especially the vulnerability of students, women and junior staff.
- George Williams, *Some of my best friends are professors: a critical commentary on higher education* (New York: Abelard-Schuman, 1958). Indeed, "a critical commentary."
- Professor X, *This beats working for a living: the dark secrets of a college professor* (New Rochelle, NY: Arlington House, 1973). An amusing exposé of university life from a relatively conservative viewpoint.
- On the Alsabti case, see William Broad and Nicholas Wade, *Betrayers of the truth* (New York: Simon and Schuster, 1982). On cheating see also Clyde Manwell and C. M. Ann Baker, 'Honesty in science', *Search*, vol. 12, no. 6, June 1981, pp. 151-160.
- On the Spautz-University of Newcastle case see: Brian Martin, '[Disruption and due process: the dismissal of Dr Spautz from the University of Newcastle](#)', *Vestes*, vol. 26, no. 1, 1983, pp. 3-9; Brian Martin, '[Plagiarism and responsibility](#)', *Journal of tertiary educational administration*, vol. 6, no. 2, October 1984, pp. 183-190.

no radical ideas.

A second difficulty is that academic performance in some abstract sense is not sufficient for advancement. The local hierarchies and disciplinary cliques may exclude top performers. Therefore the easiest way to climb the ladder is often by being an acceptable personality, building alliances and trading favours. In all of this, being 'radical' in any fundamental way is a definite disadvantage. Those who criticise academic elites openly or question the system of credentials are much less likely to be promoted to positions of influence.

Those who play the game in order to get ahead often submerge their radicalism as a tactical measure. They realise that anyone who speaks out frequently with nonstandard views is likely to be labeled a critic and ignored on all later issues. To protect their reputations as 'sensible' and 'responsible' scholars, many academics keep a low profile. The result is adaptation to the system and failure to take any critical action. In the long march through institutions, most of the radicals become institutionalised far sooner than the institutions become radicalised.

In spite of the obstacles, some radicals do rise to high positions. But then what? The possibilities for initiating significant change from formal positions of power are overrated. Even heads of universities and ministers of education have on occasion voiced feelings of powerlessness. Few academic systems behave like ideal bureaucracies, responsive to the articulation of altered policies at the top.

Another difficulty is that the formal positions of power can be used effectively only by certain types of people and for certain sorts of changes. A president of a university typically performs a difficult balancing act between pressures from former graduates, influential community groups, the governing body, the university administrative elite and the academic staff. Even making minor manoeuvres within this configuration of power may be difficult. To propose major changes in direction almost certainly will stimulate massive opposition and weaken the prospects for small-scale changes. *Who* gets into particular positions makes a big difference. Radicals, especially conspicuous ones, are often isolated and circumvented and generally prevented from exercising the influence that a more orthodox person might wield.

Even more importantly, formal positions are not very effective bases for implementing radical policies. Gaining hierarchical power to undermine the hierarchy, or becoming a successful specialist researcher in order to criticise the use of specialist expertise, contains contradictory elements. This is not to mention the contradiction of a male academic rising up the hierarchy in order to promote equal opportunity for women, or a student aiming to become a doctor in order to challenge the medical monopoly on health services.

The contradictions arise from the restriction of initiative to formal channels. To challenge educational policies effectively from within usually requires some connection with outside forces, such as the student movement or the feminist movement.

A second way to gain formal positions of power is for interest groups

POLICY CHANGES

CHAPTER 12

One way to make changes in the academic system is by changing policies. This includes policies on curriculum, on student entry, on staff appointments, on methods of funding and on credentials. The basic approach here is to work through formal channels, such as academic committees, governing bodies or state educational authorities.

Those individuals and groups in the most powerful positions - from deans to vice-chancellors to heads of state education departments, and their associated retinue - have the greatest possibilities to promote policy changes. My main focus though is on less powerful groups, such as students, junior academics, non-academic staff and groups outside academia entirely. How can they use formal channels? What are the likely strengths and limitations of this method?

The formal channels approach can be divided into two parts: gaining representation on policy-making bodies, and applying pressure to elite policy-makers. After outlining these two methods, I comment on the relation of the formal channels approach to the structures of power that shape the academic system.

Gaining positions of formal power

Inside academia there are many formal bodies which make decisions, from departmental committees to the university governing bodies. Looking at this formal decision-making apparatus, it might seem that the most obvious way to have an impact on decisions would be to gain membership on the various bodies. I say that it might *seem* the most obvious way because, although there are reasonable prospects for gaining such membership, there also are severe limitations to this approach.

One proposed avenue for change is for radicals to gain promotions up the career ladder in academia. When they rise to some suitable position, they are then able to influence decisions through membership of various committees, or by lobbying in relation to particular initiatives. This avenue has been called 'the long march through institutions'. It is based on the assumption that power is exercised through bureaucratic channels, and that holding formal elite positions is central to implementing favoured policies.

This strategy is flawed on several counts. A major difficulty is that the process of gaining promotion is in many cases deradicalising. To get ahead by the orthodox criteria requires of most people great dedication to work, in order to have research published in prestigious journals and do a share of routine academic administration. For students who plan to proceed on this path, efforts to obtain good grades and favourable recommendations are important. The path is a very long one, and not everyone can succeed - even those who have

DISCIPLINES

CHAPTER 4

Philosophy, physics, psychology. To academics, the disciplines seem a self-evident way of dividing and organising knowledge. Certainly, disciplinary divisions are more entrenched in academia than about anywhere else. One of the reasons for this is that the disciplines are tied up with the academic power system.

The sociology of knowledge is the study of the social influences on the creation and nature of knowledge. One of the key insights underlying the sociology of knowledge is that knowledge is socially constructed rather than being built into 'the way things are.' Theories, evidence, even 'facts' are all influenced by the social, political and economic context in which they are developed and used.

For example, the theory of evolution was originally built around the idea of competition, a 'struggle for survival.' In the prevailing intellectual climate in Europe in the 1800s, ideas of social competition were used to justify inequality. Darwin for his biology drew upon the social theories of Thomas Malthus. The 'facts' about nature were interpreted from this framework, and what didn't fit was ignored or explained away. This is the standard procedure when proceeding on the basis of a paradigm - a framework for understanding and investigating the world.

The idea of the social construction of knowledge is vital in understanding the dynamics of disciplines. The disciplines are not based on inherent characteristics of knowledge or reality. Rather, the disciplines can best be understood as resulting from divisions of knowledge which are useful for the purposes of groups of people: academics, professions, capitalists, state bureaucrats. The development and maintenance of a body of knowledge as a discipline involves a continual power struggle.

How does this power struggle proceed? Basically, groups grasp onto disciplines, attempt to take them over, or try to create new ones, to serve their own interests. The chemical industry tries to orient the discipline of chemistry to its interests. Physicists entering the field of molecular biology in the 1940s and 1950s tried to transform biology into a physics-like subject; sociobiologists seek to 'biologise' the social sciences. New disciplines such as biochemistry are staked out by practitioners who want to control the content of their teaching and research.

In all these instances, the way knowledge is organised and divided is the subject of the struggle. At the same time, knowledge is a tool in the struggle. Those who control teaching and research in a discipline use that control to expand their own empires or to ward off threats. The existing organisation of knowledge is hard to change. People's careers are built on it, and their perceptions grow out of it. So the past history of disciplines is one of the key factors

in their continuing development.

Do disciplines have any inherent logic? It might be argued that there are some useful divisions of subject matter, even if struggles do go on over the divisions and content. But the question then becomes, to whom are the divisions useful and for what purpose? My answer in general would be that some knowledge divisions are probably convenient for most people studying an area, but that these convenient divisions cannot be separated from divisions that are useful for other purposes. For example, for certain purposes it can be useful to distinguish between geology and geography; these few purposes are seized upon and solidified into semipermanent boundaries between departments, styles of thought, journals, theories and all the rest. The result is that it is impossible to separate out what is a useful knowledge distinction from the wider configuration of power in which that knowledge is developed and used.

In the following, I first look at three aspects of disciplines in connection with power systems: direct links with interest groups, specialisation, and academic power struggles, and then examine interdisciplinary studies and Marxism.

Links with interest groups

Many of the knowledge frameworks in academia are overtly tied to interest groups on the inside or outside. Most obvious are the knowledge frameworks of professions such as law, medicine and engineering. Precisely because these areas of knowledge are so oriented to particular functions in society, such as the legal system, they are often not considered proper academic disciplines. Medicine, for example, is seen as drawing on a range of disciplines, for instance heavily on anatomy and physiology and peripherally on chemistry and psychology.

The core disciplines are defined mainly in ways which maximise control by the academics themselves. The theoretical core of the discipline is what gives the academics greatest control. Academic chemical engineers are likely to have continual interactions with industry, experimental chemists to have not so many and theoretical chemists to mainly interact with each other. Although applications make the discipline useful to other groups, seldom is there a neat correspondence between the organisation of the discipline and the applications.

Nuclear physics illustrates the complexities of linkages between interest groups and disciplines. Nuclear physics can be considered to be a branch of physics or as a discipline in its own right. It deals with the dynamics of particles and forces at the level of the nucleus of the atom. It is bounded on one side by atomic physics which deals with problems at the larger scale of atoms, and on the other side by particle physics which deals with particles smaller than the nucleus.

Prior to World War Two, the study of nuclear dynamics was a small but expanding academic topic. The programmes to build nuclear weapons during and after the war led to an enormous input of money and resources into the field. Beginning in the 1950s, the development of nuclear power gave further impetus to nuclear research. With the injection of large amounts of money,

acquiesce in being treated as children.

Finally, there are quite a few non-academics - such as trade unionists, feminists and minority rights campaigners - who are unhappy about the present uses of higher education. They have little to lose by trying to change such an entrenched system. Nevertheless, their actions on the outside, which apparently have little to do with higher education, may have the greatest impact of all. For example, the alternative health movement poses an ongoing threat to the legitimisation of medical professionals through credentials.

Higher education is a useful place to promote self-management because of the increasingly important role knowledge plays in society. People connected with higher education are in a good position to help retie knowledge and to support struggles against monopolisers of knowledge. But, on the other hand, higher education is not a uniquely important place for this struggle. It is simply one place out of many to challenge the local patterns of patriarchy and hierarchy. Similarly, it is simply one place out of many to help build alternatives to state power, capitalist power and professional power. It is not even an especially effective place to seek to overcome class inequality, since the educational system only shuffles people into different slots in the wider system of inequality. But although social revolution is very unlikely to be brewed in the academic cauldron - cups of tea are much more likely - academia is *one* place to work towards democracy.

References

- On the indictment of academia and its links to other power systems - a topic on which much was written during the peak years of the student movement in the late 1960s and early 1970 - see for example Theodore Roszak (ed.), *The dissenting academy* (New York: Random House, 1967) and Immanuel Wallerstein and Paul Starr (eds.), *The university crisis reader* (New York: Random House, 1971).
- The following treat aspects of self-management.
- Daniel Guerin, *Anarchism: from theory to practice* (New York: Monthly Review Press, 1970). Historical examples and arguments for anarchism.
- A. H. Halsey, 'Schools for democracy?', in: John Ahier and Michael Flude (eds.), *Contemporary education policy* (London: Croom Helm, 1983), pp. 191-210. Yugoslav self-management in industry and in schooling.
- David Morris and Karl Hess, *Neighborhood power: the new localism* (Boston: Beacon, 1975). On neighbourhood self-management.
- Colin Ward, *Anarchy in action* (London: Allen and Unwin, 1973; Freedom Press, 1982). The case for self-management.
- Trevor A. Williams, *Learning to manage our futures: the participative redesign of societies in turbulent transition* (New York: Wiley, 1982). A report and analysis of academic work to promote self-management in industry and in education.

battles between elite groups over funding, admissions and institutional autonomy, battles which are really about the control exercised by different elite groups.) Even so, there are a few people inside dominant social structures, such as state bureaucrats and educational administrators, who do what they can to promote self-management. Those in these 'insider' positions, even though they face difficult constraints and awkward compromises, often can do quite a lot, especially in providing support for activists on the 'outside'.

Among academics, only a few tenured staff are interested in any social action which breaks with the normal patterns. Those who are willing to act are in a powerful position: they can use their academic status to undermine the power systems which link academia to other elite groups. Nontenured staff - which include a high percentage of women and minorities - are much more likely to become radicalised due to their precarious positions and experience of discrimination. They are also vulnerable to the lure of an academic career on the one hand and the demoralisation of falling by the wayside on the other.

While many academics have progressive views on a range of social issues, only a tiny fraction actually become involved in social action at a grassroots level. If they do become involved in social action, it is much more likely to be in professional or bureaucratically organised groups, such as professional lobbies or social democratic political parties, which allow them to use their special skills.

Quite a few academic intellectuals with radical ideas are notorious for their allergy to personal political *action*: "before acting, it is necessary to study and understand better the objective political and economic conditions". This is a familiar problem for intellectuals: the paralysis of analysis. As Saul Alinsky once wrote, they discuss and discuss and end in disgust.

Students provide more hope. Because they are not so tied to careers and because many of them have high ideals for intellectual matters, students have been in the forefront of many struggles for justice and equality. Even so, it is usually only a small minority of students who are politically active, as indeed was the case even during the height of student activism in the late 1960s and early 1970s.

The conditions of students' lives are favourable for social action. They have free time, contact with new ideas and like-minded people, and places and causes for becoming involved in political activity. On the debit side are continual pressures for study and assessment, the competition for credentials, and insecurity about future careers.

Two groups among students may provide a special stimulus for change. One is women. They encounter and experience the system of male domination in academia which is contradicted by beliefs about merit and opportunity. Some of them act to oppose their subordination, using support from the feminist movement, including academic women's studies programmes. The feminist challenge to academic patriarchy occasionally becomes a wider challenge to academia itself.

The other group is so-called mature-age students. Many of them enter higher education to learn, not just to obtain credentials. They are less likely to

with many lucrative jobs and research contracts, nuclear physics became one of the most prestigious of subjects and attracted many of the top students in the 1960s.

The designing and building of nuclear weapons and nuclear power facilities depends on a certain level of understanding of the underlying processes, in other words of nuclear physics. But rather than concentrate on the applications - many of which can be classified as nuclear engineering - most universities emphasised theory and experiment in nuclear physics for the ostensible purpose of pure understanding. While most nuclear scientists support nuclear power, most of them conceive of themselves as scientists: as nuclear *physicists*, not as lackeys of the nuclear industry. They justify expenditure and training in their area by reference to the important understandings about nature which result. The question is, why does the academic discipline of nuclear physics, which owes so much to state investment in nuclear weapons and nuclear power, define itself primarily in terms of a body of knowledge rather than as a potential set of applications?

The answer lies in the structuring of the academic community around bodies of knowledge which are exclusively controlled by groups of teachers and researchers. In order to justify claims for a share of academic prestige and resources, it is vital to stake a knowledge claim. If nuclear physicists were to claim large sums of money solely because their discoveries would aid in the building of new weapons or safer nuclear power plants, this would not aid their *academic* status. (Such work, many academics might think, is more appropriate for government laboratories.) To attract top-ranking, idealistic students, academic nuclear physics portrayed itself as both highly theoretical *and* as linked to important developments in technology.

This adaptation of nuclear physics to the academic scene has both advantages and disadvantages for the groups promoting nuclear technologies. By providing academic respectability, money can be provided to the area and staff and students attracted who might otherwise choose an area where applications were more clearly beneficial. Researchers in nuclear physics are mostly doing 'pure research': it does not seem to have any practical applications, and so can be done with a clear conscience. Nevertheless, the 'pure research' results in tied knowledge. *If* the knowledge is useful to anyone outside the research community, most likely it will be useful to the military or the nuclear industry. The nuclear physics research community thus provides a reservoir of talented researchers and teachers which is selectively useful to nuclear elites.

At the same time, precisely because of the necessity to appear to be pure research, much of academic nuclear physics is of little relevance for practical applications. The nuclear weapons states have never dispensed with large government laboratories; they do not depend on academic nuclear physics. In addition, some of the more idealistic academic nuclear physicists have been critical of nuclear policies. The academic context provides them the social space to take a critical stance. Thus while academic nuclear physics may serve to legitimate nuclear policies, it also opens avenues for opposition to them.

Specialisation

The division of knowledge into disciplines is only the beginning of specialisation in learning and especially in research. The incredible narrowness of much academic research is notorious. It is found in nearly every field, from the analysis of obscure chemicals to the history of pulp mills in southern Ireland from 1905-1908.

It is commonplace to comment that modern researchers know more and more about less and less. Often the result is a sort of intellectual navel-gazing. A carpenter once put it to me somewhat differently. He said it was amazing that people could devote so much effort trying to disappear up their own rear ends.

Specialisation is not necessarily a bad thing. Some of the findings dependent on extreme specialisation are very valuable. What is important about the phenomenon is that much of it occurs in academia for reasons aside from benefits. The result is that the specialised knowledge is never brought together: no larger understanding comes of it. I have visited a number of departments in which staff did not know what their colleagues in nearby offices were doing.

What are the driving forces behind extreme specialisation? There are two main areas of influence: the internal structure of academia, and outside structures.

Academic disciplines are built around control exercised by those in the discipline, justified by the claim to exclusive rights of judgment over valid contributions. But *within* disciplines, academics are still vulnerable to challenges to their work from other academics. This is threatening, especially to those in powerful positions. Specialisation serves to protect small groups and individuals from challenge. It becomes much more difficult for others in the discipline - not to mention those outside the discipline - to examine the adequacy and value of the ideas. Specialisation thus helps to build prestige: only the specialists can understand what goes on in the area. Also, if the field is turbulent, with incursions from new researchers or ideas (perhaps even from other disciplines), specialisation provides protection. On many occasions the fundamental assumptions underlying a research area have been demolished, but specialised research continues on its merry way. Specialisation provides a stable social basis for building the self-image of academics.

In relation to groups outside academia, specialisation usually makes academic knowledge easier to monopolise by elites. Corporations and state bureaucracies are better able to hire specialists who can understand and apply specialised knowledge. For example, much biomedical research on the properties of potential drugs is ideally suited for use by large drug manufacturers. A more general and understandable analysis of drugs would permit smaller companies to exploit the knowledge, and might also allow outside critics to expose dangers and abuses more readily. From the point of view of outside elites, specialisation serves as a process of divide and rule. But disadvantages may arise for them when specialisation goes beyond or in a different direction than what is useful to them. Academic researchers may specialise in ways which build

company by an equalising of salaries at the level of the average wage.

(3) **Abolish credentials.** This would remove the role of higher education in providing occupational filters and legitimating economic inequality.

(4) **Open academic facilities to non-academics.** This would help to overcome academic knowledge monopolies. Open facilities could be linked to a programme of education with production, thereby overcoming the separation of routine and supervisory (intellectual) labour.

Carried to completion, a programme of this sort would spell the end of higher education as we know it. But such a programme cannot be contemplated in isolation. Even to make steps in these directions would require major efforts that would depend on parallel efforts in other spheres. The value of spelling out a programme for challenging the fundamental in egalitarian power relations inside and connected with academia is that it provides criteria for evaluating the direction and effectiveness of immediate campaigns. For example:

(1) **Tie knowledge to non-elites.** Consulting for trade unions or unemployed groups helps in doing this; remote academic studies of industrial relations do not.

(2) **Establish academic democracy.** Equal participation of staff and students in departmental decision-making is a step in this direction; limited student representation on governing bodies is of marginal relevance; promoting women to elite positions in itself does nothing at all to promote democracy.

(3) **Abolish credentials.** Providing more resources for voluntary recurrent education (without credentials) makes a contribution here; getting more working class students into higher education does not, nor does the stiffening or weakening of course requirements.

(4) **Open academic facilities to non-academics.** Inviting outsiders (without formal qualifications) to join in research projects is a step in this direction; changing the level of tuition or scholarships is not.

In the remaining four chapters, I examine strategies to change the function of higher education. Rather than use the goals just listed - which are not seen as goals by more than a few activists in academia - I structure the discussion by focusing on four commonly used approaches: making policy changes, doing critical teaching and research, setting up alternative educational programmes, and linking with social movements. These are not the only approaches, but they are very common ones. Although my preferences will be obvious, I should say that I don't reject or endorse any of these approaches without qualification. The aim in analysing strategies should not be to find *the* correct strategy and to dismiss all others, but rather to gain insight into the strengths and weaknesses of particular courses of action that are feasible for particular individuals and groups in particular circumstances.

Academic activists?

If knowledge for self-management is the goal, who is going to help achieve it? Certainly only a few supporters will be found among the elites in the state, corporations, professions and academia itself. The basic thrust from these areas is towards solidifying elite control. (That does not rule out fierce

type, which would tell them how the work could be organised so that word processing is only a part-time activity for anybody, and so that all workers are involved, if they wish, in a variety of tasks, including 'managerial' tasks. Also valuable is knowledge about how to struggle for such changes in the workplace. The alternative to 'knowledge for managerial control' can be called 'knowledge for self-management' or 'knowledge for democracy'.

I have been focusing on knowledge, but that is not the only or the most important factor in power systems. Self-management must confront the power of property, the power of formal positions and the power of conventional socialisation, among other things. But knowledge is increasingly interlinked with these other forms of power. That is where higher education fits in.

There are quite a few students and academics and some outsiders who are involved in higher education and who want to work for 'progressive' social change. What can they do?

One thing to do is to build alternative structures, such as learning networks, which embody desired principles. This sort of activity is vitally important. But I want to focus on challenges to existing structures, which are also vitally important. What can activists in higher education do to help promote self-management?

Some of the standard reforms do not really offer very much. One of the major thrusts of educational reformers over the past several decades has been to open up higher education to all classes and groups, notably working class, ethnic and female students. Closely related to this are the efforts to overcome discrimination in academic employment itself, in particular the domination of white middle-class males. These goals are laudable. But even if they could be achieved - which seems unlikely - they would not challenge the structure of academic hierarchy and privilege itself, nor the links between academia and the state, capitalism and the professions. The main difference would be that the groups of people who would obtain privileges through academic credentials would contain a larger proportion of women, minorities and those with working class parents.

The basic roles of higher education are in legitimating the occupational structure and the allocation of people to slots in it, and in providing knowledge which is jointly useful to academics and powerful outside groups. Critical reforms must challenge these roles. Here are some changes that would undercut the role higher education plays in supporting oppressive power systems.

(1) **Tie knowledge to non-elites.** This would challenge the links between higher education and elites in the state, corporations and the professions. Instead of pseudo-neutral academic knowledge that is selectively useful to powerful groups, a true pluralism could be the goal. The idea would be to maximise the freedom to tie knowledge in different directions, and especially to those groups lacking social and intellectual resources.

(2) **Establish academic democracy.** This would replace the power systems based on internal hierarchy, patriarchy and domination of students. Decision-making would include all interested individuals and groups in a participatory way, including non-academic groups. Academic democracy might be ac-

ademic empires with reduced outside spinoffs. The esoteric byways of econometrics are of little interest to economic managers.

Specialisation is a continuation of the process of tying knowledge that begins with the academic profession as a whole. Knowledge is developed which jointly benefits the academics and powerful outside interests. The division into disciplines reflects the jockeying for power within the academic community while also allowing different areas of knowledge to be tied to different outside interest groups. Specialisation carries this process much further, often past the point of diminishing returns to academic and non-academic elites.

Academic power struggles

It is not unknown for academics to denigrate other disciplines! A mathematician told about the meeting of a dozen economists who, asked to provide a cure for unemployment, came up with 13 different answers. The economist responded with a story about the mathematician who, when asked to add a column of numbers, only came up with a proof that the total must be a nonnegative integer. Alas, no discipline can escape the put-downs. After all, they are all *academic* disciplines.

