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Elites and Suppression

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To speak of 'suppression of intellectual dissent' usually assumes the following context. First, there is a power structure of some kind, with some groups having vested interests in their power and privilege. Such groups are responsible for most suppression. Second, there is some set of ideas or practices from which intellectual dissent is possible. Third, there is some alternative source of power, or other potential threat to the powerful and privileged groups, to which the dissent may appeal.

For example consider a scientist who speaks out about potential health hazards to workers on the job. In this case the powerful group comprises the corporation owners or management, who sometimes will have an interest in not taking action against the hazard, particularly if this is a threat to profits. The prevailing set of ideas from which dissent is possible might include responsibility of management for worker safety, or a public expectation of such responsibility. And an alternative source of power might be workers and trade unions who could take action to reduce the hazard. In speaking out, the scientist potentially threatens the interests of management, invokes implicitly or explicitly concepts of responsibility for the hazard, and potentially appeals to the power of workers and unions to take action against the hazard.

This simple framework can be used to analyse many cases of suppression. But to be useful in getting at the roots of suppression, a more detailed analysis and classification is required. That is my aim in this chapter. I look in turn at three sources of suppression : corporate elites, bureaucratic elites and professional elites. In each case there are characteristic types of suppression, types of dissent, and sources of support for the dissent.

To characterise suppression in the manner done here is to make a number of theoretical assumptions. Indeed, the terms 'suppression' and 'intellectual dissent' reflect a particular way of viewing the world in which the exercise of elite power often constitutes suppression and in which freedom of speech against elite frameworks becomes dissent.

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Differing from this is the point of view of most elites who see their organisations or professions operating on the basis of standard principles or procedures such as profit, efficiency or service. They may perceive those who speak out or act against the interests of elites as malcontents, as naive or misguided idealists, as people lacking professional standards, or as malevolent opponents. Since elites seldom question the goals or procedures of their organisations or professions, 'suppression' for them typically is a nonexistent or seldom-used category.

The differing views of elites and dissidents reflects a more general point : the meaning of social reality does not present itself unambiguously or uniformly, but rather is socially constructed.[1] Social meanings are created and negotiated as part of ongoing social interaction. To select and use a set of concepts—whether 'suppression' and 'dissent', or 'bureaucratic efficiency' and 'professional conduct'—is to use ideas as tools for political purposes.[2] This politicising of ideas is impossible to avoid. In analysing here the phenomenon of 'suppression' in the context of the structural role of corporate, bureaucratic and professional elites, I have consciously adopted a framework which is selectively useful for those who would question business as usual in these dominant social institutions.

Corporate elites

Owners and top managers in corporations have a strong interest in profits, in market share and in corporate expansion. To ensure maintenance of profits and growth, most corporations proceed on the basis of standard operating procedures and generally understood assumptions about goals, methods and rationales. Many of those who dissent from accepted policies and practices and thereby threaten profits, corporate image, or commercial prospects, thereby become potential targets for suppression.

In most corporations, suppression of dissent is so usual and expected as to be unremarked. Anyone who questions policy in a fundamental way—for example by refusing to carry out instructions—is likely to suffer quick dismissal, or perhaps reassignment or blocking of promotion. In corporations producing military components, for example, openly expressed opposition to military production such as through distributing antiwar leaflets, is not likely to help one's career ! Since most workers value their jobs and their career prospects, the likelihood of suppression is a strong disincentive to dissent.

In some companies—especially in smaller firms in the more competitive, 'free enterprise' sectors of the economy—a certain degree of dissent is tolerated or encouraged. This is seen as 'innovative thinking' which can provide a competitive edge. But even in this case tolerance of unconventional ideas has strict bounds : questioning which threatens profits is not allowed. In larger firms, action which exposes failings of management can lead to suppression irrespective of the benefits of dissent for profits.

Dissidents in corporations seldom have an independent power base, and often see their options as either remaining in the corporation and remaining

Since a bureaucracy is a power structure, it can be expected that power struggles will occur. Sometimes these may be between competing elites, but of more interest here are challenges from the bottom, which can be called bureaucratic oppositions. Any person or group within a bureaucracy which challenges from below the actions, privileges, rights or status of bureaucratic elites constitutes a bureaucratic opposition. One response to such challenges is suppression.

Intellectual dissent is almost always a threat to bureaucratic elites. A bureaucracy is analogous to an authoritarian state in its hierarchy, its imposed uniformity of perspective, and in its intolerance of dissent. Authoritarian states can use, if necessary, violent repression to squash dissent. Most bureaucracies are different in that only nonviolent means for containing dissent are permissible or available. That means suppression : dismissal, blacklisting, legal action, and blocking of appointments, promotions, funds or initiatives.