Since power in academia is built around disciplines, power struggles take place within and around these bodies of knowledge. Powerful figures in a discipline usually rise to their positions by pursuing research of a conventional kind (often with a mild originality), typically along a narrow specialisation without much deviation. By becoming the moguls of a thin slice of knowledge, the rising stars of the discipline ward off challenges and stake claims for more influence and control. There are a number of ways in which this happens.

The most dynamic disciplines become expansionary. They tout their techniques and approaches as suitable for a whole range of problems. Traditional economics is the most expansionary of the social sciences. This is because it is connected with a very powerful outside interest, namely the state and corporate managers of the economic system, and also because it has developed strong internal cohesion through a sophisticated mathematical foundation. (The limited practical value of neoclassical economics to practical economic policy-making, and the fundamental flaws in its mathematical foundations, do not seem to have dented the power of the academic economists significantly. The key is the political strength of the claims by economists, not the practical use or scholarly soundness of the claims.) The framework and methods used in neoclassical economics are being taken up in some related disciplines, notably political science and sociology, and having an impact far afield such as in education and environmental studies. In terms of ideas, this means that fundamental assumptions of neoclassical economics, such as the primacy of the market and the autonomous nature of individual preferences, are adopted in other areas. In terms of people and positions, it means that people in other disciplines using economic approaches are given positions, research funds and promotions, and that economists can be chosen for positions in other fields.

A different strategy used in academic power struggles is closure: the cutting off of 'fringe' perspectives or individuals by demanding adherence to a

particular core of knowledge. Closure is typically used by an in-group to eliminate challengers who threaten to usurp resources or positions of influence.

One of the most important consequences of the division of knowledge into disciplines is the squeezing out of anyone who does not fit nicely inside the usual frameworks. Those whose scholarship cuts across the disciplines or which is tied to powerless groups are often hard pressed to find a position inside academia where they can concentrate on their interests. This applies to feminists, anarchists, peace researchers, and students of industrial democracy, holistic health and exploitation of animals. The usual way to survive is to do sufficient work within a traditional discipline to obtain and hold a job, and to pursue the 'fringe' topic in the remaining time available. The areas which fall outside the disciplines thus provide fewer career opportunities and lack the status of disciplinary work.

The dominant strand of neoclassical economics may be expansionary in relation to other disciplines, but the discipline of economics itself uses closure to ward off challenges from alternative perspectives. The main challenger at present is political economy, which rejects many of the fundamental assumptions of neoclassical economics and puts in their place such things as an analysis of the ownership and control of the means of production, and the role of oligopoly, the state and working class opposition in shaping the dynamics of the economic process. Some broadminded economists are undoubtedly happy to join (or lead) a broad-based economics discipline which includes both neoclassical and political economists, and others. But many economists who have built their careers and their self-images on the neoclassical perspective find political economy a major threat.

Neo-classical economists draw strength from career, personal and ideological links with major corporations and their supporters in the state. Political economists potentially can draw strength from links with social democratic parties and left-leaning state bureaucrats who want to increase the power of the state (or sometimes, more radically, the workers) in relation to monopoly capital.

At Sydney University, where the closure strategy was used against political economy, a struggle went on for over a decade. To oppose demands for political economy by students and by a minority of economics department staff, the key academics in the economics department opposed the introduction of political economy courses, terminated the positions of tutors favouring political economy, discriminated against students pursuing political economy, appointed their own followers into staff vacancies, and consistently opposed the creation of a separate political economy department. The political economists organised themselves cohesively to promote autonomy of political economy courses and staff. Major student protests played an important role in the push for political economy.

On both sides there was mobilisation around a core of knowledge as a means to maintain or seize control of the organisational autonomy and resources of a university department. Closure is a strategy of creating internal unity and exorcising dissent. So although it might be imagined that academics

which power systems may be built around sex, ethnicity and so forth?

These and many other questions remain to be answered. Few academics have done much to help answer them.

It is often argued that the precise details of a self-managing society are not so very important, since they will be decided by the people involved. I think this argument is a cop-out. Nevertheless, it is possible to move in the direction of self-management without knowing the precise end point, using the anarchist principle of incorporating the ends in the means. If the goal is participatory decision-making, then groups promoting this goal should base their own decision-making on participatory means such as consensus. If the goal is a nonviolent world, then the means used to attain it should be nonviolent.

This may seem to be an obvious principle, but it is surprising how many major policies and social structures are based on the alternative principle that the ends justify the means. Attaining 'peace' through military build-ups is an obvious example. Another is helping the poor by giving money to the rich under the guise of promoting economic growth. Another is building 'communism' through increasing state power. Yet another is promoting curiosity and the love of learning through compulsory schooling.

Retying knowledge

What would be the role of knowledge in a self-managed society? The bulk of present-day specialist knowledge which is tied to privileged groups is clearly unsuitable. The alternative is knowledge which is widely accessible, understandable and useable. Instead of knowledge being oriented to the interests of privileged groups, it would be designed to benefit people in a participatory democracy.

This does not mean that knowledge is neutral, which can never be the case. All knowledge is more useful for some purposes than for others.

The alternative to present-day tied knowledge might be called 'democratic knowledge.' As nice as this sounds, I think the terminology of 'democratising knowledge' carries a misleading connotation, namely that what is required is to make it possible for anyone to use the knowledge. But that is hardly sufficient: what point is there in democratising knowledge about how to torture people? The aim should not be merely to spread existing knowledge around to more people - in other words, to 'untie' it - but rather to create and spread knowledge which is especially suitable for democratic purposes. This is a project of 'retying' knowledge: designing its form and content so that it is relatively easy to use in ways which benefit the collective interest and harder to use in ways which benefit special interests at the expense of others.

A typical body of tied knowledge is that embodied in a computer-monitored production process - such as computer key boarding - in which the workers are subject to control which they cannot understand or alter. Simply telling the workers how the computer manager works will not help them all that much, unless they understand enough to disable or reprogramme the computer as part of industrial action for better conditions. What is needed to overcome the subordination of the workers is knowledge of a completely different

lot.

In such a society, people would have more control over their lives. With decentralisation and local production, it would be natural for decisions about work priorities, community development, health and education to be made by the local communities concerned.

Local control serves the community's interest and also makes life vital and stimulating. A good way of deciding how society should be structured is to try to maximise each person's direct influence over the important decisions which may affect their life.

In such a society, no one would be forced to use communal facilities or to adopt a number of work roles. What would be different is the social structures that make it easy for people to do some things and harder to do others. If it were easy to enter a different occupation, more people would do so. There is no question of forcing people to change their needs or preferences. But what can change is the social structures through which people express their needs and preferences.

Is such an alternative society viable? It is impossible to say for sure without creating the society and seeing if it works. But there is quite a lot of evidence suggesting the value in moving towards self-management. Anthropological evidence shows that societies have existed in which organised violence does not occur. Furthermore, these nonviolent societies are much more egalitarian than violent societies. This suggests that warfare is a product of social systems rather than innate drives. Research on industrial democracy and job design shows that high economic productivity is quite compatible with an organisation of work in which workers collectively control their efforts. Indeed, productivity is often much higher without managers. It is also technically feasible to have local self-reliance in energy, transport, food and production of goods. And so on.

'Research shows' that self-management is possible, viable and a jolly time for all! Well not quite. There are still a lot of gaps in the vision of a self-managing society: much of it remains a vision. One problem is how to organise large-scale decision-making in a way which maintains grassroots participation and does not allow a power elite to develop among representatives. There are ways and examples of doing this, but more study and experimentation need to be done. Another problem is allocating the economic product: can a system be set up in which people voluntarily choose to abide by the principle 'from each according to their ability, to each according to their needs'?

Another issue is pluralism. In a self-managed society there would be a great diffusion of power, and this would permit the development of considerable diversity within and between communities. For example, one group or neighbourhood might foster a particular interest in the visual arts while another might make a special study of computer systems. One community might encourage collective living while another might be built around private life styles for individuals or small groups. Pluralism and diversity sound nice, but do they give too much scope for development of the oppressive village mentality in which individual expression and social innovation are discouraged and in

always want *more* resources to increase their power, actually in many cases they prefer contraction, just so long as it is opponents who are the ones being contracted more. Of course, once a satisfactory degree of ideological unity is achieved, then expansion inside and outside the discipline can occur under the hegemony of the dominant perspective.

There are more perspectives on economics than neoclassical economics and political economy. Some of the alternatives with more far-reaching critiques of dominant assumptions, such as humanistic economics and Gandhian economics, have no power base at all, just a few fringe supporters inside academia in a variety of departments. Because they have no power base inside higher education, it is very hard for them to make headway. Certainly the existence of a potent critique, a synthesising vision or a useful framework for developing theory and applications is not sufficient.

In many disciplines there is an ongoing struggle by non-Marxists to hold power in the face of challenges by Marxists. But these sorts of struggles are not unique to the social sciences. At the Australian National University, I witnessed long battles between pure and applied mathematicians for control of departmental prerogatives. This included denigration of the other side's talents and activities, appointment of supporters, encroachment on course content to steal the middle ground, and inability to agree on allocation of resources to proposed common courses. Claims about the definition of a 'mathematician' were used to exclude appointments or promotions to those too far from the conception of the key power-brokers. In this struggle, the ideological resource of the pure mathematicians is the autonomy of their knowledge from other departments and thus the prestige of pure mathematics as a 'higher knowledge' than other disciplines. Applied mathematics, to the extent that neighbouring disciplines overlap with it, is harder to establish as a separate knowledge base. Hence in a struggle with pure mathematics, applied mathematicians instead can form alliances with neighbouring disciplines such as theoretical physics and computer science. The outcome of battles between pure and applied mathematicians will depend on the balance between the advantages to pure mathematicians given by greater internal control over knowledge in the discipline and advantages to applied mathematicians given by the interests and demands of related disciplines. The intrinsic political advantages to pure mathematics are such that in many universities applied mathematics does not exist as a separate department, and the subject matter of applied mathematics is taught in the departments of physics, biology, psychology and other areas where mathematics is applied.

More common than major struggles are the minor adaptations of academics to the gradually changing configuration of power across different disciplines. When student numbers in science courses are high, a mathematics department will normally orient some of its courses to provide mathematical training for the science students. If this is not done, the science departments may teach much of the mathematics themselves, and the mathematics department will lose out on student enrolments and staff appointments. Thus the mathematics curriculum to some extent will be tied to the science curriculum.

But in many places in the 1970s and 1980s there was a 'swing away from science.' Student numbers dropped. For the science departments, there were not many options. But for mathematics departments, there was the possibility of catering for the rising numbers of computer science students. Tying the mathematics curriculum more to computer science becomes a way to maintain student and staff numbers.

Whether this is possible or likely depends on the general structure of the curriculum, and in particular the location of computer science in the array of departments. When computers were first introduced into academia, their organisational location often depended on the initiative of particular individuals or departments. Computer science as a discipline has had its beginnings as part of a variety of departments, including electrical engineering, physics, mathematics and economics. The past configuration linking bodies of knowledge and organisation of staff and resources has a major impact on the future evolution of the system.

The tying of a discipline's curriculum or research to bodies of knowledge in other disciplines illustrates well the 'automatic' nature of many shifts in academic knowledge and power. It is not a nasty, scheming tactic to adapt a curriculum to the area where the students are: it is only good sense given the structure of academia as it is. Likewise, even the major battles within and between departments and disciplines reflect the availability of rewards and tools to fight with. These struggles do not arise solely because some academics are nasty and scheming, though undoubtedly some are. Rather, academics believe sincerely in the rightness of what they are doing: they are committed to a particular body of knowledge, and believe that students and the community will suffer if it is adulterated or distorted. It just so happens that these beliefs serve the interests of particular disciplines, departments and academics. What makes the struggles so persistent and often so ruthless is the combination of personal gains and sincere beliefs.

Interdisciplinary studies

The process of increasing specialisation brings on a demand for interdisciplinary studies. Most social problems - unemployment, environmental damage, inequality, alienation - cut across the standard academic disciplines, not to mention the specialisations. The result is a demand by all sorts of groups for problem-centred education and research.

The problem is that interdisciplinary studies often pose a challenge to academic power centred on the disciplines. Individuals who rose to prominence by doing research in a narrow speciality find that resources are being claimed by interlopers without specialist knowledge. Even worse, challenges to disciplinary knowledge frameworks may emanate from holistic programmes. Because so much of academic culture is built around adherence to disciplinary frameworks, and so much of academic power is built around empires centred on disciplines, interdisciplinary programmes are often greeted with great hostility by powerful academics.

Support for interdisciplinary programmes comes from a range of

Reforms can be useful, but more fundamental changes are required. (The problems with slavery went deeper than nasty and unscrupulous owners.) What these changes are is another big question.

Self-management

One possible alternative goes under the name of self-management, which essentially means people directly controlling the basic conditions of their own lives. Self-management provides a general goal for many feminists, environmentalists, anarchists and others. Although initiatives towards self-management seldom have a high political or intellectual profile, they are pervasive in all sorts of grassroots arenas, not least in the educational field.

Here is my own picture of self-management. Some of the basic desirable features of a self-managed society are:

- guaranteed provision of material needs (food, shelter, clothing);
- opportunities and encouragement for all to engage in satisfying labour;
- opportunities and encouragement for all to participate in decision-making at a local level;
- social justice, including elimination of power or privilege based on factors such as gender, ethnic origin and age;
- nonviolent means for settling disputes and for defence of the community;
- environmentally sensible life styles;
- opportunities for learning, artistic and spiritual activities.

This is only a partial list, but let me proceed to what it is likely to mean in practice.

One feature would be that production facilities would no longer be owned and controlled by a few. Instead, decisions about production and work would be made by workers and members of the community. Private ownership of goods might still be thought desirable, but the control of other people's labour would not be permitted.

Work would be decentralised to a much greater degree than now. Instead of goods being produced centrally, designs would be encouraged which enabled people to easily build and repair their own goods. Another feature would be a greater reliance on community facilities: public transport, washers, power tools, boats, hot water heaters and garden plots for groups of households.

There would also be less specialisation in labour tasks. Instead of being forced to do lifting or typing all day to earn a living, people would be able (if they wished) to engage in a variety of tasks.

Finally, formal hierarchies would not be the basis for relations between people: no one would be able to exert power over others by virtue of their position alone. Expertise, exceptional ability, experience and leadership would still exist, but they would not form the basis for formally constituted authority. Instead, people with expertise or other skills would exert an influence on decision-making through their utility to the group. Members of groups constituted for large-scale decision-making might be chosen as revocable delegates, or by

TOWARDS DEMOCRACY?

CHAPTER 11

In previous chapters I have described power systems with which higher education is intertwined. But so what? What's wrong with the state, capitalism, etc.? Isn't higher education pretty much all right the way it is, aside from a few needed reforms?

This is not the place to present an indictment of power structures, but a few illustrative consequences can be listed.

War. In modern societies, war is organised violence between military forces waged on behalf of states. Much academic research serves to develop military technologies and organisation. More importantly, much academic knowledge, by its direct application or ideological use, serves to bolster the power of the state.

Economic exploitation. This includes the allocation of the economic product, which results in unemployment and poverty for some. It includes alienating labour, which is imposed on workers by job structures that are designed to maintain managerial control. It includes priorities for economic investment that are geared for profit rather than social use. It includes ruthless exploitation of poor people in poor countries by the diversion of resources into completely inappropriate and often corrupt modern sectors. Much of the economic exploitation in capitalist countries is the result of the capitalist system, which itself is closely linked to state power. Much academic knowledge and training are oriented towards serving this system.

Occupation stratification. Academic credentials are part of the overall system which allocates people to occupations in a way which seems to be based on merit but actually legitimates unnecessary inequality.

Patriarchy. Academia by and large reproduces the system of male domination.

There are of course many other social problems, ranging from political repression to racism. My point is that present-day society is very far from being the best of all possible worlds, and that higher education is linked to the dominant social structures which are at the root of many major social problems.

What is the alternative? That's the big question, and one that has many answers. One standard answer is that there are no real alternatives: military preparations are necessary to defend against the communist (or capitalist) threat, economic inequality is necessary to maintain economic growth, and so forth. Another standard answer is that the basic structures are all right, but considerable reforms in them are required: arms control agreements, policies to overcome inequality of opportunity, and so forth.

My own view is that the major social problems are not going to go away simply through reforms - and even achieving reforms is a major enterprise.

sources: from social movements such as the women's movement, from the politicians and business executives who want graduates who are able to take a broader view, and from many academics who are frustrated by the procrustean disciplinary beds. The result is a continual battle between the proponents and opponents of interdisciplinary studies.

One manifestation of the power of the disciplinary system is the collapse of many nobly designed interdisciplinary programmes. The *theory* of linking learning and research across disciplines and of focusing on problems rather than fragmented approaches is very persuasive in many circles. Some top-level administrators - who, because of their position, are less dependent on a disciplinary power base - are very sympathetic to synthesising visions. The result is that programmes, faculties and entire institutions have been set up in ways designed to foster cross-disciplinary collaboration and integrated teaching and research.

For example, La Trobe University in Melbourne opened in 1966 with a broad non-disciplinary framework. All the visions were nice, but in only a few years the organisational structure reverted to the usual disciplinary form. Why? First, the multidisciplinary 'schools' at La Trobe were based on the usual academic hierarchy, with professors at the top and so forth down the line. This meant that the usual power struggles for building empires were brought into play. Narrow knowledge frameworks are a possible way to claim resources, and so pressures developed from the professors for traditional disciplines. Second, the wider academic community provided an indirect pressure: journals, conferences, colleague networks - which provided the basis for advancement in other places - remained. Third, the initial people appointed to top positions were chosen because of their traditional academic achievements! Appointees were not required to have a commitment to, or even an understanding of, the planned La Trobe structure. Without special commitment, the plan had little chance of success. It did not create a culture or structure to undermine disciplinary fragmentation, nor was it staffed with people to carry out the changes.

The La Trobe experiment was only one of a great many in different parts of the world. Not all ended so quickly and ignominiously, though many did.

This account may give the impression that disciplines are evil and that interdisciplinary studies provide salvation. That is far from reality. It is worth spelling out some of the limitations of interdisciplinary studies.

- Problem-centred study and research sounds very socially useful. Indeed - but useful for what purpose? The military for example is interested in interdisciplinary teams for looking at problems which it faces. This may be to examine programmes of biological warfare, to build cohesion among the troops, or to predict future political developments and resource needs. Corporations and state bureaucracies are often much more interested in problem-centred studies than are academics, because they need to solve problems, not just add to a pile of patchwork knowledge.

- Rather than providing an integrated view of a problem or area, combining the contributions of different disciplines may simply do no more than that: sum up the different perspectives. The result can be called multidisciplinary as opposed to transdisciplinary. For example, in looking at poverty, a multidisciplinary study might provide an economic view, a psychological view and political science view, without resolving contradictions or providing any insight not already available in the separate views.
- Another danger is that an 'interdisciplinary' study will be dominated by a single discipline. The other disciplinary contributions then provide legitimisation by suggesting that perspectives have been included which really had no fundamental impact. In environmental economics for example, environmental impacts may be included as 'externalities' in an otherwise standard economic analysis. This means that environmental impacts *seem* to be included but really are subordinated to the economic perspective.
- To prevent attacks from disciplines, some interdisciplinary programmes develop their own paradigm. The resulting 'holistic' body of knowledge can then be used to claim resources and privileges in the usual competition between disciplines. The danger is that the programme may become locked into its own perspective and not maintain the flexibility and openness which were reasons for setting up the programme in the first place. This process is basically one by which the disciplinary power structure fosters adaptation by challengers to its own mould.
- If a programme does not develop and control its own knowledge framework, the danger is that there is no firm analysis and that courses and studies will simply skate over the top of issues. Such a programme will be vulnerable to attack since others can see what is happening and claim that their own more opaque approaches are doing the job better.
- Finally, interdisciplinary programmes are not necessarily nice to work in. They can be collegial and friendly, but they also can be just as nasty as any traditional department. Knowledge, hierarchy and external relations are organised differently - but this does not guarantee harmony. For example, people organising courses or research programmes can use their claim to be more truly holistic to exclude others with a different approach which is stigmatised as too narrow. Instead of closure working to exclude those on the boundaries of the discipline, interdisciplinary closure can work to exclude those who are not sufficiently 'holistic.' In both cases, power blocs use their claims over what is the proper approach to knowledge to promote their own individual and collective interests, which may of course be tied to the internal hierarchy, to outside groups, or to male domination.

Marxism: opiate of the academics?

Another alternative to disciplinary power is some sort of synthesising vision. One possibility is the traditional ideal of liberal education, which aims to provide an overall picture of the unity of knowledge. In practice, liberal edu-

als.

- Ivan Illich et al., *Disabling professions* (London: Marion Boyars, 1977). Essays on how professions turn people into consumers dependent on professional treatments.
- Terence J. Johnson, *Professions and Power* (London: Macmillan, 1972). An abstract critical account of conventional analyses of professions.
- Magali Sarfatti Larson, *The rise of professionalism: a sociological analysis* (Berkeley: University of California Press, 1977). An abstract penetrating analysis of the development and dynamics of professions.
- Edwin T. Layton, Jr., *The revolt of the engineers: social responsibility and the American engineering profession* (Cleveland: Case Western Reserve University Press, 1971). The dynamics of the engineering profession and US capitalism.
- Jethro K. Lieberman, *The tyranny of the experts: how professionals are closing the open society* (New York: Walker and Company, 1970). An example-filled account of how professional groups use legal and institutional means to protect their vested interests, described within a liberal critique of democratic pluralist society.
- Frank Parkin, *Marxism and class theory: a bourgeois critique* (London: Tavistock, 1979), chapters 4 to 6. Material on social closure as an alternative to class-based approaches.
- On the attitudes of British academics to tertiary expansion in the 1960s see Gareth Williams, Tessa Blackstone and David Metcalf, *The academic labour market: economic and social aspects of a profession* (Amsterdam: Elsevier, 1974).
- On the de facto black list of nonstandard cancer therapies, see Ralph W. Moss, *The cancer syndrome* (New York: Grove Press, 1980).
- On the *Progressive* case see the *Progressive* itself from 1979 onwards, and Howard Morland, *The secret that exploded* (New York: Random House, 1981).
- On the Caucus for a New Political Science, see the journal *New political science*.

bureaucracies.

Second, the state, or any other 'alternative master', seldom resembles a neutral servant of the people. Professional dominance is simply traded in for dominance by some other vested interest.

Third, a takeover of a profession does not always lead to a weakening of the controlling function of professional knowledge. The mechanisms of professional dominance, rather than being dissolved, are turned to the service of the new masters. State-run medical services are not noted for any diminution of the monopolisation of medical knowledge. What happens in such cases is that professional knowledge, rather than mainly serving the separate interests of the professionals, is linked to the controlling or regulating body - not to the clients or the general public.

Deprofessionalisation. Doing away with professional services is the solution posed by Ivan Illich and others. Instead, there would be free access to information and skills. People could do things for themselves without relying on licensed experts, or they could consult experts without being dependent on them.

In the sphere of education, deprofessionalisation is called deschooling. People would study and do research as part of everyday life - in homes, in factories, in voluntary study groups - rather than via the ministrations of educational professionals.

What deprofessionalisation means in practice has always been rather vague. If professional monopolies - compulsory schooling, medical monopolies, high-speed transport systems - were abolished in present society without other changes, what would happen is a shift in power from professions to the state and capital. A strategy to achieve deprofessionalisation without this consequence - in other words, to reduce the power of professions while at the same time challenging state power, capitalism, patriarchy, etc. - has not really been spelled out.

References

- Randall Collins, *The credential society: an historical sociology of education and stratification* (New York: Academic Press, 1979). The politics of organisations, culture, education, professions and the sinecure society.
- Charles Derber, William A. Schwartz and Yale Magrass, *Power in the highest degree: professionals and the rise of a new mandarin order* (New York: Oxford University Press, 1990). On professionals as a powerful interest group.
- Ronald Dore, *The diploma disease: education, qualification and development* (London: Allen and Unwin, 1976). An illuminating treatment of the explosion of formal education in poor countries due to the role of credentials in allowing entry into modern sector jobs.
- Eliot Freidson, *Professional dominance: the social structure of medical care* (New York: Atherton, 1970). A clear exposition of the use of professional knowledge and skills to dominate clients and other profession-

cation has had no unifying perspective. It turns out to be little more than a synthesis of disciplinary perspectives, and as a result quickly breaks down in the face of disciplinary power.

An alternative synthesising vision might be provided by Marxism, feminism or some brand of humanism. Here I look at the relation of Marxism to disciplinary power.

Since the 1960s, the number of Marxist scholars in academia has changed from a marginal few to a respectable, though often small, minority. Modern academic Marxism is booming. There are numerous scholarly journals, conferences and courses. Many academic Marxists continue to face discrimination and hostility, but in quite a few departments they are treated like other staff members. Marxism has well and truly breached the walls of academia.

At the same time, academic Marxism is almost entirely restricted to academia. Few members of the manual working class take any interest in the latest theories of the state. In making the entry to academia, Marxism has become more academic than almost any other approach to the social sciences. Marxist journals - and many of the top Marxist theorists - are filled with esoteric theory, abstract theoretical frameworks and special jargon. This can be seen as an adaptation to the academic system: to defend their academic positions, Marxists have made their work very scholarly and exclusive: no one else can penetrate it, so academic Marxists can claim sole right to evaluate it.

Academic Marxism has adapted to the traditional disciplinary framework without too much trouble. There are Marxist geographers, Marxist anthropologists and Marxist students of literature as well as the more typical Marxist economists, political scientists and sociologists. Marxist scholars in different disciplines do feel an affinity, but then so do bourgeois scholars after all.

Academic Marxism has also adapted to academia by separating itself from political practice. Marxist theoretical tracts typically contain masses of abstruse analysis, with a few pages or paragraphs tacked onto the end dealing with 'what to do.' Unlike those writings in business or popular psychology which provide lots of practical advice, it is rare to find a practical manual for political action written by an academic Marxist.

Why has Marxism made such headway in academia? It does provide a rigorous theoretical framework, which is valuable for establishing a claim to intellectual territory. But what is the special attraction of an analysis of the mode of production and class struggle? One attraction is that this type of analysis - at least when made highly theoretical and abstruse - is more tied to the interests of academic intellectuals than is more 'practical' social science, which often is oriented to direct practical or ideological use by the state or corporations. Marxism is attractive even to some non-Marxists because it raises the status of academic intellectuals - at least if taken in a moderate dose.

In as much as Marxist analysis has practical applications, for example through the field of political economy, it is oriented to action by social democratic governments and state bureaucracies. This arena for application has a

greater affinity to many academics than does the corporate sector, since the state allegedly acts on the basis of administrative rationality whereas capitalism operates on the basis of profit and the ownership of capital. Trends in the past few decades suggest that there are increasing prospects for academics to become politicians or state administrators as opposed to corporate executives or entrepreneurs.

There is one other important attraction found in Marxism: it puts intellectuals in a privileged place in the theory itself. Intellectuals have always played a major role in socialist politics. They are the ones who can cut through the 'false consciousness' of the workers, grasp the contradictions in the mode of production and discover the points for intervention. It is no coincidence that academic Marxism is opaque to the working class.

References

- On the nature of disciplines, see Tony Becher, *Academic tribes and territories: intellectual enquiry and the cultures of disciplines* (Milton Keynes: Society for Research into Higher Education/Open University Press, 1989).
- There are a great number of critiques of individual disciplines, though perhaps not as many as might be expected. I list here only a few of more general interest.
- Stanislav Andreski, *Social sciences as sorcery* (New York: St. Martin's Press, 1973). A blunt, scathing and refreshing blast at the social sciences (with economics partly excepted), with many amusing and cutting observations about academia generally.
- Robin Blackburn (ed.), *Ideology in social science: readings in critical social theory* (Glasgow: Fontana, 1972). A good collection of critiques of disciplines.
- Robert Lilienfeld, *The Rise of Systems Theory: An Ideological Analysis* (New York: Wiley, 1978). An account of the links between the social role and the ideas of 'systems thinkers.'
- Bertell Ollman and Edward Vernoff (eds), *The Left academy: Marxist scholarship on American Campuses* (New York: McGraw-Hill, 1982). A useful summary of Marxist perspectives in different disciplines.
- Trevor Pateman (ed.), *Counter course: a handbook for course criticism* (Harmondsworth: Penguin, 1972). A good collection of critiques of disciplines.
- A good presentation of the sociology of knowledge is given by Peter L. Berger and Thomas Luckmann, *The social construction of reality* (Garden City, New York: Doubleday, 1966).
- The values built into evolutionary theory are analysed for example by Robert M. Young, 'The historiographic and ideological contexts of the nineteenth-century debate on man's place in nature', in: Mikulas Teich and Robert M. Young (eds), *Changing perspectives in the history of science* (London: Heinemann, 1973), pp. 344-438.
- On the relation between the organisation of knowledge and social power, a

nity. But a small number of nuclear scientists and engineers have publicly opposed nuclear power. In essence, these counter-experts have sided with the anti-nuclear movement or cause rather than with the source of political power most closely tied with professional interests, namely the nuclear power industry.

There have also been a number of counter-experts who come from outside the profession. Some of the most effective anti-nuclear power experts have been self-taught, such as economist Dan Ford of the Union of Concerned Scientists in the US.

A more collective form of counter-expertise is the radical caucus: a group of people in a profession who organise to develop alternative viewpoints. Radical caucuses of various types have developed in a range of academic disciplines. The discipline of political science in the US is in its conceptual frameworks and activities largely supportive of the prevailing political system. The Caucus for a New Political Science takes a much more leftist position. For example, it organises symposia at political science conventions in areas such as the relationship between the economic and cultural left.

Radical caucuses are essentially a way of tying a segment of a profession to a group - such as the working class - different from the group to which the mainstream of the profession is tied. As discussed in chapter 5, most professions are patriarchal, and with the resurgence of the feminist movement since the 1970s one of the most widespread radical caucuses has been women's caucuses.

The major limitation of counter-experts and radical caucuses is that they often remain tied to professional values. In many cases they remain committed to the importance of professional knowledge and expertise. The difference is that this knowledge is to be used to support a different group or stance. The ends are different, but the professional means are the same. This would not matter except that means often shape the ends.

Alternative masters. One way to overcome dominance by professionals is for the professionals to be dominated themselves. This is a continuing possibility in the struggles between professions and key structures including the state and capitalism.

When the 'alternative masters' solution is proposed, it naturally assumes that the new controllers serve the greater good. This perspective is especially prevalent in those sections of the left that look to the state to provide a solution to the problems of inequality and class domination. Just as nationalisation or state regulation is seen as overcoming capitalist exploitation in business and industry, so state control over professional services is advocated to curb professional exploitation. Conflicts between state bureaucracies and the medical profession are the most obvious manifestation of the struggle at this level.

There are several shortcomings to the alternative masters approach. First, state regulation may in fact turn out to serve rather than control the profession. The profession - or members of the professional elite at least - may take over the regulating body, which typically is part of the state bureaucracy. In many countries, elite academics hold powerful positions in state educational

academics lose out in terms of salaries and conditions. The increased support for academic trade unions is a response to this altered political scene, but one that strikes at the self-image of traditional academics.

Alternatives to professional dominance

Many professions have a great deal of power, and often this is used in ways that are not beneficial to the wider community, such as when the medical profession fosters curative approaches and downgrades social promotion of good health. There are a number of ways in which groups have responded to the problems generated by professional power.

Social responsibility. When social problems associated with particular professions become particularly acute and, more importantly, widely recognised outside the profession, groups of professionals may organise to promote 'social responsibility'. Essentially this is a response based on the usual professional goal of self-regulation, only in this case the regulation goes beyond internal affairs to encompass the wider social impacts associated with the profession.

In the late 1960s and early 1970s there was widespread social concern about the effects of science and technology. Such concern had first become a major issue with the development of nuclear weapons. The rise of environmental concern in the late 1960s combined with the social ferment at time led to some vocal attacks on science and technology and a decline in public support. One response was the setting up of groups of scientists and engineers who spoke out and took action on issues such as pollution and the military use of science and technology. Their basic orientation was that scientists and engineers, because of their moral concern, should put their own house in order.

The stance of 'social responsibility of professionals' is inherently unstable. It depends on a group of professionals being openly critical about the uses of professional knowledge, but at the same time restricting the challenge to reform of the profession stimulated by the social concern of the professionals themselves.

If the insider criticism of the profession is sustained and penetrating, it helps undercut the power of the profession itself. This is seen as 'going too far' by those reformist critics who are basically committed to the profession. On the other hand, a mild stance does not satisfy external critics and may easily degenerate into inaction. Once the social ferment that stimulated the social responsibility stance subsides, the remaining activists become open to attack from within the profession or to cooption up the career ladder. The social responsibility in science movements in the United States, Britain and Australia mostly dissolved by the mid to late 1970s. What remained or developed was a radical core.

Counter-experts and radical caucuses. Counter-experts are similar to professional experts, except that they support a stance that is critical of the dominant professional viewpoint. In the public debate about nuclear power, most of the nuclear research community supported nuclear power, and most of the public proponents of nuclear power were provided by the nuclear commu-

classic discussion is Basil Bernstein, 'On the classification and framing of educational knowledge', in: Basil Bernstein, *Class, codes and control Volume 1: Theoretical studies towards a sociology of language* (London: Routledge and Kegan Paul, 1971), pp. 202-230.

On struggles over political economy, see Evan Jones and Frank Stilwell, 'Political economy at the University of Sydney,' in: Brian Martin, C. M. Ann Baker, Clyde Manwell and Cedric Pugh (eds.), *Intellectual Suppression: Australian Case Histories, Analysis and Responses* (Sydney: Angus & Robertson, 1986), pp. 24-38.

On the La Trobe example, see Neil Marshall, 'La Trobe University: the vision and the reality', in: Stephen Murray-Smith (ed.), *Melbourne Studies in Education* (Melbourne: Melbourne University Press, 1981), pp. 1-41. On the similar fate of British 'plateglass universities' set up in the 1960s around more integrated curricula, see Peter Wilby, 'New bottles, old wine', *Studies in Higher Education*, vol. 1, 1976, pp. 245-250.

PATRIARCHY

CHAPTER 5

Jane Smith - not her real name - is an Australian social scientist with an outstanding record of scholarly performance. Yet for many years she was unable to obtain more than short term appointments in academia. One particularly blatant case of discrimination occurred when she applied for a post in a university department. At the time she held her PhD, had published a number of articles and also was the author of a major book released by a prestigious academic publisher. Her speciality was closely related to the one desired by the department. Many people were dismayed when another person was appointed: a young man with no advanced degree, whose sole publication was a book review, and whose area of specialisation was unrelated to the one specified in the advertisement.

Sex discrimination? It seems to have played a major role in the appointment. Jane Smith is not only a talented and productive scholar. She is also a strong and resourceful woman, and hence is threatening to many male academics.

As is usual in such cases, it is very difficult to *prove* discrimination, though the evidence can be quite convincing. But to show the existence of some sort of general bias against women becoming academics is not so hard. It is well known that there are no substantive differences between the average intellectual capabilities of men and women. Hence, somewhere between birth and elevation to the top echelons of academia there must exist substantial overt or structural bias against women.

This conclusion is obvious. Its implications are far-reaching. It suggests, for example, that given the same opportunities and encouragement, the wife, undergraduate student or secretary of the average academic would have done the job as well or better.

To explain the subordinate position of women in academia, the concept of patriarchy is valuable. Patriarchy is the collective domination of men over women which occurs through a wide range of social relationships in society. Patriarchy is expressed for example in:

- the gender division of labour in the home and in the workplace;
- rape and other violence by men against women;
- control by men of elite positions in the state, corporations, trade unions, churches, professions and other spheres;
- Socialisation practices by which boys and men are expected and encouraged to be independent, aggressive and emotionally inhibited and girls and women are expected and encouraged to be dependent, passive and emotionally expressive.

Patriarchy is an extremely pervasive system of power. Most major

Reading Morland's article 'The secret of the H-bomb' in retrospect, and just looking at the information provided, it is hard to see what all the fuss was about. What was at stake was not a 'national secret' but rather the power of the complex of nuclear weapons researchers and the nuclear policy-makers in the state.

Changing power relations

The relations between professions and the structures of the state and capitalism are constantly being challenged and renegotiated. One important long-term shift is the increase in the power of the state which is manifested in increased bureaucratic control over the affairs of professions. The responses of professions to this trend reveal their contradictory relationship with the state.

In the 1960s the tertiary education sector in Britain underwent a large expansion, an expansion identified with the Robbins Report which advocated and justified it. Many academics favoured the large increase in students, institutions and staff, and the associated increase in government funding for higher education. This is not too surprising. With more money and more positions available, academics already in the system had considerably increased opportunities for advancement. Also, there were obvious prospects for the increased influence of academics generally.

Therefore, it is perhaps surprising that a majority of British academics at the time had substantial reservations about the expansion. Part of this may be attributed to simple conservatism. But other factors are relevant. Expansion may provide opportunities for some academics, but it also poses threats. Stable power relationships and familiar routines come under attack. The expansion brings in its wake a more powerful bureaucracy to administer the larger finances and student numbers. Furthermore, if many more students obtain degrees, then the prestige of degrees themselves is devalued. Tertiary education becomes less exclusively the preserve of a social elite, and as a result the social prestige of academics may suffer.

Some academics, such as the empire builders, thrive in an expansion. Others, preferring the traditional power structures based more on social exclusiveness and collegial interactions, are less enthusiastic. The important message here is that professions are not always united internally. To the extent that they are not, they are vulnerable to control or manipulation by other powerful groups. This applies not only in the increased bureaucratic control over higher education, but also in the division of academia into different disciplines which can become linked to particular interest groups.

As control in the academic community has shifted from the profession itself to bureaucratic and managerial control, one response has been to form trade unions of academics. Here again there is a strong divergence of opinion within the academic community. Many academics adhere to the traditional image of the professional, upholding professional norms and expecting fair treatment as a natural consequence of community respect. But this attitude is at variance with the realities of bureaucratised politics, in which groups compete for social resources as power blocs. Without a voice in the bargaining system,

are not powerless in this situation, precisely because they are in possession of expert knowledge on which the state is dependent.

The nuclear professions and the state support each other through the monopolisation of nuclear knowledge and the applications of that knowledge. Both groups are opposed to weakening their joint professional-state control over nuclear knowledge.

This was apparent in the case of 'the secret of the H-bomb'. A journalist, Howard Morland, spent a number of months piecing together the key mechanism which makes possible an effective fusion weapon (also called the thermonuclear, hydrogen or H-bomb). The information was actually available in open sources, but it never had been presented in a coherent form for a non-specialist audience in the context of a critique of state military policy. Morland did not write a do-it-yourself account of how to build an H-bomb: actually, his description showed why only major technological powers can construct one. His aim was to demystify nuclear policy making.

Morland's article was planned to be published in 1979 by the *Progressive*, a prominent left-wing magazine in the United States. For the first time in US history, the government put a prior restraining order on publication on the grounds of national security. Revealingly, many leading scientists supported the government's case, including scientists known as supporters of liberal causes. The planned publication of the *Progressive* article clearly was of enormous concern both to the US government and to many scientific elites.

This response can be understood in terms of the interests of both the government and the nuclear research community in preserving a monopoly on nuclear expertise. Morland's article did not reveal anything that was not available in the public domain. Indeed, the key insight about constructing the H-bomb had been published years earlier in an encyclopaedia article by a key insider in the nuclear establishment, Edward Teller.

What Morland's article threatened to do was to provide information to a public audience in the context of state nuclear policy. It was not the technical information per se which was important, but the technical knowledge in conjunction with the political context of its use. If outsiders could become informed about nuclear technology, then they would be in a much better position to analyse and criticise policies on nuclear issues. Restriction of nuclear knowledge to the nuclear research community and to the nuclear policy-making community - and, more importantly, sustaining the claim that these communities possessed exclusive knowledge essential to policy issues - meant that criticisms could be ignored or deflected as uninformed. Morland's article threatened the legitimacy of nuclear knowledge as a basis for political power. Because the article was to be published in the *Progressive* rather than in obscure technical journals, it threatened the mystique of nuclear policy-making.

A major court case over Morland's article ensued. Many prestigious scientists supported the government, whereas only a few experts testified for the *Progressive*. While the case was proceeding, a small student newspaper published Morland's article. After this the government dropped the case, and the article was published in the *Progressive*.

social institutions have adapted to male domination. For example, the official logic of capitalism is that there should be a free market in labour power, to minimise the cost of labour to capital and to allow the allocation of labour skills to the sector of the economy where they can be best utilised. The gender division of labour, in which many women work in the home outside the wage system and many others are stuck in a restricted set of occupations, is a massive distortion of the allocation of labour that would apply a 'free market'. Similarly, systematic discrimination against women is a violation of the stated principles of bureaucracy, in which performance is supposed to be the basis of reward and advancement.

What has happened is that social institutions have developed in ways that are compatible with male domination. The capitalist system, rather than promoting sexual equality through the market, has utilised sexual inequality to prop up capitalist control. The gender division of labour may inhibit overall economic productivity, but it also allows the workforce to be divided. The loyalty of men to the employer is reinforced by their structural advantages over women.

It is not the anonymous 'capitalist system' which does this. Rather, *men* have always held the most powerful positions as capitalists and managers, and they have personally benefited from the services of their wives and female assistants. These same men have made the decisions to establish the 'family wage' and unequal pay, to hire women for only some types of jobs, and to limit the effectiveness of legislation about women's rights. These male elites themselves are the products of patriarchy, which shapes their upbringing and provides the advantages given to men at all stages in their life. They have made policy in a way which responds to the two systems of capitalism and patriarchy.

Looking at patriarchy and academia is basically an exercise in looking at how male domination has structured the academic system. The influence of academia on patriarchy, in contrast, is not so important, and in any case is a direct consequence of male domination of academia. So here I outline some of the main ways patriarchy is expressed in academia.

Overt discrimination. Cases such as Jane Smith's are the most overt expression of male domination in academia. Women who are talented and intellectually aggressive seldom progress as far or as rapidly as men of similar or lesser accomplishments.

How are discriminatory appointments and promotions justified? Quite often, no attempt is made to do this at all. It is simply assumed that women are not as good or are less suitable than men, whatever evidence is presented to the contrary.

Male academics often confront women with hidden or voiced hostilities, expectations and assumptions. For example, many women have been asked how they can reconcile their duties as mothers and scholars. Men are assumed not to encounter any difficulties in being both fathers and scholars.

Quite often, male academics have no ill will towards women at a conscious level, but hold attitudes which are deeply discriminatory. For example,

when wives and husbands collaborate on academic work, it is simply assumed that the husband did the most important part of the work (such as having all the original ideas). Or it may be assumed that a particularly brilliant idea developed by a woman was plagiarised. Another sexist assumption is that men need jobs more than women because the men have dependents to support. Often it is just the opposite!

Even more insidious is the self-fulfilling belief that women are harder to get along with, and therefore will not 'fit in'. Actually it is the men who cannot 'fit in' with women who are intellectually talented. Many men cannot tolerate women being in positions directly over them, or over other men like themselves.

Narrow-track careers. The standard career of a successful academic follows a 'narrow track': research specialisation and productivity, steady progress in appointments and promotions, changing jobs as necessary, full-time work and no gaps in employment. Anyone who does not fit this pattern is at a disadvantage. Age discrimination - discrimination against anyone who has not jumped through the appropriate hurdles at the correct stage of their career - is an important reinforcement of the narrow track.

Women are less likely to follow the narrow track. They are more likely to interrupt their career to have and rear children. They are more likely to be tied to a particular physical location - often the location of their husband's job - and be unable or unwilling to move to obtain better positions. And they are less likely to have a spouse to cook the meals, clean the house, take care of the children and provide regular emotional support while they devote evenings and weekends to their studies and research.

Overt discrimination in many cases is not needed to exclude women from an equal share of elite academic posts. Decisions made according to merit within the present system - in which 'merit' is assessed in terms of research success along a narrow track career - will inevitably discriminate against women. In my view, the dominance of the narrow-track career itself reflects the interests of men in academia.

The dominance of the narrow-track careerists, which is nicely compatible with patriarchy, also fits in well with the internal power hierarchy in academia and with disciplinary specialisation. If people off the narrow track were given preference - people who take years off to rear families, to travel or to try a variety of jobs, people who are older than the norm or who have switched fields - this would allow all sorts of undesirables into academia, not just women. The narrow track ensures that academics are fully committed to the academic system as it is.

The narrow-track career is a key aspect of what is called 'homo social reproduction': the preference by people in positions of power for people who are like themselves, for people who are following the same career path as they did. People who are different in some way are seen as a threat. Homo social reproduction in academia means that preference is given to men, to the dominant ethnic group, to the dominant social class and to disciplinary specialists who have done just enough but not too much for their age and position.

knowledge tends to exclude forms of treatment which are not easily controlled by the profession, such as nutritional prevention and therapy.

Much more frequently than doctors or lawyers, academics are directly employed by the state. Struggles for professional autonomy thus proceed within the constraint of state financing of higher education. Academics are able to use their service to other powerful groups - capitalists and other professions in particular - to obtain relative autonomy within the constraint of direct financial dependence on the state. Because of this complex political configuration, academic knowledge is less tied to the interests of a particular group - including academics themselves - than is the case in most other professions. The selective usefulness of academic knowledge varies considerably from discipline to discipline. Within business and engineering courses, an orientation to capitalist values predominates, within law courses the interests of the legal profession are primary, while within subjects such as philosophy and fine art the interests of academics themselves usually come first.

The relative autonomy given to the academic profession in decentralised educational systems thus arises from the relative balance between several powerful groups which have interests in the use of academic knowledge: the state, capitalism and the professions. This is different from the idea that academia inherently requires intellectual independence. In practice scholarship can proceed in many different intellectual frameworks and political contexts. Many of them are very narrow and directive, such as military research programmes. Many academics are employed on research grants that very tightly specify their methods and goals. Other academics work in disciplines whose paradigms are reflections of interest groups, such as the managerial perspective in commerce courses. The key to understanding how academic knowledge develops is not the dichotomy between intellectual dependence or independence but rather the particular configuration of power. Three key influences are the state, capitalism and the professions. Also important, as discussed in earlier chapters, are patriarchy and internal hierarchy.

The case of nuclear knowledge

Professional knowledge can be used to tie together a professional group and a different powerful group. Knowledge in the area of nuclear physics and engineering illustrates this well.

Prior to World War II, nuclear research was mostly the concern of academic scientists. During the war, as is well known, the United States government in particular mobilised nuclear researchers to develop nuclear weapons. This marked the beginning of the massive involvement of the state in science and technology that has become commonplace in the decades since.