It is useful to distinguish two sorts of dissent from within bureaucracies : dissent which threatens the organisation as a whole, and dissent which only threatens the position of bureaucratic elites. For example, a member of an intelligence agency who covertly provides information to foreign governments is usually considered a threat to the state as a whole, and branded a spy and traitor. By contrast, a member of an intelligence agency who exposes misuse by the agency's director of power or funds—on an issue which is of no particular interest to foreign governments—provides a threat only to the director and associated cronies. The dissident in this case threatens the bureaucratic power structure of the agency. This sort of dissident may also be called a spy and traitor, but only as a means for helping suppress the challenge to the bureaucratic power structure.

Suppression to protect bureaucratic elites is common in as many areas as bureaucracy is common : government departments, trade unions, political parties, corporations, and many voluntary groups. Suppression by corporate elites can be seen as one special case of suppression by bureaucratic elites, since most corporations are organised bureaucratically.

One example of a bureaucracy in which top-level control is rigorously enforced and dissent not tolerated is the Leninist political party. Under so-called 'democratic centralism', all decisions made at the top of the party are binding on everyone in the party. Dissidents are expelled. When such parties have gained national power, as in the Soviet Union, the ruling communist party penetrates all other power structures, such as the state bureaucracies, in order to enforce adherence to the party line and acquiescence to the party elites.

Another example of a rigid bureaucracy is the military. Indeed, the military is a model bureaucracy, and in many Third World countries bureaucratisation of the economic and political system is carried out by

ruling military elites. Within military forces, dissent is harshly repressed, and obedience is encouraged by training and by rewards for loyalty.[7]

The idea of the 'captured bureaucracy' should be mentioned here. In many cases corporations through their economic, political and ideological influence are able to influence state bureaucracies to serve corporate interests. The case of Australian state forest services is one example. Essentially the 'captured bureaucracy' becomes the pliant tool of the relevant industry, a corporate ally within the state sector.

Not all cases fit the captured bureaucracy model. Nuclear power, for example, has been almost entirely a creature of states rather than corporations. In most countries it has been developed, promoted and controlled entirely by state bureaucracies. Even in the United States in which state control of industry is ideologically anathema, considerable state pressure was necessary before corporations would enter the nuclear industry in a big way : legal protection against claims from major nuclear accidents, subsidies from the military sector and other financial incentives. Admittedly, once General Electric, Westinghouse and other large corporations became deeply involved in the industry, they have been strong proponents of it and have opposed dissent. But the primary driving force behind nuclear power remains the state. And it has been within state bureaucracies where much suppression of dissent has taken place, for example the harassment and attempted discrediting of John Gofman and Arthur Tamplin of the former Atomic Energy Commission whose figures on likely deaths from given radiation exposures were too high to please AEC elites. Most funds for nuclear research have come from the government, and funds are simply not available for nuclear critics, and may be withdrawn from those who become even mild critics, such as Gofman and Tamplin were originally.[8]

Corporations are only one actor in the overall power structure. In some areas corporations are the dominant influence, and spread their control via captured bureaucracies. In other areas state bureaucracies are dominant, and may spread their control through 'captured corporation', as in the case of many firms producing military goods. And often the relationship between different dominant bureaucracies, especially when it comes to challenges made from below, is a symbiotic one. Indeed, one good way to analyse the locus of vested interests is to look at cases of dissent and suppression and to see what groups are willing to support the dissent and oppose the suppression.

Only in special cases is dissent within a corporation defended by government bureaucracies, or vice versa. The most common base for support of dissent is the general public, often via the media. The phenomenon of 'whistle-blowing'—revealing abuses within large organisations to the public—occurs precisely because the media and its audience is a power base independent of bureaucratic elites. The challenge is a potent one. Bureaucracies operate on a close control of information, lack of open discussion,

and internal determination of priorities. Whistle-blowing is an immediate and direct challenge to bureaucratic control over information and decision-making.

All the methods used by corporate elites to prevent and restrain dissent are also used by non-corporate bureaucratic elites : selective recruitment and advancement, uniformity of ideas, and suppression of dissidents. Also as in the case of corporate dissent, opposition to bureaucratic activities is greatly encouraged by the existence of a social movement. For example, the 1980s peace movement has not only stimulated widespread public questioning of government policies and military activities, but also encouraged dissent from inside the military among soldiers and even generals.

Professional elites

Bureaucratic elites owe their power to their position within a formal hierarchy. A somewhat different but often overlapping basis for power resides in expert knowledge used within a framework collectively controlled by professional. Those who wield such power I call professional elites. Before describing their role further it is worth looking at ideas about a 'New Class'.

According to a classical Marxist analysis of class in modern capitalist society, the two key classes are the capitalist or ruling class and the working class or proletariat. (Other groups fall outside this categorisation, such as small independent farmers, who are similar in role to peasants, and shopkeepers, part of the so-called petite bourgeoisie). In recent years quite a few socialist scholars have looked at this framework and decided that it is inadequate to take into account the role of those people and groups which owe their position and collective power to their knowledge and intellectual skills : managers in corporations, government bureaucrats, doctors, lawyers, teachers, and so forth. Those in these areas seldom own much capital : they do not owe their power to ownership of the means of production. But neither are they simply characterised as workers who sell their labour power. Managers, administrators and professionals may be employees, but they are also bosses or in other ways in a powerful position in relation to subordinates or clients. Their collective economic and political interests are different from those of the capitalists and also from those of the traditional working class.