Knowledge about nuclear science and technology provided the avenue for the state and the nuclear research community to become dependent on each other. Because of the vital role that nuclear weapons play in state security, the state has funded, directed and supervised a great deal of nuclear research and development. This has meant that the professions of nuclear science and engineering have become heavily dependent on the state. But nuclear professionals

expansion of professional and bureaucratic employment.

These points give an idea of Collins' perspective on professions and the role of formal education in protecting their privileges. Professions are systems created out of a struggle for power, and not least among the resources used in the struggle are credentials.

Tied knowledge

Professionals may use the various methods listed above to maximise their autonomy and status in relation to other powerful groups, but the methods are not necessarily successful. Different professions are tied to different powerful groups. The tighter the ties, the smaller is professional autonomy.

The clergy is very dependent on the church, both for salaries and for opportunities to practise. Ministers are given considerable autonomy within their ministries, but that autonomy is strongly bounded by established beliefs and practices. Professional knowledge in the ministry thus is closely tied to the institution of the church.

Quite a number of professions are primarily tied to large corporations. This applies to engineers, advertisers, accountants and journalists. When a major section of an occupational group such as engineers is employed by corporations, then even those who are not - such as engineers employed by governments or academia - often maintain a primary orientation to capitalist values.

Professions that are tied to corporations do have a professional identity, but the professional identity itself reflects capitalist values. Advertisers for example unquestioningly accept the market system and the value of advertising itself in that system. Their beliefs about what sorts of advertising are 'acceptable' closely reflect the interests of the most powerful corporate sponsors. In this case professional knowledge is tied to capitalism.

The military is basically a creature of the state, and hence the military profession is geared to the interests of the state. But since the state is not a unitary entity, the interests of the military can conflict with other groups in the state. Military knowledge is tied to both the separate interests of the military and to the wider interests of the state.

Doctors, lawyers, social workers and academics are primarily regulated by the state. Although many doctors and lawyers work for government bureaucracies - such as hospitals - a substantial fraction are self employed. Their degree of autonomy depends on the power of the profession in relation to the state. A strongly organised medical profession, such as in the United States, is able to minimise state regulation and maximise 'self-regulation'. When the state is stronger, professional autonomy is reduced, as happened with the introduction of state-controlled medical services in Britain. Whenever attempts are made by either group to seriously alter the balance of control, serious conflicts may erupt, as has occurred in Australia over payments to doctors working in public hospitals. In no case does substantial control over the profession by clients - patients - seriously arise as an issue.

Because the medical profession is relatively autonomous, professional knowledge is geared more to the interests of the profession itself. Medical

The two-person career. Many wives of academics provide not only home services - child-rearing, housework and emotional support - but also academic support. This may involve simply listening to and commenting on the male academic's ideas. Often it extends to typing theses, books and papers, reading and taking notes, proofreading, helping in the lab, and actually writing drafts or final versions of papers and books. Usually all this effort is rewarded at most by an acknowledgment: co-authorship is not that common, especially when the wife is kept to the more menial and supportive tasks.

The result is that the careers of many male academics proceed with major support from another person, thus forming a 'two-person career'. Individuals without this form of support are at a disadvantage. Women are particularly unlikely to benefit from this system, since they frequently must meet the demands of both home and work, whereas their male competitors do little 'home-work' and obtain help from their wives in their academic work. Essentially, the narrow-track, age-specified career is tailored to the interests of the traditional man with a traditional wife.

It is not uncommon for the marriages of middle-aged academics to break up. The supportive wife, having nursed the children and her husband's career, may come to demand more personal attention or seek to pursue her own career. Quite a few male academics have found it attractive to trade in their wives for younger models. There are certainly plenty of young women inside and outside academia who are attracted to the experienced male intellectual. From this point of view, a younger woman may be more attractive in appearance; much more importantly, a younger and less experienced woman is less likely to be assertive and threaten his ego. Interpersonal dominance is the name of the game.

Awareness by women of their exploitation by this system, and their refusal to continue to participate, is the major obstacle to this happy state of affairs for the men. The two-person career has few opponents as long as most men are obtaining the benefits. As relationships become more egalitarian, the biases are less likely to be accepted by either men or women.

Lack of child care. The narrow-track career has no room for children unless one's spouse takes care of them. But there are some women who could successfully compete in academia, even under the handicap of having children, if there were convenient and cheap child care. But seldom do academic organisations provide really adequate child care. The women's movement has forced some action to be taken, but it remains low priority among male decision-makers.

Gender categorisation of careers. Women are not expected to be high-powered academics. Indeed, they are not expected to be academics at all in fields such as agriculture, engineering and the physical sciences. Where women *are* expected is in the non-academic or low status academic jobs in the system: typists, secretaries, tutors. They are also more expected in the lower ranking institutions, where teaching loads are heavy and opportunities for research are few. Career lines are fairly closely specified. It is hard to move out of the tutor stream into the research stream. It is hard to move out of the low

status colleges and polytechnics to the elite universities. And it is virtually impossible to switch from being a secretary to being an academic. Certain careers are typecast as women's careers, and women are explicitly and subtly encouraged to enter them. These are the same careers that have fewer options and lower prestige.

Male bonding. Male academics compete with each other, but they also are unofficial members of a tight club based on masculine behaviour. In male-dominated departments, and in the male-dominated elite groups in academia (such as honorary societies), most women do not fit in. They stick out as an affront to the male academic culture.

This culture shows itself in many small ways: in discussions about sport and about women, in behaviour at social occasions, in acceptance of intellectual aggressiveness in male colleagues, in responses to men in terms of their ideas and to women in terms of their sex, and in patterns of friendships and social interaction. Some women try to join this culture and become 'honorary men'. This does not change the culture itself, and other women may find it just as alienating.

[Wendy Varney comments: "There are those women who get on in a man's world, just as men do, doing all the things that men do. Then there are those who do almost that but all within a feminist framework, usually a liberal feminist framework. What some of us find disturbing is that some of these women's writing is quite inaccessible and often only serves to make more apparent the gap between themselves and *other* women. They aren't necessarily worse than men, but for other women the phenomenon is more disappointing and soul-destroying."]

Male bonding is at variance with the rhetoric of competitive individualism found in academia. Men are more readily accepted, especially into the high reaches of academia, simply because they are men. This contradiction is built into the academic accommodation to patriarchy.

The masculine academic style. The intellectual and emotional atmosphere in academia has many masculine characteristics. It is competitive and aggressive. For many academics, conversations are a form of intellectual jousting. The aim is to show off one's own brilliance and to put down other people. Cooperative endeavour, aimed at overcoming inefficiencies and helping one another, is rare.

One aspect of the masculine academic style is a pervasive fear of showing one's lack of understanding. (This is also an aspect of the competitive and hierarchical nature of academia.) Students are afraid to ask questions and expose their ignorance. But many teachers too are reluctant to show that they don't know something. In lectures and tutorials, teachers will ensure that the topics discussed are areas where they know much more than the students. In seminars and conferences, academics will usually sit quietly - especially if they do not understand a thing about what's being said - rather than ask what might turn out to be a foolish question. In contrast, when they feel they are on secure ground, some academics attack ruthlessly.

Women often find it hard or uncomfortable to adopt the masculine

credentials, since this transfers some of the costs of training from individuals and the profession to the state. In addition, credentialling through higher education potentially offers a better public justification for restricted entry, since the prestige of the academic 'sorting system' is often greater than a profession's own system.

Academics also play an important role in strategies for increasing professional power by providing much of the knowledge base through which professions legitimate themselves.

The credential system

It is worth elaborating on the use of academic credentials as screening devices for entry into the professions, since the credential system also plays a major role in slotting people into occupations in corporations and state bureaucracies. I can do no better than summarise some of the points made and documented by Randall Collins in his important book *The credential society*.

- Little that is learned in formal education is relevant for employment. Most job skills, including managerial and professional skills, are learned on the job (including apprenticeships).
- Requirements for credentials to enter particular occupations serve less to guarantee skills than to raise professional status and select entrants with the correct social skills.
- Grades at all levels of formal education are not good predictors of occupational performance - except of subsequent *academic* achievement. Grades are linked to occupational success by their certification value, not by their representation of any particular skills.
- The main content of schooling is middle-class culture. Credentials provide a mechanism for legitimating selective entry to privileged occupations. In particular, credentials limit movement from manual to nonmanual occupations, while gender is used to limit mobility between clerical and managerial positions.
- Increased formal education has not increased social mobility, since parents are able to pass on 'cultural resources' - the social skills to obtain credentials - more readily than economic or political resources. In struggles to get ahead, membership in a cultural group is a key resource.
- The work of managers and professionals within large organisations essentially consists of political manoeuvring to form alliances and create suitable social perceptions. This work can be called 'political labour', and is part of the 'sinecure sector' of the economy. It is built on the surplus provided by productive labour in the traditional sectors of the economy.
- The United States, with its large size and wealth, relatively decentralised government and competing ethnic groups, has had a volatile and competitive cultural market. This has led to a large sinecure sector and enormous credential inflation. Higher education has expanded to accommodate this competition and inflation, drawing on demands for equal educational opportunity and on the

professional monopoly. One effective training method is apprenticeship, which was the method used by the medieval guilds, precursors of some modern professions. Professional training often includes initiations and rituals to bond recruits and create an aura of insider knowledge.

Restricting the labour supply. The power of a profession is increased if the number of practitioners is limited. This drives up salaries and prestige. Labour supply is most effectively restricted at the training stage, by limiting the intake of students. It can also be restricted by limiting the number of licensed professional positions. The labour supply cannot be limited too much, since this may stimulate the development of a challenge to the monopoly by rival occupations or disgruntled clients.

Knowledge base. Many professions stake their legitimacy on a particular body of knowledge which is claimed to provide a unique basis for their ministrations. Training in this knowledge is made necessary for entry into the profession. Once established, a knowledge base unifies the profession while ensuring that outsiders are not easily able to challenge professional activities. The knowledge base helps legitimate the activities of the profession.

Professional ethics. Professions try to increase their status by creating the impression that they have a high ethical standard. The myth of high ethical standards is maintained by insulating professionals from external examination. The establishment of professional societies and methods for 'self regulation' help in this. Official societies and codes of ethics act to dampen any public discussion of problems in the profession. Professional incompetence is dealt with internally and as quietly as possible.

Furthermore, being 'professional' is generally interpreted as not being overtly political. 'Controversial' work and statements stir up public debate and potentially open the profession to scrutiny. Hence professional societies and professional ethics provide formal and informal strictures on radicals and 'stirrers'.

Professional ethics often encourage professionals not to openly advertise their services. Advertising might stimulate competition and comparisons between practitioners and help undercut overall professional control.

Discrediting alternatives. Professions are seldom unchallenged in their monopolies. When there are alternative practitioners or methods, these are often attacked by professional elites. An example is the de facto black list of non standard cancer therapies compiled by the American Cancer Society. The standard methods of surgery, radiation therapy and chemotherapy require substantial injections of medical expertise and hence increase the public's dependence on the medical profession. Many of the denigrated alternatives use common substances such as vitamin C and hydrazine sulphate and hence are threatening to professional control.

Academia plays a key role in the strategies of many professions. Academic training and degrees are essential in fields such as medicine, law and engineering. Controls over entry to such courses provide a major avenue for restricting the labour supply. Professions often prefer to shift control over membership from their own courses and examinations to higher education cre-

style. If they seek cooperative intellectual striving and ask about the things they don't know, they will find little response from the men and will lower their status by 'exposing their ignorance'. But sitting quietly is not a way out, since intellectual point-scoring is expected. The trouble is that women are not expected to be vocal. A female student or academic who is as vocal and aggressive intellectually as her male colleagues will be perceived as unacceptably strident.

The same differences apply in the internal power plays which characterise local power hierarchies. Organising to build up the numbers to push through a policy or to knife some member of the department is behaviour identified as masculine. Women usually avoid it. As a result they are less likely to benefit from local power struggles.

Many men think more highly of their work when it is seen as 'masculine': something that women cannot do. Aggressive intellectual styles and politicking help maintain the 'masculinity' of academia. The masculine academic culture makes it virtually impossible for women to conform to the 'academic style' and also to the usual expectations of female behaviour.

Rape and sexual harassment. Men in academia are much more likely to be teachers, supervisors or superiors of women than vice versa. The combination of power in being a man and in being in a more powerful position in the academic system creates many opportunities for abuse. One of the frequent results is 'academic rape', in which men use their intellectual status and formal power to encourage or pressure women to enter into sexual relations. Some women do this because they are flattered by the attentions of a high-status academic, or in the hope of gaining preferential treatment or the fear of otherwise being disadvantaged. Thus do sexual inequality and hierarchical inequality reinforce each other.

Once any woman enters into a sexual relationship with a male academic in a powerful position, she is naturally accused of using her body to get ahead. Often women are assumed to be doing this even when they are not. In any case, her actual academic contributions are lost sight of.

'Academic rape' implies voluntary behaviour by women in a situation of structural inequality. Of course forcible rape in academia also occurs. Rape is the most extreme form of sexual harassment, which includes all sorts of offensive sexual behaviours ranging from stares, jokes, touching and fondling to various degrees of assault. This may come from other students, from supervisors, colleagues or members of the administration. Far from being a minor laughing matter, sexual harassment is an attack on the status and self-image of women. I have been told of a number of cases in which male bosses at first exploited the intellectual labour of female assistants and later made sexual propositions. Intellectual and physical submission are often related.

Rape and sexual harassment are quite important in maintaining male domination in academia. Many women who are harassed leave their studies or jobs. This is especially likely to occur at early stages in their careers, when they are vulnerable emotionally as well as in terms of future options.

Homosexual harassment is also a serious problem in academia. Male

homosexual harassment is more common if for no other reason than there are more male than female academic staff. But, referring to 'academic rape', a friend told me that "you wouldn't believe what goes on in women's studies!"

Masculine knowledge. Both the form and content of academic knowledge are influenced by patriarchy. The content of the humanities and social sciences usually leaves out or slights the contributions of female scholars and says precious little about issues relating to the role of women in society. That much is straightforward.

A more deep-seated influence of patriarchy on academic knowledge arises in the choice of problems for investigation, the uncritical acceptance of particular hypotheses, and the construction of theoretical frameworks. The usual assumption is that what men do is the norm and any differences must be explained. It is asked, "why do so few women do science?" but not "why are men so aggressive and competitive?"

There is quite a lot of research into the measurement and explanation of differences in 'spatial ability' between men and women. Men on average do better on certain tests of spatial ability, and great attention is focused on genetic explanations. The obvious reason for this attention is that if a biological basis for sex differences in mental abilities can be established, it can be used to justify inequality between the sexes. The same applies to genetic differences between ethnic groups, hence the extraordinary attention to genetic explanations. The rapid spread of sociobiology owes a lot to the way its genetic explanations can be used to justify social inequality.

Not only is much of the research in these areas deficient scientifically, but the drawing of political conclusions is quite dubious. It is implied that if boys are better than girls in some tests of spatial ability, then discrimination against girls in courses in mathematics and engineering need not be of major concern. But other types of 'scientific facts' are not used to draw contrary conclusions. For example, the superior performance of females on tests of verbal ability is not used to question the low numbers of female staff heading English or journalism departments.

It is known that males die at a higher rate than females at every age; males also suffer higher rates of disease and disability. One social conclusion that might be drawn from this is that women should be given preference over equally qualified men in job appointments, since the men are more likely to become sick or die. Needless to say, such a conclusion is never suggested by male academics. Patriarchy shapes knowledge by suggesting certain types of studies because, in the present climate of opinion, they can be used to justify social conclusions. But most of these social conclusions would not stand up for a moment except for male-orientated thinking and attitudes in the wider society.

Sigmund Freud in 1896 announced his 'seduction theory'. He argued that many of the psychological problems experienced by his patients resulted from actual physical traumas in childhood, namely rape and other sexual abuse of young girls by their fathers and other men in the family. There was abundant evidence at the time for the reality of such assaults. Freud's theory was met

becoming a teacher in higher education, not proven competence and effectiveness as tested by an autonomous agency.

Powerful professions hold a tight monopoly over the services they provide. Their clients have no options. In many cases it is illegal for non-professionals to practise, for example to administer drugs. And it may be illegal for 'clients' not to acquiesce in the services of professionals, most notably in compulsory schooling.

The monopoly over services by professionals is often accompanied by a doctrine of free choice. For example, a sick person can choose a doctor (but not a non-doctor, at least if medical insurance is to apply). Undergraduate students ostensibly have a free choice in obtaining their education. But degree requirements militate against 'shopping around' to obtain good teachers. In practice most teachers have a captive audience.

Strategies by professions

How do groups of people in an occupation go about establishing or increasing their control over their work conditions? There are a number of strategies for doing this, and they are not mutually exclusive. Each one must be seen in the context of the power of other groups in society.

Establishing a monopoly. The key to becoming a 'profession' in the first place is establishing a monopoly. All practitioners must be members of the profession. This means that practitioners must be brought into the profession, or alternatively that non-members must be restrained from practising. This is called closure. Outsiders cannot be allowed to enter the field on a casual basis. An example is the takeover of control over childbirth by medical practitioners and the subordination of the role and status of midwives.

State licensing. The occupations traditionally seen as professions - law, medicine, the ministry - established their monopoly through a relatively drawn-out process. Today, the state, with its power to license activities, provides an easy way for an occupational group to monopolise an area of activity. There are many things which people have traditionally done for themselves - if they wanted to - which suddenly become illegal for those who are not registered. This can range from selling food to driving vehicles to laying tiles. The key to state licensing is not any intrinsic requirement for restriction to specialists, but rather the political clout of the group seeking licensing. The areas which are so licensed vary greatly from country to country and, in federal systems, from province to province. Establishing a legal monopoly is vital to most contemporary professions.

Monopolising resources. Professions organise themselves so that non-professionals have no right of access to goods and services which they might otherwise be able to use themselves. Often this monopoly is enshrined in the law, such as in the use of x-ray machines. In other cases exclusion is maintained by standard policy, such as the restriction of borrowing rights at academic libraries or of the use of scientific research equipment.

Training. If all new entrants into a profession are given training which ensures conformity to the standard way of doing things, this promotes

PROFESSIONS

CHAPTER 10

The conditions of many workers are largely controlled by people outside the occupation. For example, management controls the basic framework in which factory workers carry out their jobs. By contrast, in what are called professions, such as medicine and law, the professionals collectively and individually make many more of the important decisions about what work they do and how. This control over the work serves to increase wages and status. A profession thus can be understood as a way of controlling an occupation.

This view of professions is different from a traditional one which sees professions developing because of the innate characteristics of a type of work, such as the nature of disease or of learning. The trouble with this view is that it ignores the dynamics of power in which professions develop and perpetuate themselves.

Professions must be understood in relation to other groups in society and power struggles between them. Different groups have different resources. Capitalists have control over the means of production. State elites control the means of legitimate violence. Professions are founded on control over skills and knowledge. They use this control to extract resources from society. In other words, professions are engaged in an exercise of translating skills and knowledge into economic rewards and political power.

Professionals are different from knowledgeable but unlicensed people. A knowledgeable person relies on persuasion based on evidence and arguments to convince others. Professionals by contrast do not need to convince others (though it can be useful at times). Rather they rest on their collective authority based on occupational control. If professions have a high status and exclusive control over services, clients *assume* that the professionals are competent.

What is it that professions control? Basically, there are certain things which ordinary people might learn how to do themselves but which professionals claim the exclusive right to do. For example, in most courts only certified members of the legal profession are entitled to represent a person. This right of representation does not depend on tested superiority in knowledge or argument (though that may apply sometimes) but on membership in the profession.

One of the key services provided by academics is teaching. This is offered not on the basis of being a better service than might be given by anyone else, but by control over the offering of credentials to students which is vested in academic institutions. Most academics have no formal training in teaching, and many are mediocre teachers or worse. Undoubtedly there are many non-academics who could teach students much more effectively. But the organisation of the academic profession ensures that it is appointment as an academic - which is largely controlled by other academics - that is the basis for

with hostility from the psychological fraternity; he was left quite isolated. This was one reason why Freud renounced the seduction theory within a few years. He came to believe that most of the women were lying about their childhood experiences, and that their problems were psychological in origin. Freud, in common with thinking at the time, put the blame on the women for their problems and exonerated the men who had assaulted them.

Thus, from the beginning, psychoanalysis was founded on suppression of a basic truth about male domination. This situation remained until the early 1980s, when Jeffrey Masson researched the Freud archives and discovered evidence demonstrating Freud's original suppression of his seduction theory. The suppression had been maintained ever since. For example, Sandor Ferenczi, a student and friend of Freud, came to accept the seduction theory in the 1930s. Freud and others in the psychoanalytic community conspired to prevent publication of Ferenczi's paper outside of Germany. Masson himself was dismissed from his position in the Freud archives after he publicised his discoveries. When his book about the issue was published, it met with extremely hostile reviews. Awareness of rape and abuse of girls by males in the family clearly is threatening to male domination. The long suppression of the seduction theory shows the strong influence of patriarchy on knowledge.

The form of academic knowledge also seems to owe quite a bit to patriarchy, though this is difficult to demonstrate. The academic emphasis on 'objectivity' - including the separation of the observer and the observed, emotional neutrality and the separation of intellect and emotion and of facts and values - seem to reflect characteristics normally assigned to men. Research papers for example are usually written in a standard way which hides all indications of the actual practice of research, with its personal motivations, puzzles, mistakes side tracks and flashes of illumination. The emotions and even the existence of the researcher are normally excluded from discussion or awareness, as in the use by many academics of 'the author' or 'we' to refer to themselves even when writing as a single author.

The presentation of academic knowledge as 'objective' serves several purposes. It presents to the outside world - including academics outside the speciality - the impression that the knowledge is not tainted by individual values or failures. 'Objective' knowledge is harder to challenge and question than ideas and data developed by ordinary failure-prone people. Claims of 'objectivity' serve to increase the status of academics in relation to outside groups. Patriarchy may not be the main driving force behind this orientation, but it certainly is quite congenial with it.

Challenges to patriarchy

To oppose the devices by which women are excluded and subordinated in academia, women have quite a few potent resources. The stated rhetoric that scholarly performance is the basis for academic advancement is a useful tool against overt discrimination. If discrimination is too blatant - and especially if it is publicised - it can bring the hierarchy into disrepute. At least some male academics provide support for talented women in their struggles against

the masculine academic system.

Academic study itself also provides a basis for women to challenge their oppression. Some women learn how to question and to do research. This ability can be turned to questioning masculine bias in knowledge. Quite a number of feminists have used academic resources in developing their challenges to patriarchy.

While academia itself provides some resources for women to use against male exclusionary strategies, the most important support for academic women is the feminist movement. The second wave of the feminist movement since the 1960s has spread awareness of oppression in the form of the gender division of labour, lack of child care, rape and sexual harassment, and socialisation into gender roles. Furthermore, the movement has mounted challenges to these obstacles to equality, and has celebrated the characteristics normally attributed to women. The result has been a number of external challenges to male domination in academia, and support for individual women inside academia. Even just the diagnosis of the problem can be enough to strengthen women under pressure who otherwise would have blamed themselves for difficulties encountered.

The feminist movement has increased the prospects of solidarity between women inside and outside academia. Quite a few female academics who become aware of the personal or gender discrimination which they have faced are, as a result, willing to support other women in their struggles against bias. Although some female academics side with the male establishment, a greater fraction of tenured women than men are active on social issues. The result is that the feminist challenge to patriarchy is providing some basis for a challenge to academia itself. Currently it is the most potent challenge, much more so than either the socialist movement or the student movement. Whether it will be able to change academia in any fundamental way remains to be seen.

Alternatives to patriarchal academia

What would non-patriarchal higher education be like? What changes are needed to get there? There is a wide range of ideas on this.

Women elites. One view is that women should occupy a 'fair share' of positions in academia, including elite positions. In this vision academia would be sexually integrated, but otherwise unchanged in its hierarchy, its disciplinary divisions, its relation to the state and so forth.

The promotion of women into elite positions is welcomed by most elite female academics themselves. It is also the preferred course for some reformist male administrators, since the basic structures are unchanged (so long as the promotion of women is not so rapid as to threaten their own power base). Furthermore, programmes of equal opportunity and affirmative action initiated by governments can provide an opportunity for academic administrations to increase their power in relation to the academic staff.

But even this most reformist challenge to patriarchy in academia is very threatening to many male academics, who continue to use the narrow-track career, the masculine academic culture and other means to prevent the

Roger Dale, Geoff Esland and Madeleine MacDonald (eds), *Schooling and capitalism: a sociological reader* (London: Routledge and Kegan Paul, 1976). Mostly Marxian categories used to analyse education.

Michael B. Katz, *Class, bureaucracy, and schools: the illusion of educational change in America* (New York: Praeger, 1971). Traces the development of educational bureaucracies and their relation to class structure.

Joel H. Spring, *Education and the rise of the corporate state* (Boston: Beacon Press, 1972). An analysis of the history of schools in the United States, seeing them as an instrument of social control.

Michael Young and Geoff Whitty (eds), *Society, state and schooling: readings on the possibilities for radical education* (Ringmer: Falmer Press, 1977).

On the influence of capitalism on research see the journal *Science for the People* and Hilary Rose and Steven Rose (eds), *The radicalisation of science* and *The political economy of science* (London: Macmillan, 1976).

On the Ollman case see Bertell Ollman, *Class struggle is the name of the game: true confessions of a Marxist businessman* (New York: Morrow, 1983).

- versities, corporations and academic work (Toronto: Garamond Press, 1988). A call to debate and challenge the increasing orientation of Canadian universities to business.
- James Ridgeway, *The closed corporation: American universities in crisis* (New York: Random House, 1968). An exposé of political and economic 'abuses' by academic staff and administrations in the service of government and business.
- Upton Sinclair, *The goose-step: a study of American education* (Pasadena, CA: The author, 1923). A hard-hitting, fascinating study of US universities, attacking them for service to the rich and powerful.
- David N. Smith, *Who rules the universities? An essay in class analysis* (New York: Monthly Review Press, 1974). An argument that business elites control university governing bodies, which have ultimate control over higher education.
- Lawrence C. Soley, *Leasing the ivory tower: the corporate takeover of academia* (Boston: South End Press, 1995). US corporate funding of US universities and its effect on research directions and scholarly independence.
- Michael Useem, 'Business segments and corporate relations with U.S. universities', *Social Problems*, vol. 29, no. 2, December 1981, pp. 129-141. How the dominant stratum of business forms relationships with elite universities.
- Thorstein Veblen, *The higher learning in America: a memorandum on the conduct of universities by business* (New York: B. W. Huebsch, 1918). The classic critique of capitalism influence on higher education via university governing bodies.
- There are numerous studies treating the relation between capitalism and schooling, including the following:
- Michael W. Apple, *Education and Power* (Boston: Routledge and Kegan Paul, 1982). How contestation affects the process of social and economic reproduction.
- Michael W. Apple (editor), *Cultural and economic reproduction in education: essays on class, ideology and the state* (London: Routledge and Kegan Paul, 1982). Marxian categories used to analyse education.
- Samuel Bowles and Herbert Gintis, *Schooling in capitalist America: educational reform and the contradictions of economic life* (New York: Basic Books, 1976). How schooling reproduces the class structure and serves capitalism.
- Martin Carnoy, *Education as cultural imperialism* (New York: Longman, 1974). Western education is seen as an oppressive part of the capitalist system which has been imposed on the Third World.
- Roger Dale, Geoff Esland, Ross Fergusson and Madeleine MacDonald (eds), *Education and the state. Volume I: Schooling and the national interest. Volume II: Politics, patriarchy and practice* (Lewes, Sussex: Falmer Press, 1981). Mostly Marxian categories used to analyse education.

advancement of women. Vocal members of this opposition argue that 'merit' should be the deciding factor rather than sex, ignoring the masculine bias in the concept and assessment of merit.

Changes in career and support structures. Rather than simply promoting women up the system, this alternative aims to undercut biases that reduce women's prospects in the academic competition. It involves changes such as ample provision of child care, easy access to permanent part-time work, elimination of preferences for narrow-track academics, breaking down gender categorisation of careers, administrative measures against sexual harassment, and equal sharing of domestic labour between men and women.

These changes are far-reaching in their implications. The difficulty is bringing them about. The changes basically aim to overturn the measures by which male academics perpetuate their privileges while maintaining the formal front of fairness in academic competition.

Even imagining that such changes could be introduced, they would not eliminate all difficulties for females entering academia, many of which stem from early socialisation and from sexism in schools and peer groups.

More fundamentally, changes in career and support structures do not in themselves challenge academic hierarchy and ties to powerful outside groups. As long as patriarchy holds sway in the wider society, academic men will be able to use connections with outside male elites to bolster their own positions. It can also be argued that as long as hierarchy persists inside academia, those who are socialised into or attracted to patterns of domination and submission - which today usually means men - will use the hierarchy to promote their own interests.

Feminised subject matter. The challenge here is to the patriarchal biases in academic knowledge. Currently the usual concession to feminist critique in academia is establishment of women's studies programmes, which are often short changed in terms of staff and resources. The 'malestream' disciplines remain largely unaffected by feminist analysis.

Changes in academic curricula and research are hard to bring about. To 'feminise' the disciplines would require a major struggle by feminist scholars and students. Since the power base of many male academics is built around knowledge that is masculine in content and form, the knowledge will not be changed without resistance. Certainly it is hard to imagine feminising of academic knowledge without simultaneous feminising of the institutional structures inside and outside academia.

Academic separatism. Another approach is the establishment of separate but equal facilities for women to study and do research. In a small and partial way this is what women's studies programmes already do. But it is possible to imagine much grander alternatives, such as entire women's universities structured around feminist control and scholarly approaches.

There is much to be said for places where women can pursue studies and research without continual battles against male domination. The limitation of this alternative is that, if unconnected with other struggles, it forfeits the opportunity to convert men and non-feminist women to the feminist cause.

Women's studies programmes provide enclaves for feminist scholarship, but they are also vulnerable to cutbacks if they do not build up support in the traditional disciplines and in the administration. Likewise, women's institutions may end up being separate but unequal. Separatism is valuable to the extent that it helps build confidence and skills not provided in mixed groups, but it can be counterproductive if it allows men to divert the feminist challenge into feminist enclaves.

Egalitarianism. The most radical feminist challenge to academia involves questioning of the academic hierarchy and of the whole separation between academic activities and the rest of life. The first part of this challenge is to the academic hierarchy. Rather than promoting ways for women to climb the career ladder, the approach would be to dissolve the ladder itself and provide opportunities for anyone to engage in learning or research who wanted to. Dissolving the hierarchy would undercut one of the key bases for male domination: the use by men of power based on position.

The second part of this challenge is to the separation between learning and research and 'the rest of life'. Rather than teaching and research being a professional full-time career, it would be something done part time in terms of hours per week or in terms of years in life. In particular, child-rearing would be integrated into academic pursuits. Under such a system, a narrow-track career would provide no advantage.

The egalitarian alternative is the most far-reaching challenge to both patriarchy and to academia, but what does it mean in practice? It might mean building egalitarian frameworks from scratch, or it might mean reforming the present frameworks. The reforms would have to challenge both patriarchal policies *and* the patriarchal and hierarchical structures which make them possible. For example, rather than just promoting more women into elite positions, efforts would be made to democratise the decision-making system in academia. Instead of just providing child care, efforts would be made to integrate child care and children's education into activities on campus. Rather than child care being the responsibility of either mothers or specialist child care workers, it would be made easy and attractive for most academics to help out in numerous local campus centres or 'on the job' in seminars, tutorials and committee meetings.

References

- Joan Abramson, *The invisible woman: discrimination in the academic profession* (San Francisco: Jossey-Bass, 1975). An amazing case study of discrimination.
- Margo Culley and Catherine Portuges (eds.), *Gendered subjects: the dynamics of feminist teaching* (Boston: Routledge and Kegan Paul, 1985). Sharp essays on dealing with gender, race and class in the classroom.
- Billie Wright Dziech and Linda Weiner, *The lecherous professor: sexual harassment on campus* (Boston: Beacon Press, 1984). A sensible and sensitive treatment.
- Martha R. Fowlkes, *Behind every successful man: wives of medicine and aca-*

of anti-capitalist challenges. In Ollman's case, he and his supporters were able to utilise academic merit and the principles of due process and academic freedom in their struggle against the blocking of the appointment. Perhaps only in the United States, where the legal system contains its own particular set of biases, would it have been so easy for a judge to rule against Ollman.

Alternatives to capitalist influence

How can academics and academic institutions nullify or resist capitalist influence - assuming that they want to?

Academic neutrality. Academics in this stand commit themselves to intellectual values, and claim value-neutrality in regard to political and economic issues. Neutrality clearly provides a possible basis for limiting capitalist influence on higher education.

In practice, many values do penetrate even those academic disciplines which are ostensibly neutral. Because of the pervasiveness of capitalist social relations in the wider society, many academic disciplines become oriented to capitalist interests. The claim to neutrality then becomes a smokescreen for the capitalist influence.

Closely related to academic neutrality is the stance of pluralism: several different viewpoints are studied or examined. The difficulty with neutrality via pluralism is that the reservoir of viewpoints is strongly influenced by prevailing social arrangements. 'Utopias' such as workers' control are seldom included in an equal fashion. Likewise, accepting research funds from a plurality of sources sounds fine in theory, but in practice means an acquiescence to the interests of those with the most money.

Commitment to anti-capitalist struggle. This stand more effectively negates capitalist influence, at least at the intellectual level. It can run into difficulties because of the shortage of research funds or the antagonism of students. But more importantly, explicit rejection of a higher commitment to purely intellectual goals weakens the position of an anti-capitalist academic. The academic's scholarship is then seen as tainted and inferior, and this creates numerous problems in obtaining appointments, undertaking research and establishing courses.

At the institutional level, an anti-capitalist stand is not viable except for small private operations, such as ones linked to trade unions.

State socialism. State socialism requires the abolition of all substantial capitalist social relations. Hence the influence of capitalism on higher education is largely removed, except through connections with the international academic community.

References

- David Dickson, *The new politics of science* (New York: Pantheon, 1984), chapter 2. The increasing linkages between US universities and industry in the 1980s, turning knowledge into a commodity.
- Janice Newson and Howard Buchbinder, *The university means business: uni-*

work is widely cited and highly respected.

The selection committee at the University of Maryland recommended Ollman unanimously over the other candidates for the headship. At the level of evaluation of scholarship, anti-Marxism did not seem to play much of a role. The opposition to the appointment came from outside of scholarly channels. It was spearheaded by legislators, conservative newspaper columnists and members of the university's governing body, and pursued by influential graduates of the university. The main tactic used - aside from expressing public outrage - was to apply pressure on the university's president, the chief executive officer. He received some 340 letters of protest about the appointment.

Many of the letters of protest were from businessmen, including some presidents of corporations. Nevertheless, the key opponents of Ollman's appointment were influential politicians and professionals who supported capitalism and who saw it as their duty to prevent a capable critic of capitalism obtaining a key position in the academic hierarchy. Ollman's appointment would not have been a threat to the economic basis of capitalism, but rather to its cultural support system. The most effective attacks on the appointment came from figures from within that cultural support system.

It is important to note that the attack was not mounted on academic grounds. To do so, it would have been necessary to convince or pressure the members of the academic appointments committee. Rather than the attack being mounted through intellectual channels within the academic discipline, it utilised the alternative power system of the academic hierarchy.

This example illustrates how in many cases the power of capitalists to directly intervene in higher education to promote their ends is limited. Indeed, if, for example, the opposition to Ollman had been publicly tied to a particular corporation, this might well have been counterproductive for the attack. Corporate intervention would have been seen as a blatant violation of academic freedom. It was vitally important that the blocking of the appointment be seen as an *academic* decision. Hence the pressure on the president of the university, the person on the inside most likely to be responsive to outside pressures.

The influence of capitalism on higher education is sometimes direct, but the more important influence is through wider social hegemony. The Ollman case is unusual precisely because an explicitly political attack was mounted to oppose a Marxist. In the normal course of events, such an appointment would seldom be considered, since appointment committees are aware of the possible ramifications of controversial appointments.

There is also a considerable chance factor involved. If Ollman's appointment had gone through before potential opponents had realised there was something to oppose, he might now be presiding over the department with no one thinking much about it. Leakages of information, personal antagonisms and organisational quirks have a lot to do with whether a Marxist academic is supported, tolerated or suppressed.

Capitalist hegemony is far from complete. There are many challenges to capitalist interests, and most of the important intellectual challenges come from academics. Academia provides a number of supports for the development

demia (New York: Columbia University Press, 1980). Makes the point that professional careers depend on support from wives.

Florence Howe (ed.), *Women and the power to change* (New York: McGraw-Hill, 1975). Valuable essays on women and academia. See especially Adrienne Rich, 'Toward a woman-centred university', and Arlie Russell Hochschild, 'Inside the clockwork of male careers'.

Rosabeth Moss Kanter, *Men and women of the corporation* (New York: Basic Books, 1977). A structural model of individual responses to organisations, emphasising opportunity, power and relative numbers.

Jeffrey Moussaieff Masson, *Freud: the assault on truth. Freud's suppression of the seduction theory* (London: Faber and Faber, 1984).

Hanna Papanek, 'Men, women, and work: reflections on the two-person career', *American journal of sociology*, vol. 78, no. 4, January 1973, pp. 852-872.

Betty Richardson, *Sexism in higher education* (New York: Seabury, 1974).

Helen Roberts (ed.), *Doing feminist research* (London: Routledge and Kegan Paul, 1981). The essays by David Morgan and Dale Spender in particular deal with male domination and academia.

Dale Spender (ed.), *Men's studies modified: the impact of feminism on the academic disciplines* (Oxford: Pergamon, 1981).

Liz Stanley and Sue Wise, *Breaking out: feminist consciousness and feminist research* (London: Routledge and Kegan Paul, 1983). An argument that academic research must incorporate feminist principles in a fundamental way.

Athena Theodore, *The campus troublemakers: academic women in protest* (San Antonio: Cap and Gown Press, 1986). A superb treatment of discrimination against US female academics.

Jane Thompson, *Learning liberation: women's response to men's education* (London: Croom Helm, 1983). On women's oppression, adult education, and linking struggles in education and feminism.

THE SUBJUGATION OF STUDENTS

CHAPTER 6

The domination over students by academic staff is a key power system within academia. The staff individually and collectively exercise almost complete control over the choice of material that is taught, the methods of teaching, the process of assessment and the awarding of credentials. Student participation in these areas is usually nominal at most. The staff-student relationship is very far from being one of partnership in learning.

One driving force behind staff domination is the interests of staff in maintaining their own power. On a collective level, the privileges of academics depend on restricting entry to the profession and in tying knowledge to their own interests and the interests of patron groups. As well, in order to reproduce the academic profession, students must be inducted into the established knowledge frameworks and socialised into proper behaviour. Nonconformists must be weeded out.

Many individual academics gain a sense of self-importance through their power over students. This is not essential to staff dominance, but rather is a by-product of it.

The staff who have the greatest structural control over students are those in elite academic positions where they have greater power to determine admissions to courses, specify the syllabus, ratify course offerings, appoint staff and so forth. The expansion of higher education has given more power to administrators, who run the system according to bureaucratic principles. The academic elites have greatest power over both students and junior academic staff. The junior staff, realising that their influence within the administration is minimal, may relish what power they do have, namely over students.

The other main driving force behind staff domination is the interest of various non-academic groups. The professions in particular are concerned to restrict entry into their privileged occupations and to ensure that new entrants accept the current power structure within the occupation. Corporate and state elites prefer that academic knowledge is selectively useful to them, and this means that it cannot be too readily accessible to beginning students.

Staff domination in part is a continuation of domination over students which prevails at the primary and secondary levels, a domination that is intrinsic to state and adult control over the learning of children. Many sections of higher education operate on the assumption that students are children.

The major hitch in the pattern of staff domination is that academics are supposed to be teaching the students the secrets of academic knowledge. Some students are future members of the academic club, and others are destined for top jobs in other occupations. There is a contradiction between academics tying knowledge to their own interests - through elaborate knowledge frameworks, jargon and esoteric research - and imparting that same knowledge

that the outgoing president of the university failed to confirm Ollman's appointment, and the incoming president rejected it. This decision was confirmed in a later court challenge. The Ollman case illustrates many of the strengths and weaknesses of capitalist influence on academia.

The United States is the heartland of relatively unbridled capitalist influence. It is the only major capitalist society never to have a significant communist or social democratic political party. The trade unions are weak and largely pawns of the corporations. Capitalist influence in the state is extensive, and beliefs in individualism and 'free enterprise' are widespread and deep-seated. Repeatedly in its history, anti-capitalist social movements have suffered severe repression, most notably in this century after the two world wars.

The power of capital in the United States has had a big impact on academia. Thorstein Veblen's 1918 study of the role of businessmen on university governing bodies is still relevant today, and indeed only in the United States does the analysis of direct capitalist control over higher education begin to make sense. In the 1940s and 1950s the right-wing purge of cultural institutions, part of a much wider process, severely reduced the profile of radicals in universities. For many years Paul Baran was the only visible Marxist economist in a US university, and he was severely harassed.

As a result of the conservative social climate, academic disciplines in the US tend to be much more supportive of the capitalist system than in other countries. The power of the functionalist paradigm in the social sciences and the marginalisation of the radical critique of science are two examples.

The rise or resurgence of social movements in the 1950s and 1960s - the black movement, the antiwar movement, the women's movement, the environmental movement - provided a major challenge to established social structures. Most directly relevant to higher education was the student movement. These various challenges to the existence and uses of elite power led to a considerable freeing up of the intellectual scene. Within the universities, a small but significant number of Marxists gained positions and were able to undertake research and teaching in areas relevant to their interests. (Many others have been blocked from appointments and promotions, or been sacked. The attack on leftists never really stopped after the 1950s; only the intensity changed.)

It is significant that some Marxists have been able to obtain positions in higher education, including a few prominent positions. An explicitly Marxist journalist at a major US newspaper is hard to imagine. Marxists in government would have to keep a low profile, while in managerial positions in corporations the prospects for survival are minuscule.

Academia is built on empires of knowledge, and thus provides a stronger niche for Marxists because Marxism has a well-developed intellectual framework. Marxists can demonstrate their academic prowess, and indeed many of their journals are more intellectually high-powered and esoteric than their liberal competitors. In part, Marxist intellectualism is a survival response, affirming a strong commitment to academic culture. It often has the disadvantage of becoming separated from political practice.

Ollman is a good example of the new breed of Marxist academics. His

are more likely to study commerce, while those critical of business are more likely to study sociology. Furthermore, many students just attend classes, obtain their degrees and continue on, relatively unaffected in their fundamental attitudes and aspirations. There are after all many other competing influences, from families to the mass media.

Academic freedom. The right claimed by academics to pursue intellectual investigations without fear of offending vested interests is essentially a claim for professional autonomy. In practice, 'academic freedom' is class-biased. A pro-capitalist stance is seen as unexceptional, whereas a pro-communist stance is seen as a marginal case for protection by academic freedom. Untold numbers of scholars have been blocked from appointments and promotions because of their left-wing views, and at times wholesale sackings occur. This is the case in capitalist societies. Under state socialism, explicit pro-capitalism is a severe impediment to an academic or any other career. The point here is that capitalism, where it is dominant, shapes the prevailing understanding of academic freedom.

Commodification of academic value. A very important belief system associated with capitalism is individualism - the belief that individuals are responsible for their own success or failure - and the associated ideas of competition and natural hierarchy. All of this sits in a society of commodities: people produce and consume goods and services, including themselves.

Does the rise of the commodity form under capitalism influence academia? One could argue that the increased emphasis on careerism by academics, using the currency of degrees and publications, reflects the influence of the commodity form generally, as well as the increased role of direct government funding of individual academics. Rather than adopting an intellectual commitment to the legendary community of scholars, most academics think and act in terms of an individual career.

Likewise, the trend towards providing a smorgasbord of bite-size courses for students, plus a proliferation of degrees, diplomas and certificates, can be seen as a symptom of the commodification of credential knowledge. Rather than the course of study being narrowly specified by the academic guild, course offerings more and more resemble a supermarket.

It seems plausible to attribute these developments in part to the influence of capitalism. Precisely how the influence operates, if in fact it does, remains to be clarified. In any case, the influence of capitalism on the organisation of higher education is not all that distinctive, considering that tertiary education under state socialism is structured very similarly.

The Ollman case

Bertell Ollman, a prominent Marxist scholar, was offered the chairmanship of the Department of Government and Politics at the University of Maryland in 1978. When news of the impending appointment became known outside the university, vocal protest was made by numerous Maryland state legislators. Public opposition also came from several newspaper columnists and from some members of the university's governing body. The result was

to students, most of whom will not become academics.

The resolution of this contradiction is to offer beginning students a textbook version of the discipline. The contradiction is not as serious as it sounds, since the recondite knowledge frameworks provide their own protection against easy understanding. Induction into the realities of the discipline, and relaxation of the control over curriculum, is reserved for later years, particularly advanced work.

Ideas in most academic disciplines are organised mainly to be useful to researchers, namely to the academics themselves. The researcher-oriented organisation of ideas may not be the most valuable for teaching. For example, physics may be taught as a deductive science, built on abstract principles which are presented to students as sacred texts formulated by the 'greats' in the field. The approach is logically elegant but sacrifices practical and intuitive understanding for most students.

The divergence between the aims of helping students understand an area of knowledge and tying that knowledge to particular interests is a serious one. It opens many possibilities for academics to give more control to students, to break down professional mystiques and to tie knowledge to weaker groups. Some critical perspectives developed by intellectuals, such as the views of Foucault and Habermas, only gain widespread currency by their translation into more understandable terms for students.

The possibilities for challenging staff domination over students are only of real significance if not all students are committed to promoting their own careers within the prevailing channels. If students simply want credentials in order to enter occupational clubs, then even the most radical challenges to conventional knowledge within the curriculum will come to naught.

There are two basic student levels: undergraduates and postgraduates (also called graduates). There are usually many more undergraduates, who are processed through courses more anonymously, especially in the lower years. Their large numbers can provide some protection for radicals and nonconformists. Higher degree students are treated more as apprentices. They get more personal attention but are also more vulnerable individually and may face more difficulties if they decide to challenge their teachers. The relative conditions of undergraduates and postgraduates varies a lot from country to country and from institution to institution.

Here I consider the main channels through which staff domination is maintained.

Credentials

The awarding of credentials is a key to staff power. It provides the justification for control of curriculum and teaching methods and for the imposition of staff-controlled assessment. But credentials provide more than justification for staff control: they are basic to the control itself. Since credentials are virtually essential to career advancement in many occupations, the awarding or withdrawing of credentials is a powerful weapon against student challenges to staff power.

Academic staff and administrations control the detailed requirements for obtaining credentials: the number of years of study, the allowed sequences of courses and the required marks, as well as the performances required by teachers and departments in individual courses. Students who do not adapt to these requirements have little chance of obtaining the degree, no matter how much they know or how well they perform. Likewise, students in particular courses who choose to study what they want rather than what the teacher demands are simply failed unless they can satisfy the teacher's requirements as well.

Credentials are incredibly effective tools for staff to control student learning. Course requirements are set up, curricula are drawn up and assessment methods are chosen. Academics claim exclusive rights over knowledge in their areas of expertise. The existence of credentials allows these claims to be translated into day-to-day control over student learning.

Academic control over learning is far from arbitrary. Numerous pressures on the content of curricula exist. As described in chapters 8, 9 and 10, elites in the state, corporations and professions have an interest in the orientation of academic knowledge and in the numbers and types of graduates produced. Pressures also exist from administrators and other educational institutions to maintain broadly similar syllabus content, teaching styles and types of assessment. Peer pressure to conform to standard procedures is important. Student demands have some impact as well, especially in challenging egregious deviations from expected practices. It is within all these constraints and pressures - and indeed because of them - that staff domination over students is well entrenched.

Competition

From the point of view of students, the academic system is very competitive. The rewards are marks, grades and degrees. The process is one of satisfying the specified requirements and, if possible, doing better than other students.

The competition results from restricted access to a scarce resource: credentials. Students compete against each other because they each seek high marks as a means to the highest level of credentials. Staff run the competition, since they control the awarding of marks and credentials.

Student competition has similar effects to staff competition. The orientation is to external rewards. Learning is something done because there is a test covering material that must be learned. Anything outside the curriculum - anything not relevant to getting through the course - is an annoying diversion to many students.

An often-stated official goal of higher education is the promotion of understanding and scholarship. Marks and degrees are supposed to be measures and symbols of learning and performance, not the goals themselves. In practice, the pursuit of symbols has displaced the pursuit of the reality, namely learning. But this is a diagnosis in terms of the official rhetoric. The reality is that credentials are important almost irrespective of what learning accompanies

couraged to adopt a certain set of attitudes to knowledge, work and life. In other words, they are socialised into a particular way of viewing the world. For example, it is seldom explicitly taught that the best way to get ahead is to express opinions which are congenial to the boss. Most academics would say they try to encourage critical thinking. But conformism-for-success may be the message gained from teachers who are more responsive to students who support the teacher's views, or who provide a limited, stimulating but respectful challenge. This is an example of the so-called 'hidden curriculum', which sometimes is not so hidden.

There is a large body of literature that argues that schooling helps to recreate the class structure of capitalist society. This happens when working class pupils are encouraged to adopt attitudes and to acquire knowledge which prepares them psychologically and intellectually for working class jobs, while the children of the middle and upper classes are primed for professional and managerial jobs. There is no doubt that this is what happens to a considerable extent. But it is too much to claim that there is a detailed correspondence between the class structure of society and the socialisation role of schools. There are important areas of breakdown in the 'ideal' functioning of the system from the point of view of capitalism, including the reinforcement of working class cultures of organised resistance to authority, the encouragement of attitudes towards knowledge which give it value for purposes other than work, and involvement in social action by teachers and pupils.

At the tertiary level, these conflicting tendencies are exaggerated. The most important way that higher education helps to reproduce the class structure is via the very existence of formal training to produce an educated elite. Those obtaining academic certificates thereby increase their earning capacity, and to the extent that they accept these benefits - by joining the workforce in more privileged positions - they have thereby helped to reproduce the class structure.

But there are conflicting interests involved which make 'socialisation' problematic. Many academics are not enthusiasts of the power of corporations. Their orientation is just as likely to be towards the state and the rational administration of the capitalist system. But more importantly, higher education involves some deeper induction into cultures of knowledge, which sometimes includes critical examination of knowledge claims. This leads some students to question established beliefs about the social system. Furthermore, the students who perform best in their studies are successful in academia - not in business. Their talent lies in their ability to use knowledge, not capital.

Admittedly, corporations depend to an ever-increasing degree on the application of knowledge for producing products, manufacturing demand, managing the workforce and negotiating the political system. Nevertheless, the hidden curriculum of academia, with its implicit valuation of the power of knowledge, contains a fundamental challenge to power based on control over capital.

In any case, the power of socialisation has been overrated. To a considerable extent, students self-select themselves for courses of study which are congenial with their prior belief systems. Those thinking of a career in business

tinuing hostility of many elites in the United States to government regulation of the economic system. Another contending influence on the nature of academic paradigms is the self-interest of the academics themselves. If they develop sets of ideas which are completely in the thrall of capitalists, this does little for their position in academia. To build up a disciplinary power base, academics need a system of knowledge which they can control. This leads to an academic preference for intellectually difficult or esoteric knowledge systems, which can be used to defend against interlopers from other disciplines and also against popular understanding and exposure.

The mathematical foundation of neo-classical economics does this admirably, and econometrics carries the process one step further. The understanding of the economic system may be no better for the addition of spurious mathematical rigour, but the status of economists is greatly aided. Mathematical economics cannot be readily used by just anybody; corporations and governments often find it necessary to hire academics as consultants.

In many cases a symbiotic relationship develops: academic knowledge is attuned to capitalist interests, but the academic knowledge develops so that capitalists are dependent on academics for legitimisation or practical application.

It is important not to overestimate the value of academic knowledge for legitimating capitalism. Capitalism structures people's lives and beliefs, and sophisticated intellectual justifications are seldom all that essential. For example, academic justifications are not important to the survival of mass advertising.

'Practical' applications of academic knowledge can be just as dubious at times. Academics have their hobby horses - such as the notorious regression analyses used in the social sciences - and some capitalists are foolish enough to ride them. There is no reason to believe that capitalists, who are often seen by leftists as perspicacious and ruthless in their drive for profits, always end up exploiting academia. Sometimes it is the other way around.

Yet another contending influence in the struggle over the nature of academic knowledge is groups such as workers, the unemployed, women, ethnic minorities, people with disabilities and the elderly. Such groups certainly have an interest in an economics or an engineering which would provide practical solutions to problems affecting them, or which would legitimate social perspectives that promote their interests. It is testimony to the comparatively larger influence of capitalism on academia that teaching and research oriented towards such groups is intellectually marginal. When it is introduced at all, it is usually considered low status or even unprofessional. This marginal intellectual position reflects the limited control over political and economic resources in society by these groups.

While most academics have little to gain in terms of grants or jobs by dealing with problems from the perspective of powerless groups, academia does provide a haven for some teaching and research in these areas. As I will describe later, capitalism is far from all powerful in academia.

Socialisation. Students who participate in higher education are en-

them. Many students realistically pursue the more important reality, credentials.

As I said, competition between students serves to orient them to external rewards. This is nicely compatible with the reward system in the wider society. There are also nasty side-effects, including cheating, bootlicking (of teachers), unfriendliness between students, and a general unsupportive environment characterised by self-promotion and mutual put-downs.

There is another important difficulty with competition in learning: it is neither as efficient nor as enjoyable as cooperative learning. When students help each other in a non-competitive atmosphere, the results are often eye-opening. The greater effectiveness and satisfaction from cooperative learning provides a primary avenue for increasing student participation and autonomy in learning. This avenue sometimes can be used to undercut staff domination itself.

Selection and socialisation

Academics maintain power over students by giving support to students who conform to the academic culture. The marking and selection systems adopted by most staff give top rewards to those students who faithfully do what the teacher requires. The usual methods of combining the assessment of essays, lab work and exams - not to mention mere attendance - reward those students who work hard and perform consistently. Creative students who do not fall into the usual mould do not do so well.

There is a fair bit of rhetoric in academia about encouraging creativity. For the most part this remains rhetoric. While there are a few academics who encourage student creativity, most academics, through their attitudes and assessment procedures, strongly discourage any real challenge to orthodoxy. Academic 'creativity' means being slightly different within the established parameters. To be creative by exploring climatic effects on culture when the dominant paradigm in anthropology is based on cultural independence of the physical environment, or to be creative by investigating external conditioning of individual preferences when the dominant paradigm in economics is based on the autonomy of such preferences, is simply not the way to get ahead. It might be tolerated for an essay or two, but quickly becomes unacceptable because it is not what is on the syllabus. Creativity is potentially dangerous to academics since it can threaten their control over knowledge.

Basically, what is required to be a top student is to perform the way the academics prefer. Since the students who do not cooperate receive at best little encouragement, and at worst are penalised or failed outright, any student challenge to staff power is minimised. What this means is that students are selected in the image of the academics.

The academic culture in most Western societies is predominantly white, middle-class, male culture. The selection of students by their conformity to the academic culture is an effective way of excluding most members of the working class, ethnic minorities and women. In this way the academic culture is reproduced and staff power - tied to a particular class, ethnic and gender base

- is maintained.

However, the credential system which is the key to staff power also provides opportunities for some members of groups which are discriminated against to rise within the academic system. Because the system is formally based on performance, it is possible for some students who are from working-class backgrounds, from ethnic minorities or who are women to succeed. Often such students must overcome lack of encouragement or overt discrimination; sometimes they are given full support by staff. But in any case they must adapt to the academic culture. This is the process of socialisation, which affects all students who proceed through the academic system.

The process of selection involves staff encouraging students who fit their ideas of proper students. Socialisation can be seen as a process by which students adapt *themselves* to fit staff ideas of proper students. Students learn a lot about how best to survive and progress. Being aggressive in discussions with the teacher or questioning the teacher's competence are seldom the way to proceed. Nor is it wise to write essays on 'non-academic' themes or to use any style other than the academic writing style. Certain issues, arguments and types of argument are welcome, others are not. Students succeed by adapting to the expected behaviours.

As described in chapter 3 on hierarchy, staff are also subject to socialisation. Generally teachers are not encouraged to be too popular with students, or to spend too much time with them. Teachers are expected to focus on the subject matter and not adjust it just because students are interested in something else. A teacher who identifies with students rather than staff essentially becomes a traitor to her peers. It is 'better' to be scholarly - in other words, reserved, unexciting and 'proper'. Others would call this being stuffy and pompous.

Exclusion of students from decision-making

Staff dominance over students is built on and maintained by the restriction of opportunities for students to participate in decision-making, and in particular to judge the competence of teachers.

Content of the syllabus. Institutions usually allow students some degree of choice in what courses they take, but within any given course there is less choice. Most teachers establish the basics of the syllabus, allowing students a choice of topics only in marginal areas.

Method of teaching. Most staff give students little or no power to influence how the courses are taught.

Methods of assessment. Staff usually decide on how assessment will be carried out. A modicum of student input in this area is not all that threatening to staff power, so long as staff do the assessing!

Awarding of credentials. Any student influence here is rigorously excluded.

Assessment of teaching. Teaching performance is seldom formally assessed by anyone: this would be a threat to the status and autonomy of academics as professionals. Student assessment of teaching is regularly denigrated

way in which capitalist influence penetrates into the ostensibly pure and abstract subjects such as physics and philosophy. For these and other subjects, the existence of capitalism as a backdrop provides the illusion that subject matter is being taught or researched mainly because it is intellectually central, since the influence of capitalism on the perception of intellectual merit in a field is indirect rather than overt as in the case of direct funding or job opportunities.

Economics provides a good example. Since capitalism is the dominant economic system, it comes to seem self-evident that the issues of concern in the discipline of economics involve modeling or managing a market economy. Looking at workers' control, for example, is completely outside the mainstream of academic economics. There are few research grants or job prospects to be found in looking at how workers rather than capitalists can control the economic process. Partly as a result of this, the academic conception of economics leaves out workers' control entirely, or at most relegates it to a fringe topic.

In doing economic research, the prevailing set of ideas, methods and problems - namely the research paradigm - thus is conditioned by the existence of capitalism as the dominant economic system. Paradigms in other fields are also influenced by capitalism. In agriculture, the dominant paradigm includes management of large-scale monocultures, with production geared for large-scale corporate processing, distribution and sales. Research in geology includes an orientation to the earth as a source of minerals to be exploited, an orientation compatible with the interest of the mining industries. Paradigms for most of the engineering disciplines are also geared towards corporate interests.

The orientation of academic teaching and research to guiding ideas and outstanding problems which reflect capitalist interests is only part of the story. Academic knowledge can be useful to capitalists if it helps them solve practical problems. But also important is the function of academic knowledge in legitimating capitalist arrangements. Neoclassical economics does not provide a very useful way of understanding the reality of capitalist economics. The theory doesn't adequately treat the role of the state, economic exploitation of the Third World, the massive influence of oligopoly, the manipulation of consumer demand, the role of manager-worker struggles, and the harmful consequences of the pursuit of profit. What use is such a theory? What it does do is provide a legitimization of actually existing capitalist economics, by downgrading the nasty side of reality and instead erecting an elegant intellectual scaffold including the concepts of the maximum efficiency of a free market and the economic inefficiency of political redistribution of the economic product.

In this case there is an awkward trade off between the advantages to capitalism of an academic discipline which leads to practical understanding and research, and one which provides legitimization. The problem is that researchers and students *believe* in the tenets of neoclassical economics. Then they enter jobs in industry or government. The result on many occasions is policies which are counterproductive for the capitalist system, as in the con-

‘capitalist cause’ in relation to higher education. This may take the form of attacks on the irrelevance of academic work to ‘practical problems’ or ‘the national interest’ (in other words, corporate interests), or attacks on the left-wing bias of academics and student radicals. These attacks may come from journalists in the pro-capitalist press, or involve talks (and the reporting of talks) by leading corporate executives.

The use of such public channels does not necessarily indicate a strong corporate influence: it often signifies a lack of influence through inside channels.

Research funding. In certain disciplines, corporate grants are the major basis for research. From the corporate point of view, this is known as ‘hire education’. For example, researchers studying pest control can expect to receive extensive funding from chemical companies. This provides a major incentive to investigate problems compatible with corporate objectives - such as the comparative effectiveness of different types or ways of applying pesticides - rather than looking at solutions that don’t generate comparable profits, such as using biological or mechanical means of pest control, or diversifying crops and tolerating a certain loss.

In some cases corporate research can lead to corporate ownership of knowledge produced by academics, usually through the medium of patents. For example, much research in genetic engineering is subject to commercial agreements of various sorts.

Direct capitalist funding mainly comes from particular segments of business, especially the largest corporations. You will not see many hairdressers or small growers stalking the corridors of academia offering or seeking favours.

Job opportunities. Corporations provide a large proportion of jobs, and this greatly affects the role of higher education. In areas such as accountancy, commerce and engineering, the curriculum is often strongly oriented to the requirements of employers. This is a response, in a decentralised educational system, to the movement of students to those institutions which provide the best training and credentials for obtaining corporate jobs.

Job opportunities are important for staff too. When academic staff know that their prospects for corporate employment are likely to reflect the relevance of their research and their courses to corporate interests, they are less likely to adopt research and teaching perspectives hostile to those interests. In many areas there is a process of personnel exchange: Academic staff take up corporate posts, and those with ‘industrial experience’ may be given preference in obtaining academic jobs. (Experience in mothering, for example, doesn’t give an equivalent advantage.) Once again, this applies especially in areas where academic work has a clear and direct relevance to particular corporate sectors, such as engineering.

Topics for teaching, problems for solution. Capitalism shapes a great deal of ‘the way things are’, including buildings, jobs and television culture. It also establishes the general panorama of ideas and problems from which syllabuses are drawn and research problems picked. This is the main

by academics. The grounds offered for this are diverse, but often boil down to the assertion that students do not know what is good for them.

One area where student activists have made headway is in surveying student opinion about courses and teachers, and publishing the results. These efforts are valuable as far as they go, but that is not all that far. One difficulty is that teaching performance is not very important for the advancement of academics; therefore the impact of student surveys of teaching on appointments and promotions is minimal. Another difficulty is that most student surveys assess teaching purely in terms of performance within the parameters of staff control of content, methods and assessment. To concentrate on effective *teaching* is to assume the prevailing control by teachers over the conditions for learning.

Assessment of research. Students are excluded from any assessment of staff research performance on the grounds that they do not know enough about the subject, the same grounds that are used to try to exclude other people outside the discipline or speciality. In this case specialist knowledge is used to maintain staff power. Even in those rare departments where students have an input into decisions over staff appointments, the staff monopoly on esoteric knowledge gives them extensive power.

Participation on decision-making committees. Until the late 1960s, students had no representation at all on major decision-making bodies in most higher education institutions in Western countries. The rise of the student movement and demands for academic participation and democracy - especially when accompanied by direct action by students - led to major changes in many countries. Students now have representatives on many committees, from the departmental level to the governing body. In almost all cases the students are in a minority. The basic relationship between staff and students has not changed. The uncompromising refusal to allow any student participation has been eased in many quarters, but staff still hold most of the power to define the content and method of teaching and certainly still control the assessment and awarding of credentials.

Even so, student participation on decision-making committees remains a potent bone of contention. Many staff are bitterly opposed to any student role that is more than nominal, and would be pleased to ‘roll back’ the gains in student representation. But since these gains have been institutionalised in regulations and expectations, the usual procedure is to marginalise and neutralise student representatives by keeping as much of the real decision-making process out of student hands.

The hidden curriculum

The so-called hidden curriculum is all those things which are not part of the formal syllabus but which students are encouraged to learn through the structure of the learning process. There has been so much discussion in education journals of the hidden curriculum that it is not really ‘hidden’ any longer - at least to educational theorists. But for practical purposes most parts of the hidden curriculum remain unnoticed and unremarked. Many of these serve to

maintain staff domination.

I have already discussed several facets of staff domination which can be considered part of the hidden curriculum. These include the division of knowledge into disciplines and specialities, the division of study into disparate courses, the control over course content by staff and the imposition of assessment and credentials. Here I focus on some of the more mundane aspects of student life.

Classroom structure. In most lectures, the academic stands at the front of the room and talks to the students, who are sitting in an ordered array of seats all facing forward. This familiar arrangement establishes the academic as the source of knowledge and the centre of attention. Anyone who has given a talk to an audience will realise the incredible degree of power in being the speaker. Even the most knowledgeable and confident opponents in the audience have a hard time overcoming the speaker's advantage. Combined with the academic's control over content and assessment, the advantage is seldom challenged in the first place.

Rearranging the classroom seating arrangements - for example by having everyone sit in a circle in a tutorial - is a contribution towards breaking down teacher domination. It is only one part of doing this, but an important symbolic step.

Class times. Classes are usually fixed according to a timetable to which students and staff must adjust. 9 am: history; 10 am: English; 11 am: biology. The message in this is that learning is something that is readily chopped into bite-size bits, and is something that happens in classrooms. Just before classes begin, students race to their own classrooms to hear another lecture - often boring. Few students are quite as concerned to race to hear a non-academic talk, or witness a public event, or to read a book or magazine. Activities that are not part of the formal learning process have lower priority. Most libraries and laboratories are not so avidly frequented during vacation periods. Many students come to believe that anything that is not part of a formal course is not really learning. Similarly, great insights presented in textbooks are worthy of note, whereas the same insights presented in newspapers or by neighbours are not.

Class times tie students to the staff, and more widely to the routine of the institution as a whole. If students cannot adapt - for example due to rearing children - that is just too bad.

Regulations. Registering for entry into an institution, enrolling for courses, paying fees, attending classes, taking formal examinations, submitting essays: all these routine activities are subject to various official regulations. The message in all this is that adjustment to bureaucratic regulations is essential to getting ahead. It is not what one has learned that is central, but rather whether one has satisfied a whole sequence of formal requirements. Regulations, like credentials, encourage a focus on the symbols of learning rather than the substance. They also provide a wonderful resource for staff who want to keep students from straying from the straight and narrow.

Classroom structure, course content, class times, regulations: Students

control institutions of higher education. There is no Exxon University. (The exception that proves the rule is McDonald's Hamburger University in Chicago.) Many corporations do provide funding to higher education, but this provides only a small fraction of the total funding. Capitalist influence on higher education is mainly indirect.

The most important influence of capitalism on higher education is the existence of the capitalist system itself. Because it is a major system of power in society, people and social structures adapt to capitalism. I describe here a range of influences exerted by capitalism on staffing, research, teaching and academic knowledge.

Before beginning, it is worth noting some of the limits on capitalist influence. First, most capitalists and supporters of capitalism do not think in terms of promoting capitalism, at least not in the framework used by most theorists of capitalism. Individual corporate managers may think in terms of free enterprise, serving the community, making profits, or simply doing their regular job. Few of them take a long term view on the capitalist system and how to promote it. The capitalist system drives individual capitalists to look after their own interests, even though this may be dysfunctional for capitalism as a whole. This is why the state can sometimes - far from always - serve capitalism better than the capitalists.

Second, capitalists are not homogeneous. There are many conflicting interests. They have different concerns about education.

Third, interactions by corporations with higher education are not always translated into a major effect, or even an effect at all. For example, I did my PhD at Sydney University in what was then officially called the Daily Telegraph Department of Theoretical Physics. The *Daily Telegraph* - a tabloid newspaper not noted for the depth of its science reporting - initially provided some money to the department. The main return to the newspaper was the naming of the department. The *Daily Telegraph* never had much impact on research or teaching in the department. Even when corporations do apply pressure on higher education, there are many sources of resistance, including the desires of workers, parents and teachers. Still, it must be admitted, the department was named after the capitalist *Daily Telegraph* and not after the *Daily Worker*.

Fourth, capitalists may act counter-productively. There is a lot of ignorance involved in the intermeshing of the power systems of capitalism and higher education.

With these reservations, it is time to turn to the varieties of capitalist influence on higher education.

Inside channels. This involves capitalists lobbying or sitting on bodies that decide higher educational policy. For example, capitalists are among those who lobby government bureaucrats concerning decisions about new faculties in universities or the allocation of money between the elite and the more vocational sectors of higher education. Another key role is that of top capitalists on governing bodies of universities.

Public channels. From time to time, certain individuals promote the

CAPITALISM

CHAPTER 9

Capitalism is a way of organising economic relations based on private control over the means of production, including farms, factories and knowledge. The 'private control' here usually refers to control at the level of an enterprise. The key to capitalist control used to be ownership, but now control usually rests in the hands of top management, who run large corporations which are structured in the form of bureaucracy.

Capitalism as a system involves some form of economic competition between enterprises in a market. What drives the capitalist system is the struggle for corporate survival and profit. Individual capitalists have little choice in their behaviour if they are to prosper.

Contemporary capitalism is strongly regulated by the power of states. The more powerful states have a wide range of controls over corporations: taxation, trade regulations, worker legislation, consumer safety and environmental regulations, etc. Much of the activity of the state serves to strengthen the capitalist system, for example by regulating government expenditure to reduce the impact of booms and depressions and by providing social welfare which reduces the likelihood of radicalisation of workers' movements. Small states have less room to manoeuvre in the face of large transnational corporations. But states - especially the stronger ones - are not simply tools of capitalism. Quite a few state policies are undertaken which are fiercely opposed by most capitalists and, more importantly, are not in the interests of the capitalist class. Examples are some takeovers of sections of industry by the state itself, and some wars.

In state socialist countries, the economic system is controlled by the same state elites who run the state, namely communist party leaders. One of the main differences between state socialism and capitalism is that in the latter there is a significant system of power in the sphere of large scale politics and economics which is *not* based on the power of the state. In other words, capitalism provides an alternative base for power than the state. This is important for higher education.

Capitalism also adapts to other power systems. Patriarchy, for example, by keeping many women at home or in gender-segregated occupations, inhibits the operation of a free market in labour power which would be functional for capitalism. Another example is the internal bureaucracy of most firms which serves to stabilise internal control at the expense of inhibiting innovation, maintaining inefficient work practices and procedures, and not responding to market shifts.

Capitalism and higher education

Aside from a few isolated instances, capitalists do not own or directly

must adjust to all of these. One of the most important lessons is that someone else organises the conditions for learning.

Reverence to scholars. One of the attitudes promoted by staff is reverence to scholars, living and dead. The process is most obvious in the usual attitudes towards epic figures, such as Einstein, Darwin, Freud, Marx, Weber and Shakespeare (all men). The 'geniuses' are typically treated as disembodied intellects. Their prejudices, blunders, and social inadequacies are seldom discussed, and even the hostilities they faced in their own time often are not studied.

The process continues in attitudes towards living 'greats', including the more luminous scholars on the local campus. These figures often are portrayed, at least to students, as so erudite that no undergraduate would dare to strike up a casual conversation with or to write to the prestigious author presenting her own views or asking advice. In practice, many of these ostensibly formidable figures are quite approachable. After all, they are humans like anyone else, with foibles, friendships and personal difficulties. But the impression often picked up when reading their books and articles is quite different. Students may treat them as authorities or, in later years, criticise their work. In neither case are these 'greats' responded to as real human beings.

The reverence given to great dead and living scholars rubs off on the ordinary academic. Many students treat any academic who has published a book or some articles, or who simply is higher up the ladder than they are, as someone akin to a holy figure. Some academics encourage such attitudes, while others promote more casual, egalitarian interactions. It is hard for academics not to be more favourably disposed towards students who look up to them and hang on every word. Even those academics who try to treat students as equals often have a hard time overcoming student awe of scholars. My point here is that the usual attitudes towards 'great' scholars, and the careful attention to the minutiae of their holy writs, adds to staff power. Students are greatly inhibited in challenging staff because they believe themselves intellectually less advanced or sophisticated. Even when students are quite capable of tearing an academic's views to shreds, they seldom have the courage to do so.

Banking education

Much of higher education is based on 'the banking concept of education': students are treated as empty receptacles, to be filled with knowledge provided by the teacher, the same way deposits are made to a bank. To use another familiar metaphor, students are expected to swallow without chewing bite-size bits of pre-digested syllabus material and to regurgitate the material for assessment purposes. This used to be called rote learning.

The banking concept of education is a parody of the officially stated aims of education, such as to encourage critical thinking and the ability and motivation for self-initiated learning. But the actual practice of many teachers, departments and institutions does follow the crude banking approach. It is damning comment on educational systems to find that after 12 or more years in school, students are still not capable of pursuing their own study. But this is

only to be expected, since the driving forces behind schooling and higher education are not ones which foster critical thinking and self-motivated learning.

The banking approach to education gives power to teachers. It is the teachers who know what the students need to know. It is knowledge - of which the academics are the guardians - that defines what students must learn and about which they must demonstrate their competence.

Not all academics promote passive ingestion of the syllabus. Especially in advanced courses, original and critical thinking is necessary to make sense of academic knowledge. This is especially true in the humanities and social sciences, where conflicting interpretations and common theories are common. Many academics are truly excited by the intellectual work they do, and are less concerned to protect the academic guild than to communicate their excitement and to encourage others to join in. These academics are bored and disappointed by students who regurgitate the conventional viewpoints, or who try to please the teacher by parroting her views. They try to encourage critical thinking.

Even without encouragement, many students are challenged in their own views or begin questioning conventional wisdoms as a result of their studies. Many academic subjects contain quite subversive ideas, however dressed up in academic garb they may be. Some students develop critical orientations and, in spite of the disincentives towards unconventional thinking, begin examining all academic knowledge critically. Others have critical orientations which survived the years of primary and secondary schooling. The upshot is that academic study encourages some critical thinking, and sometimes this is used against academic power itself.

Alternatives

The power of staff over students is so accepted today that it is hard to imagine alternatives. Yet there are quite a number of different possibilities, many of which have prevailed in the past.

Staff-student control. In this model, staff and students work cooperatively to design the syllabus, choose learning-teaching methods and make decisions about entry to courses and appointments of staff. These decisions might be made at the level of courses, departments, faculties or institutions. Decision-making might operate by consensus, small-scale democracy or larger-scale representative democracy, or by various forms of rule by cliques such as by men or whites.

Within most present higher educational institutions, such a model would require a revolutionary change in the power structure. Nevertheless, it would not necessarily have wider ramifications. As long as state funding of higher education remained, it would benefit both staff and students. The influence of capital is compatible with continued male domination, and conceivably compatible with various forms of interpersonal hierarchy.

In this alternative, the staff and students would work together, realising their joint interest in monopolising job opportunities through credentials and esoteric knowledge. In practice, this model often applies at the higher lev-

References

- Margaret Scotford Archer, *Social origins of educational systems* (London: Sage, 1979). A macro-sociological perspective on educational systems, stressing the role of the state, of competing interests and of historical background.
- Margaret Scotford Archer (ed.), *Students, university and society: a comparative sociological review* (London: Heinemann Educational Books, 1972). Chapters on higher education in different countries, especially in relation to students.
- Patricia Broadfoot, Colin Brock and Witold Tulasiewicz (eds), *Politics and educational change: an international survey* (London: Croom Helm, 1981). Articles dealing with states and educational systems.
- Robert Nisbet, *The degradation of the academic dogma: the university in America, 1945-1970* (New York: Basic Books, 1971). A biting attack on the state and on its role in directly funding the research of individual academics and thus destroying the medieval-type university.
- Val D. Rust, *Alternatives in education: theoretical and historical perspectives* (London: Sage, 1977). An outline of the historical development of the varied social dimensions and current crisis of 'modernity' as they have impacted on education.
- John H. Van de Graaff, Burton R. Clark, Dorotea Furth, Dietrich Goldschmidt and Donald F. Wheeler, *Academic power: patterns of authority in seven national systems of higher education* (New York: Praeger, 1978). An analysis and comparison of formal authority relationships in different countries.
- On the acquiescence of the academic and scientific community to state imperatives, see Jonathan Feldman, *Universities in the business of repression: the academic-military-industrial complex and Central America* (Boston: South End Press, 1989); Carol S. Gruber, *Mars and Minerva: World War I and the uses of the higher learning in America* (Baton Rouge: Louisiana State University Press, 1975); Joseph Haberer, *Politics and the community of science* (New York: Van Nostrand Reinhold, 1969).

Dominant funding by corporations, churches or professions. There are few groups in society with the economic resources to fund higher education at its present scale. None of the possible contenders - especially corporations - are very attractive to academics since there would be much tighter controls over their work. Any form of mono-integration would be opposed by other groups which presently have some influences over or benefit from state-financed higher education.

Doing things that cost less. This option involves cutting down on high-cost activities. Examples are shifting away from capital-intensive scientific research or giving students less formal teaching and more autonomy in pursuing their studies. While cutting down on 'big science' would reduce academic dependence on the state, it would also reduce the state's dependence on the expertise of academics. Giving students more autonomy would reduce the power of academics over them. 'Small is beautiful' is not attractive to groups seeking higher salaries and increased social status in a stratified society.

Self-financing by fees. Tuition and other student fees at the moment supply only a fraction of the financial support for higher education. If fees were to become the primary source of income, this would lead to reduced academic salaries, and also reduced enrolments and academic employment since only a minority could afford increased fees. This is not attractive to academics. State control over education would be undercut, and popular opposition would be enormous.

Self-financing by direct production. Higher education could take place in conjunction with factories, agriculture, consulting and other direct means for self-financing. The production would most logically be carried out by both staff and students, and be integrated into the learning process. This has been state policy at times in some Third World countries, notably China.

A few academic programmes of 'education with production' have been going on for decades in industrialised societies, but their successes have seldom been noticed, let alone emulated. A key function of higher education is licensing graduates for occupations with restricted entry. This has little to do with *what* is learned. Vocational education is widely seen as low status; it is provided mainly for those who have dropped out of the academic stream.

Education with production is not attractive to the state or corporations since an independent source of economic power would be established. Nor would academics be enthusiastic. Lucrative consulting in addition to normal salaries is one thing; stooping to direct production is another.

Deinstitutionalisation. If institutions of higher education were abolished, the same training could take place in a range of situations, such as factories, neighbourhoods, churches, professional study groups and learning networks. This would eliminate the direct role of most academics. It would not necessarily reduce the influence of groups such as capitalists, since the interest groups dominant in the local contexts in which learning took place would have a strong influence on the form and content of learning. The state would still exert a strong influence on education, but educational bureaucrats would lose their direct control.

els of study, particularly advanced degree research which is basically an apprenticeship system.

Student control over teachers. In this model, the students hold most of the power, and the staff perform according to student requirements. For example, students would decide what subjects to study, when study would take place, the method of teaching, what teachers to hire, and the amount of payment.

Historically, students have held power over teachers when the students are members of a wealthy or politically powerful class and the teachers (often isolated as tutors) have been poor, unorganised and numerous. The teachers cannot dictate to the students, or even step very far out of line, for fear of losing their jobs.

This alternative would not be feasible today unless the academic guild and its control over credentials were smashed, for example by withdrawal of state licensing and financing of higher education. The result would probably be that the most prominent 'students' would be staff of large corporations that hired scholars as part of their normal recruitment policies to provide advice in technical skills.

Deschooling. In this model, the credential system would be abolished in favour of a market in skills. Learners and teachers would seek each other out and make arrangements that were mutually satisfactory. Teacher control would be hard to establish because there would be no licensing of teachers or courses and hence no barriers to the entry of new teachers where a heavy demand existed.

Deschooling is essentially the removal of the formal apparatus of schooling, with its forced attendance, fixed syllabus and credentials. Deschooling is pretty unlikely to make headway given the present vested interests in the credential market and in the control over students. But even if deschooling took place, by itself it would not challenge the power of the state, corporations or professions. These groups might well be able to hire teachers and to establish restraints on commerce in knowledge and skills which would undercut the radical potential of deschooling.

Reference

Christopher J. Wainwright, *The degree merchants: inside the New Zealand university system* (Albany, New Zealand: Stockton House, 1977). An exposé of higher education, focusing on the subordinate role of students.

BELIEFS

CHAPTER 7

Beliefs are vital resources in power struggles. If members of an oppressed ethnic group believe that they are inferior or undeserving, they are much less likely to challenge their oppression. To a considerable degree, beliefs are a reflection of the existing power structure. Many people simply assume that the distribution of wealth, or the application of the law, is either just or inevitable. But beliefs also play an important role in maintaining or undermining these same arrangements which they reflect. Contending groups attempt to mobilise support by reaffirming prevailing beliefs, by questioning received knowledge, and by promoting alternative beliefs.

To serve as political resources, beliefs do not have to be correct or even make any sense. Judging by mail received by television stations, quite a few people believe that the episodes in serials are really happening. Much mass advertising is blatantly misleading - such as cigarette advertisements that imply that smoking enhances sexual potency, when actually the reverse is true - but is nonetheless effective in persuading some people. Often it is an advantage to be promoting beliefs which stand up to critical examination, since such beliefs are harder to challenge. But many incorrect beliefs are widely held because they are congenial with social or political arrangements, such as beliefs about the laziness or worthlessness of poor people.

A set of beliefs which is organised into a coherent whole can be called a world view. Another term for this is ideology. The term ideology is usually applied to a coherent set of beliefs which is selectively useful to a particular group of people. The term 'ideology' is often applied to a set of beliefs in order to discredit it. This is a typical example of the use of ideas in power struggles.

Academics deal extensively with ideas and subject them to close scrutiny. But that does not mean that academics are any less susceptible to beliefs which serve themselves or other groups. In this chapter I outline some of the beliefs about academia which are prevalent among students and academics. I have divided these into four groups, under the headings of individualism, neutrality, privilege and status quo. These four groups cover many but far from all academic beliefs. My main aim is less to expose the inadequacies of these beliefs than to point out how the beliefs relate to the 'academic power struggle' in the widest sense.

It is necessary at this stage for me to reiterate that nearly everyone is well-meaning and sincere in their beliefs. That is not the point. At issue is what purposes beliefs serve.

Individualism

There is a whole complex of beliefs which fall under the category of individualism. Some representative ones are:

tion because of the economic expansion. Often in such periods there are increased opportunities for innovation in higher education. Aspirations of many groups are increased, and academic programmes are set up to deal with pressing social issues. Black studies programmes set up in the late 1960s in the US are one example. While the rapid expansion increased the opportunity for innovation, arguably this served as much to coopt dissent as to institutionalise radical programmes.

By the mid 1970s the boom years had come to a close as the economic situation deteriorated. Governments cut back on higher education expenditure; in most areas there was an oversupply of graduates in a period of stagnating employment. The most dramatic example is Britain since 1979. The cutbacks had several effects on academia. The most fundamental was increased adaptation to state priorities (otherwise known as the 'national interest'). Without much overt direction from the state, academics began declaiming the relevance of their work to state and corporate needs. Rather than becoming more critical of state control, academics tried to show that they were worthy of the state's support.

The cutbacks have also stymied initiatives towards more equal social participation in higher education. Student intake became more restricted; staff in insecure positions - notably women - lost their jobs or their career prospects.

In *both* times - expansion and contraction - there has been a gradual increase in state bureaucratic control over higher education. In the period of expansion, increased funding itself helped institutionalise the state's role. Also, the increased size of institutions meant increased bureaucratisation internally as well as for meshing with state bureaucracies. The period of contraction has led to increased influence by the state via the demand for management of limited funds. British authorities 'suggested' particular programmes for cuts, and also moved to change contracts for new staff to allow dismissal of tenured staff due to financial constraints.

No doubt some of the moves by the Conservative government in Britain were taken to undercut the power of the left in academia. But the squeeze on higher education in Australia has continued under the Labor government since 1983, again with the effect of inducing academics to orient their activities to the state and corporations.

These moves have led to the forming of opposition. British academics, especially through the national union, organised themselves to vocally protest against the cuts, organise mass action, build public support and form alliances with groups such as trade unions. Applying the squeeze on higher education thus has the dual result of increasing the subservience of many academics and of mobilising them in alliance with other groups.

Alternatives to state funding

As noted before, currently there is no serious alternative to state funding of higher education. The main concern on both sides is negotiating the terms of the relationship. Here are some alternatives to state funding, and why they are not seen as attractive by academics and other groups.

tainment, as well as workplace management - and for developing knowledge and techniques to aid this administration.

Traditional knowledge was imbued with traditional social assumptions, such as the proper role of peasants or women. Much contemporary knowledge is imbued with social assumptions about the technocratic management of society.

These changes are also influencing the internal power structures of academic institutions. There is a shift in decision-making power from lower to higher levels: from professors, departments and faculties to government and academic bureaucracies staffed by full-time administrators. The top-level administrators monopolise the most important policy decisions while delegating responsibility for detailed decisions to lower levels. The policy process as a whole is more formalised, ensuring that things go through the 'proper channels'.

At the same time, there is increased formal participation by previously excluded groups such as sub-professorial academic staff, non-academic staff and students. For example, they may have representatives on governing bodies and faculty committees. This increased formal participation is closely connected with increased bureaucratic control: governments and academic administrations can break traditional professorial power by mobilising support for student participation, equal opportunity or occupational health and safety measures. What is happening is a gradual breakdown in the previous feudal power system within academia and the expansion of bureaucratic power.

One thing is quite clear. Once an educational system is centralised, ruling elites will not decentralise it voluntarily since that would mean relinquishing power. The Soviet rulers did not decentralise the Czarist educational system, and neither did the post World War II Italian governments decentralise the centralised system organised by the fascists. This gives some idea of the difficulties in reversing the present trends towards bureaucratised higher education.

Expansion and contraction

Institutions of higher education have expanded in size for many decades. From 1900, the trend in the United States has been for the proportion of the post-secondary population participating in tertiary education to approximately double every twenty years. But within this overall trend there are periods of greater or lesser expansion. It is useful to contrast the expansionary 1960s in English-speaking countries to the contraction in the 1980s.

In a period of economic expansion, some social groups have more money. Parents are likely to demand educational opportunities for their children because they correctly perceive that access to privileged occupations depends more on credentials than on knowledge (without credentials) or experience. One reason that state elites move so readily to expand funding of higher education in this situation is because it is electorally popular. Another reason is to pre-empt alternatives, such as corporate training programmes or a shift to private institutions. The state can afford to increase funding of higher educa-

- anyone can succeed if they are good enough and try hard;
- failure is a product of individual deficiency;
- the academic system operates as a meritocracy;
- brilliant academic work springs from individual creativity;
- to be successful you have to go it alone;
- criticisms of academia derive from disgruntled individuals.

The basic theme here is clear: the operation of the academic system is based on individual behaviour rather than collective or structural processes.

The evidence against individualism is enormous. Most obvious is the structural discrimination against women, ethnic minorities and the working class. In addition, the state, capitalism and the professions influence the opportunities and criteria for academic success. The academic hierarchy, with its cliques and empires and systems of exploitation, is far from an individualistic system. In getting ahead in academia, it is much less a question of what you know than of what credentials you have, who your supervisor is, what your speciality is and who your friends are. The belief in individual creativity overlooks the social factors that allow creativity to be expressed and recognised. The belief in individualism denies the essential power dynamics of academia.

Many students and academics are skeptical about individualism. They are aware of the role of patronage and power-broking. But beliefs about individual responsibility are very deep-seated. It is *assumed* that individuals deserve what they get. "He's a respected professor and a member of the national academy. He *must* be good!"

Beliefs about individual responsibility for success or failure are useful to academics who succeed. They bask in the glory of individual triumph; their commitment to the system is reinforced. Those who fail often blame themselves. They too believe in individual responsibility. Therefore the hierarchical system is not challenged by those who are given poor or inappropriate teaching, those who are kept in dead-end jobs or whose work is exploited, or whose ideas are denigrated.

Beliefs in individualism are prevalent in academia partly because they are promoted by other powerful groups in society who use them to limit challenges to their power. Beliefs in individualism also flourish due to the system of credentials and the hierarchy of career positions, which are perpetuated through formal systems such as examinations which give the illusion of equality of opportunity.

Those who question individualism thereby question the academic power structure. The academic system is touted for its fairness. If it is exposed as a prejudiced system, then those who have lost out may organise to challenge it. One of the major aims of feminist scholars has been to document structural biases against women. This lays the basis for demands to alter academic policies.

Beliefs about individual responsibility are often used by academic elites to defend against challenges. Rather than responding to criticisms on the

basis of their content, attacks are often made on the motivations of the critic. When individual students seriously question the content or organisation of a course, a standard response is to ask what is wrong with them and to suggest that if they don't like it they can leave. When masses of students confront university administrations with demands for reform, one standard response is for the administration to blame the unrest on a small group of 'radicals', 'agitators' or 'malcontents'. In case after case, administrators have selected out student leaders for reprimands or expulsions, believing or attempting to portray the student movement as a conspiracy. To counter this, students have tried to demonstrate the broad base of their support and the collective nature of their demands.

Beliefs in the key role of the individual are often detrimental to those who believe them. Students and academics who absorb the idea of individual achievement are less inclined to organise themselves for collective learning or research, and more likely to be caught in syndromes of self-blame. Administrations often exacerbate the problems confronting them by attributing criticism or protest solely to individual disaffection.

Neutrality

The second group of beliefs centres around the neutrality of academic knowledge. Many academics are quite convinced, and eager to emphasise, that their research is 'value-free': untainted by political or economic imperatives. 'Pure research' is the holiest of academic activities.

My whole argument about tied knowledge is based on a denial of the possibility of knowledge free of values. Claims about neutrality are useful to academics since they help ward off threats to academic autonomy, and leave unquestioned the links between academics and powerful groups. Beliefs about neutrality also enable individual academics to think of their work as a higher calling. This would be more difficult to sustain if the selective usefulness of their work to profit, social control or academic privilege were acknowledged.

Beliefs about neutrality have several other manifestations. One of these is that higher educational institutions are not involved - and shouldn't be involved - in political activity. This belief legitimates routine political involvement, such as institutional investment policies, academic consulting and service on government committees, and perpetuation of academic styles and credentialing systems which serve to create and perpetuate a system of privilege. Beliefs about institutional neutrality are used to attack those who disturb this nice harmonious arrangement. A key part of the student indictment of higher education in the late 1960s was precisely that academic institutions are not neutral.

Academic freedom is normally justified as protection of research and teaching against political demands by outside groups. Beliefs in academic neutrality thus are closely tied to arguments about academic freedom. If higher education were acknowledged as unavoidably political, then its particular political stances would have to be justified.

It is relatively easy to expose claims to neutrality as the shams that

Trends influencing state-higher education relations

A key characteristic of contemporary societies is the ever-increasing intensity of the creation, dissemination and use of knowledge. This applies in many spheres: in the economy, in the military, in communications and indeed in education itself. The increasing dependence of modern economies, militaries and cultures on knowledge has been a factor in the great expansion of student numbers in higher education. (Another factor has been parental and student demands for advanced training as a basis for individual social mobility.) This expansion has had several consequences for the relation of higher education and the state.

First, there has been a reduction of the upper class exclusiveness of undergraduate education. Those individuals whose social background prepares them for elite positions are now less distinguished by mere participation in higher education. Graduation from particular elite institutions and also higher degrees are now more important as a basis of legitimation of elite status. Social stratification is reflected in the stratification of higher education.

Second, the increase in student numbers has facilitated the increased role of bureaucracy in education, especially through the great increase in size of many campuses and through the increased role of the state in establishing and overseeing new institutions.

Third, increased participation means increased cost of higher education, which has largely been borne by the state. This has increased pressures for accountability of academic institutions to the state.

Finally, the high rate of change in knowledge and in the occupational structure has meant that once-through education as a 'preparation for life' has become more and more irrelevant. As a result there are more 'mature age' students and pressures to introduce 'lifelong education'. Some professions also push for ongoing training to maintain standards and exclusiveness. Some state elites are likely to demand academic adaptation to this trend.

Another key feature of industrial societies is the breakdown of traditional social relationships. Not only has the extended family largely dissolved, but even the notorious nuclear family is frequently becoming a set of individuals partaking in short term relationships. Old allegiances to church and traditional mores are crumbling in the face of the spread of secular knowledge and mass communication. Ties to the local community and to workmates are weakening in the face of geographical and occupational mobility which is forced on people by the economic system.

Traditional ties are being replaced by new forms of interaction, of which the most important is bureaucracy on the job and mass consumption of centrally produced goods and entertainments. Many forms of social support - unemployment payments for example - are now provided by the state rather than by local institutions. The expansion of the role of the state, and of the role of bureaucratic administration, leads to a pressure and an incentive for academia to join in this process by training people for administration in the widest sense - including welfare, merchandising of products and lifestyles, and enter-

Academic adaptation to state funding

Far from resisting the provision of state finance, most members of the academic community are so completely accustomed to it that no major alternative is contemplated. This applies not only to academic administrators but also to most staff and students. The standard refrain from the academy is “give us more money”: lower fees, more student grants, higher academic salaries, more research funding, expansion of facilities, new departments and campuses, etc. The basic issue for academics is not whether state finance is a good thing, but how to obtain the finance while minimising the control by the state over decision-making within academia.

I once thought I had found a true academic opponent of state funding when I came across a colleague waving his paycheque and crying out “This is tainted”. But it turned out that he was only complaining about the machinations of the university pay office which had transformed a minor pay increment into a reduction in net salary. He was drunk, of course.

The basic reason why there is no substantial opposition to state finance is that there is no other source of large-scale funding which provides equal autonomy for the academic community. Although the state does have its own interests, it also mediates the interests of other powerful groups which have more narrow concerns about the uses of higher education. Compared to being totally financed by churches or capitalists, the state offers more leeway for academics to pursue what they see as academic concerns.

Another basic reason why there is no substantial opposition to state finance is that there are no attractive self-sufficient alternatives. If academics raised their income from direct payments by students - which was the case for example with Oxbridge tutors in the 1800s - the pay would be less for most academics, and their autonomy would also be less due to the need to avoid offending current and potential students and their parents.

Within academic research and curricula, there is no major strand of thought which provides a critique of the state provision of higher education. Marxism, the major radical perspective which has gained a foothold in academia, provides a critique only of the capitalist state, not of the state *per se*. Most Marxists mainly want to change the political and economic control of the state, not the state structure itself.

Rather than trying to build alternatives to state financing and regulation, academics have attempted to tie themselves to the state by orienting their teaching and research to state interests. ‘Policy relevance’ is a touchstone within many academic programmes.

Many academics have a broad sympathy for bureaucracy and the state because of their orientation to ‘rational planning’, namely the administration of people’s lives by managers exercising intellectual skills. Technocratic administration gives academics a more important role in society, both in training specialists to administer society and in consulting for or joining the technocrats themselves. This is one reason why many Western intellectuals have been attracted to state socialism, where there are no capitalists to compete with the ‘rational management’ of society by the state.

they are. The wide use of academic knowledge in all sorts of contexts, from town planning to intelligence testing, reduces most claims to neutrality to the equivalent of “I only load the gun; someone else fires it.” Furthermore, the justification for funding higher education on the basis that research will provide social benefits is hard to reconcile with claims to neutrality.

The alternative to claiming that academic knowledge is value-free is to admit that values are always involved, and make an attempt to expose what the values are. Often this approach is linked with efforts to make academic knowledge more relevant to disadvantaged groups. Not always, though. Governments may be quite able to recognise the value-laden nature of academic knowledge, and at the same time apply pressure to direct that knowledge towards their own interests.

Beliefs about neutrality do not always serve the interests of powerful academics and their patrons. Dissident academics often can make interventions on social issues, for example through critical teaching or research, and find themselves partially protected by beliefs in neutrality. Those objecting to the dissident’s activity often will attack it only on technical points. To make an attack on the grounds of the values in the teaching or research might lead to a wider questioning of the values in the work of other academics.

Privilege

Tenured academics are privileged in a number of ways: they have security of employment, a comfortable income, a stimulating occupation, periodic opportunities for travel, social prestige, and considerable leeway to determine the conditions of their own work. (Undoubtedly academics are not as privileged as many of them believe they *ought to be*.) An important academic belief is that these privileges are *necessary* to the achievement of academic work.

Associated with this basic belief are beliefs about subsidiary points, justified on a variety of grounds. Tenure is claimed to be necessary to protect academic freedom. A good salary is claimed to be necessary because otherwise top scholars would leave for more lucrative employment. Study leave is claimed to be necessary to maintain intellectual stimulation. It is claimed that only academics are qualified to make decisions on academic matters. There are many and varied defences of academic privileges.

The beliefs about the need for academic privileges are routinely used in justifying the privileges.

While many academic privileges are justified on the grounds of necessity, many academics also believe that academic privilege is *deserved*. It is taken for granted that intellectual ability and performance - also taken for granted - should be rewarded by special privileges.

Beliefs about the necessity and justice of academic privilege do not square with the perspective in which the claims of academics are based on tying knowledge to powerful groups. Privilege is far from necessary for intellectual work. It simply makes life more comfortable. The image of the struggling artist is appropriate here. Many artists, including freelance writers, have little

security, low wages, and few opportunities for ‘broadening their horizons’. This is basically because artists outside the major commercial empires have little collective leverage. Anyone can write a novel; no credentials are needed. Associated with this exploitative situation is the belief that creative artistic work thrives on hardship: a soft secure career would shrivel the critical impulse. Logically, the same could be said of academics, but exactly the opposite conclusion is drawn. In this case, beliefs become popular because they justify the reality rather than because they explain it.

Academics can be quite fierce in their defence of academic privilege. For example, when the Australian government cut back on academic study leave (also called sabbatical), many arguments were brought to bear in protesting against this move. The arguments each emphasised why *academics* needed study leave. No attempt was made to expand the domain of privilege by arguing for example that manual workers need periodic occupational leave to recover physically and to rekindle interest, or that mothers need leave from housework and child-rearing. Study leave is seen as a special, academic privilege. To extend it too widely would be to weaken the status of academics.

The Australian academic protest against cutbacks in study leave was weak and unsuccessful. It might have had more chance if alliances had been built with other occupational groups based on demands for occupational leave for all. But building such alliances was quite at variance with the professional self-image held by academics as a ‘higher occupation’.

Status quo

The belief in this category are essentially that arrangements in academia are pretty close to optimal: a few adjustments are needed, but no fundamental changes. Beliefs here include:

- the marketplace in ideas is basically fair;
- standard teaching methods are either necessary or superior to alternatives;
- the course structure is close to the best compromise possible;
- there are no viable alternatives to the academic career structure;
- academic hierarchy is necessary for scholarly and organisational purposes;
- the division of knowledge into the disciplines is unavoidable;
- teaching and research require the employment of many full-time professional intellectuals;
- academic credentials signify meaningful achievements.

These beliefs by and large are reflections of the academic status quo. The main reason for beliefs in the status quo is that it is easier for students and academics to believe in what they are doing than to continue doing something they believe is pointless or hypocritical.

Beliefs about the necessity of the status quo are potent in deflecting challenges to standard practices. Educational innovation and experimentation are routinely blocked on the grounds that alternative methods have not worked,

cluding the structure of the tax system, the allocation of state funding (such as support for particular industries), and payment to state employees. Higher education is itself a source of privilege, and so the state has a general and sometimes specific interest in admission policies, curriculum and credentials.

How is the influence of the state transmitted to higher education? Most obvious is the role of the state educational bureaucracy. In centralised systems this bureaucracy, and sometimes top political elites, decide educational policy and transmit it downwards. In decentralised systems the educational bureaucracy’s influence is more indirect. Some of the mechanisms include:

- job opportunities within state bureaucracies for academics who work on problems central to the needs of the state, or who provide legitimisation’s of state policies and practices;
- job opportunities within state bureaucracies for graduates with particular types of training - such as traditional versions of economics;
- direct financing of organisations and individuals by sectors of the state, such as research grants provided by the military;
- establishing the social priority of certain research problems and orientations - such as research into the biochemical basis of cancer rather than reduction of the environmental causes of cancer - and lauding those academics who succeed according to the state’s priorities;
- not providing finance or licensing for higher education initiatives which are educationally experimental or politically radical.

These are some of the more overt ways in which groups within the state act to influence higher education. But more important is the role of the structure of the state itself on higher education. The organisational form of the components of the state is bureaucratic, namely based on hierarchy and a division of labour, with work handled according to standard methods of procedure. The provision of finance to higher education, the making of decisions about new institutions or about cutbacks, and the allocation of research funds: all these are usually handled through bureaucratic channels. Academia can most easily mesh with this bureaucratic system by being organised bureaucratically itself, at least at the level of administration and finance. For example, provision and auditing of funding will be much easier for state bureaucrats if they deal with academic bureaucrats rather than some other organisational form such as autocracy or participatory democracy. Also supporting the convergence of state and academic structures is the affinity of individuals high up in the respective hierarchies.

The history and structure of the state and higher education show that both of them are the result of political struggles. Rather than being functional and inevitable, the structure of higher education is continually ‘negotiated’ within a system of power in which the state is a key factor.

cated to a particular social class - such as the children of managers and professionals - or if the culture of academic life is oriented to a particular class, then higher education helps reproduce the class structure. To overcome patterns of class inequality, educational reformers try to devise programmes to encourage working class entry and success in higher education.

In all these cases, the state is one focus - virtually the only focus in centralised educational systems - for influencing the form and content of higher education. The idea of the state as 'mediator' of the influences of other groups should not suggest that the outcome is balanced in any way. The most powerful groups are the ones that have the most influence: capitalists have more influence than workers. But on the other hand, the influences on higher education are not always effective. There is quite a lot of resistance in the system. State directives may not be taken up by academic bodies. Further down the line, not all students subscribe to the dominant intellectual culture.

Specific state influences

As well as acting as a mediator, the state has particular interests of its own which often impact on higher education. The most fundamental of these interests relate to the foundations of the state itself.

As noted before, the state is founded on a monopoly over the use of what is claimed to be legitimate violence within a territory. The police exercise violence internally and the military externally (and often internally as well). Foreign military threats and internal challenges must be resisted if the state is to survive. One important role of higher education is to provide trained personnel for the military forces (especially the officer corps) and for the civilian military bureaucracy. Just as important is the development and application of knowledge for modern weapons systems and for bureaucratic management of military forces. When the earth's first artificial satellite was launched by the Soviet Union in 1957, this led to an outcry and reappraisal of science education in the United States.

The training and knowledge most useful for professional military forces must fall in a narrow domain: it must be effective against enemy forces while maintaining the control of the state internally. Methods of struggle which could be easily used by the general populace would undercut the monopoly over violence held by the state. This is one reason why 'defence' is construed exclusively in terms of professional military forces and advanced technology, and why alternatives such as partisan warfare and nonviolent resistance are seldom studied or researched in higher education.

Another key function of the state is attempting to manage the economy. Any government that fails in this task will come under threat from either internal challenges or external economic control. The state therefore has a strong interest in training and in the development and use of knowledge for expanding the economy - so long as the expansion remains regulated by the state, which needs to take its cut to survive.

The state, to sustain itself and the society's social system, allocates benefits to privileged sectors. This is accomplished in a variety of ways, in-

do not work, could not work or even that they should not work. In making these judgments, academic decision makers seldom resort to evidence, nor are they likely to allow experimental tests to be made. Rather, they rely on their own power to restrict innovation, and use beliefs about the optimality of the status quo to justify their stance.

Any fundamental challenge to the academic power system will necessarily confront the standard beliefs about the necessity and optimality of the system. It is not primarily the beliefs which sustain the system but the system which sustains the beliefs. Even so, challenges to standard policies and to the prevailing power systems need to be nurtured by alternative beliefs. Coherent frameworks, such as certain strands of feminism and Marxism, allow sustenance for challenging groups.

Furthermore, many individuals will persist in their beliefs long after events have shown their irrelevance. For these reasons struggles over beliefs can never be ignored.

I have concentrated in this account on beliefs which are common among all people in academic life. There are also quite a number of beliefs which are found among certain sectors. In these cases the beliefs reflect the interests of particular groups, and are used to promote their interests. Here are a few of these beliefs.

- Many natural scientists and engineers believe in the superiority of hard science over other disciplines.
- Many scientists believe that scientific knowledge is the only fundamentally valid type of knowledge.
- Many academics believe that academics are, as a group, ethically superior to most other occupational groups.

References

- Tom Meisenhelder, 'The ideology of professionalism in higher education', *Journal of Education*, vol. 165, no. 3, Summer 1983, pp. 295-307.
- Michael Young, *The rise of the meritocracy 1870-2033: an essay on education and equality* (London: Thames and Hudson, 1958). An amusing satire highlighting the link between formal education and privilege.

THE STATE

CHAPTER 8

Where does the money for educational institutions come from? The answer, in most cases throughout the world, is the state. Even many so-called private universities, such as Harvard and Stanford, are heavily financed by the state. Furthermore, in most countries the state provides a great deal of control over what goes on inside schools and campuses. The state thus is of key importance in understanding the power structure of higher education.

'The state' can be a fearsome topic in the hands of academics. Marxist intellectuals in particular can turn a treatment of 'the theory of the state' into a hair-raising journey through abstruse concepts and dialectical turns which at any conjuncture may succumb to the snares of bourgeois logic. Still, since the state is so important in the dynamics of higher education, it is essential to discuss it.

What is the state? In terms of familiar bodies, the state includes national and regional government and their administrative bureaucracies, the military, police, the legal system and often many industrial and service bodies such as telecommunications. The operation of the state depends on the extraction of a surplus from the economy. The economic system is either controlled entirely by the state, as under state socialism, or is regulated and partly owned by the state as under capitalism.

The foundation of state power is a monopoly over what is considered to be legitimate public violence - namely the use of military and police forces - within a territory. (Max Weber defines the state in these terms.) The administration of compulsory schooling, which ultimately relies on the use of force against resisters, depends on the use of state power.

Throughout the world, the state provides funding for most of higher education, and indeed for most formal education at all levels. The exceptions are various private institutions - funded by churches for example - and private sponsorship of particular activities in higher education, such as by corporations. As well as setting the level of financial support for higher education, some states specify details of what is done within the sector, including decisions on hiring staff and developing syllabuses.

Another key power held by the state over higher education is that of allocating the rights to supply credentials. To give degrees, an educational institution must be licensed by a body authorised by the state. This power of the state applies to private educational bodies, and thus provides a strong unifying force on educational institutions.

State funding and control of higher education are so familiar that they are not often questioned in a fundamental way. Debates concern *how* the state will be involved in higher education rather than whether it will be. To gain a perspective on the role of the state, it is valuable to look back in history to the

integrated: many different groups have an influence on decisions about education. State bureaucrats can only cut back on public resources allocated to education if they can overcome political pressure from parents and students to provide more educational services. The educational system becomes more differentiated and specialised to serve different interest groups, in particular future employers. All these different inputs reduce the direct power of the state and allow a degree of autonomy for teachers. The teachers develop a professional orientation and enter into negotiations with other groups.

What precisely do the various groups want out of the higher education? This depends in part on whether the group is state bureaucrats, members of professions, capitalists, local communities, trade unions or academics themselves. But there are some general things all such groups have an interest in.

Personnel. Lawyers, doctors, administrators, educators: all these and others are licensed, and to some degree trained, in academic institutions. The training of 'personnel' - the 'production' of people trained for occupational niches - has always been a key role of higher education. The question is, what 'products' are to be produced? Some groups are well serviced, such as the long-established professions of law and medicine, whereas other groups, such as working class communities, are not.

Socialisation. Students encounter not only training but also an intellectual and social climate. All this encourages adoption of particular sets of attitudes and actions. Socialisation of students can aid different groups in society. This is most developed and deliberate in education of professionals such as doctors and engineers, which can include clinical supervision, instruction in professional ethics and work experience.

Elite universities foster in their students a sense of superiority, of comfort in being in a commanding position. This is most useful in providing recruits to top posts in government, business and the professions.

Contrary to this, some students are stimulated to become socially critical. This may be welcomed or deplored, depending on what is being criticised.

Knowledge applications. Some of the knowledge produced in academic institutions has direct applications, for example to improve managerial control or develop new weapons for the military. The groups concerned about such applications have a direct interest in influencing higher education to preserve or expand the production of knowledge useful to them.

Legitimations. Rather than practical application, some knowledge is more useful to justify particular policies and practices. Many socially important systems of ideas - such as the theory of the free market in economics - are developed, elaborated, supported or challenged within academia. Since modern social systems depend to a significant extent on popular acceptance, ideas can be used by different social groups to sustain or undermine social arrangements. Therefore these groups have an interest in what ideas are produced or accredited in academia.

Social reform. Higher education can be a base for initiating or restraining social reform. If the entry to higher education is preferentially allo-

ing of the lives of the young in a specific institution - was much more useful to the state, at least if the schooling was under the overall control of the state. Like socialisation and nonformal education, the schools promoted learning, but schooling was more oriented to the needs of the state. Furthermore, one important purpose of schooling was the promotion of patriotism.

The state takeover of formal education (III)

In any society in which groups stand to gain by inequitable social arrangements - whether this is male domination, feudal hierarchy or state power - knowledge can be used as a social resource in power struggles. Under the feudal system, systematic learning was restricted to a small elite, and the mass of the population was kept in its place partly through ignorance. Likewise, church elites used their privileged knowledge to justify their exalted position. In an industrialising society among other industrialising societies - the situation during the development of the modern state system - mass literacy coupled with a more highly educated elite became increasingly useful for the success of industrial and military competition with other states, including in the administration of the state itself.

All sorts of groups thus had an interest in using and controlling knowledge. In the early days of the modern state, the whole process of knowledge production and transmission was too crucial to be left alone. Hence there was a battle to control the institutions to handle this process. The result was the state takeover of educational systems, and the extension of these formal systems to ever wider sections of the population.

Higher education and the state

So far I have described the relation between the state and educational systems generally. How does higher education fit in? As a locus for study, higher education is at the top of the educational pyramid. (Why else would it be called *higher* education?) Entry is restricted to those who have succeeded through primary and secondary studies. In earlier centuries higher education was the preserve of a tiny elite. As an elite training ground, higher education served to reproduce the elite. When controlled by the church in earlier centuries, universities produced clerics. This was one source of frustration to rising classes, such as capitalists, members of other professions and top state bureaucrats, who wanted people trained for their purposes and wanted opportunities for their children. The state takeover of higher education made it possible for training to be broadened and reoriented to the needs of newly emerging powerful groups.

As well as providing training, the other key role of higher education is the production and accrediting of knowledge.

The state as mediator

Using Archer's model, the state can be seen as a mediator of the various groups that try to influence education. The educational system is multiply

time when formal education was not under its aegis. It was not so long ago.

The state takeover of formal education (I)

Margaret Archer has developed a very sophisticated and illuminating model for understanding the large-scale dynamics of educational systems. Her sociological model combined with historical analysis tells how the state took over formal education, and also tells a lot about why different types of educational systems have developed as they have since the state takeover.

Archer's discussion concerns those educational systems that developed within particular countries primarily in response to internal power struggles rather than being imposed for example by colonial regimes. She has looked in detail at the educational systems of England, Denmark, France and the Soviet Union.

Centuries ago, education was privately controlled in these countries. Typically the owner and controller was a church, such as the Church of England. In Archer's terms, education was mono-integrated: entirely under the control of and at the service of a particular sector of society such as the church. Other groups in society had no say over the form and content of formal education. Teachers were entirely dependent on the controller and thus could not initiate change internally.

Mono-integration was useful to the controlling body, though expensive. The owner maintained its monopoly in various ways, including teaching and propagating ideas which legitimated its monopoly and excluding potential critics from instruction.

For other groups mono-integration was frustrating. State bureaucracies and capitalist enterprises, which were gaining in strength, did not obtain graduates trained to serve their needs. Likewise, parents seeking secular training to promote the career interests of their children were frustrated by the restricted educational offerings.

According to Archer's model, the most powerful groups opposing mono-integration used two strategies to overcome it. The first strategy was restriction: putting political controls on the educational system which challenged the single controller. The group best placed to implement the restriction strategy was the political elite. Since the state was the key avenue for the exercise of political power, the strategy of restriction led to state control of educational systems. This occurred in France and Czarist Russia.

The second strategy used to overcome mono-integration was substitution: the development of a parallel system of education and the gradual replacement of the mono-integrated system. The group best placed to implement this strategy was the economic elite. But because of the importance of state economic resources, both the previous controlling group and the challenging group sought state intervention to serve their ends in the struggle to control education. The result once again was state control of formal education. This process occurred in England and Denmark.

The two strategies led to two different types of educational systems. The strategy of restriction led to a centralised system in which the state exer-

cised control over many detailed aspects of education, including staffing and curriculum. In the Soviet Union educational policy was determined exclusively at the top political levels and then implemented by regulations which were supposed to be followed in detail.

France's educational system is not quite so centralised, but is basically similar. The main mechanism for educational change in such centralised systems is political manipulation. Groups - whether teachers, professional groups or employers - that want to promote changes in education must proceed by trying to influence elite policy makers in the state.

The strategy of substitution led to a decentralised system. The state provides financial support for education, but political control is spread among several groups, including state bureaucrats, teachers, employers and parents. In decentralised systems such as in England and Denmark, political manipulation - lobbying or applying pressure for change from the top - is only one way to promote change. Another way is internal initiation: introducing change within the system, as when teachers promote new types of courses or teaching methods. A third way is external transaction, which involves negotiations between groups inside and outside the educational system. An external transaction might involve corporate funding for a university department in exchange for academic study or research useful to the corporation.

This then, in very abbreviated form, is Archer's model for the dynamics of large-scale educational systems. What can the model tell us? It shows that present educational arrangements are of historical origin, rather than being some sort of timeless necessity. An understanding of history is very useful in showing that educational systems are a result of political and economic struggles. The result is not necessarily optimal or functional: it is an accommodation to the political and economic resources of different groups. In particular, education is structured to serve the most powerful groups in society. Finally, Archer's model shows the importance of educational structure itself for the dynamics of educational change. Whatever system becomes established is very hard to dislodge.

The differences between the political control of educational systems in different countries are considerable. In centralised systems the state - usually a state educational authority - makes many detailed decisions about the form and content of education, including details of curriculum and appointments. Teaching staff have very little control. In decentralised systems the main official role of the state is to provide finance. Detailed decisions are made at lower levels, either at the level of the school or university, or by groups of teachers or individuals. In the decentralised systems the state still has ultimate power, but has chosen to delegate that power through various structures. The different relations between states and educational systems have a large impact on the possible avenues for change, as Archer's model shows. In this book I mainly deal with the politics of higher education in decentralised systems.

The state takeover of formal education (II)

Archer's model looks at the politics of educational systems assuming

the existence of a set of social structures: the state, the church, capitalism, etc. But why did education take the form of mass compulsory schooling? Why did the state end up administering this sort of educational system?

The point of these questions is that mass schooling is not the only way in which learning can take place. Prior to mass schooling - namely at most a couple of hundred years ago - most learning took place via day-to-day experience. People learned about things and how to do things through socialisation. Children learn language, rules of behaviour, values and attitudes in this way.

Another way in which learning occurred was through nonformal education which occurred in households, in apprenticeships in guilds, and in the church and community. The purpose of households and guilds was not primarily education, but participation in them had a strong educative component.

In the Europe of several centuries ago, socialisation and nonformal education were quite adequate for most purposes. Why then did the state not rely on these modes of learning? Why was mass credentialed schooling introduced?

To answer these questions, it is necessary to look at the rise of the modern state, which took place in Europe most dramatically after the French Revolution. The previous social system, feudalism, was based on relatively independent and self-sufficient fiefdoms, in which rigid social hierarchies and traditions held sway. Feudalism began to break down due to the development of trade in both goods and ideas. Also important was the rise of industry organised in the form of capitalism. The new locus of political power superseding the feudal system was the state system. Rather than relying on the traditional hierarchies of aristocracy and church, the state built itself on administration through hierarchical systems based on formal rules and a division of labour: bureaucracy. To provide revenue for the state, in particular the new standing army, taxes were imposed. The administration of taxation became a prototype for state bureaucracies.

For the state to gain power, it had to break down the traditional closed systems of the household, the feudal estate, the church and the guild. These traditional systems had no inherent incentive to serve the interests of the state. Several developments weakened the traditional systems. One was trade and industry, which undercut feudal self-sufficiency and also provided pressures on and for people to move out of the estates. Another was military confrontation between developing states, which put a premium on development of professional, bureaucratised military forces. And not least was the developing popular challenge to feudal oppression, which was most explosively released in the French Revolution. The budding state provided an avenue for social forces wishing to challenge the traditional feudal institutions.

In the early 1800s in Europe and America, the development of industry made it valuable for learning to be expanded and extended to a wider section of the population. It is possible that the traditional methods of learning, by socialisation and by nonformal education, could have sufficed. But they did not serve the interests of the state, since they reinforced the traditional institutions of the household, guild, church and community. Schooling - systematic mould-