This class of intellectually skilled workers has been called the 'intellectual class', the 'New Class' and the 'professional-managerial class'[9]. Normally the distinguishing trait for this class is taken to be involvement in intellectual work rather than manual work But in my view whether one does intellectual or manual work is not a ready indication of one's power vis-a-vis others. Many intellectual workers, such as bottom-level bureaucrats, have as little independence and power over others as do assembly line workers. Indeed, bottom-level clerks are essentially the process workers of 'factories' that deal in papers and files. For this reason, I think the distinguishing characteristic of what I term the 'administrative class' is having the power to influence the

conditions of life for others, Those reasonably high up in bureaucracies set the agenda for lower-level employees, and also may set or execute policy which affects clients. Doctors, lawyers and other professionals collectively set the framework and individually make the decisions in which medical treatment and other activities take place. The boundary of the administrative class is necessarily fuzzy, but the criterion of power over the lives of others by setting the frameworks and individual requirements for action can still be a useful one.

Within the administrative class, I distinguish bureaucratic elites and professional elites. Bureaucratic elites owe their power primarily to position in a formal hierarchy. Their role in suppression has already been discussed, Professional elites owe their power to special knowledge and skills, both individually and collectively. Doctors for example are individually trained, and the medical profession as a whole maintains a near monopoly on formal treatment of ill health. Nonprofessional care, however effective in practice, is usually ignored, downgraded and uncertified. Medical practitioners collectively control many aspects of their own work situation : entry requirements, salaries, advancement to higher posts (such as hospital superintendents), protocols for patients, hours, etc. Medical decisions within the profession-about methods of treatment for example—are decided to a great degree on the basis of knowledge, skills and intellectual argumentation. The role of numbers or violence is minimal. In these ways doctors, like others among the professional elites, have considerable power which is not available to manual workers or to low-level bureaucrats or indeed low-level professionals. Cleaners, clerical workers and nurses have little power compared to hospital administrators and to most doctors.[10]

Professional elites use their specialist knowledge in several ways to gain power. The monopolisation of a body of expertise serves to exclude both laypeople and other expert groups.[11] It also serves to legitimate a hierarchy within the profession, in which professional elites have the most power and privilege. Junior professionals and apprentices, in aspiring to elite positions, are thereby encouraged to conform to the prevailing professional standards and practices,

Professional elites also use their knowledge to gain power within wider institutions, for example to influence government policy. Indeed, such influence is essential in establishing and maintaining professions via educational certification and state regulation. In their interaction with corporations and the state, both the professionals and their knowledge are inevitably politicised. To gain access and influence, professionals develop political skills, and mould their knowledge to political ends. At the same time, the advice of experts is used by corporate and bureaucratic elites to justify pre-decided courses of action. The esoteric knowledge of the professional legitimises the exclusion of outsiders from the decision-making process.[12]

quiet, or speaking up and getting out. For example, when the three nuclear engineers Dale Bridenbaugh, Gregory Minor and Richard Hubbard, who worked for General Electric in the United States, decided that they wished to speak out about reactor safety hazards, they did this at the same time as they resigned from the company in 1976.

Only a tiny fraction of corporate employees actually think seriously of openly dissenting from standard policy and practices. In most corporations the reigning orthodoxy of the corporate view is largely unquestioned. In the rubber industry, the social uses of rubber are assumed to be acceptable. In the housing industry, standard house designs and construction methods are mostly unchallenged. There are several reasons for this, besides overt suppression. First, people who decide to enter a particular occupation usually are sympathetic to its function and aims. Vegetarians seldom become meatworks employees.

Second, once working for a corporation or in an occupational field, a selection process operates to encourage those most committed to the activities of the enterprise and to filter out those with reservations. Those who are highly committed tend to work harder, to get on better with bosses and to have ambitions to rise in the occupation. To get ahead, it greatly helps to really believe in what one is doing, whether selling insurance or manufacturing cigarettes.

Third, inside most corporations there exists a standard view of reality, a basic perspective which pervades all discussions and activities. Within the automobile industry, for example, it goes without saying that cars enhance mobility, that the solution to excess traffic is not less cars but more roads, and that advertisingon the basis of cars' power and glamour is acceptable. The standard view is usually so deep-seated that it is not even recognised as a set of assumptions. As a result, the very idea of dissent in any fundamental way from the goals of the corporate enterprise is almost unimaginable for most workers. And this is also why those who do dissent are seen as such dangerous threats : dissenters could potentially puncture the corporation-serving hegemony over discussion.

While the corporate view of reality may seldom come under threat from employees, disagreement from the outside is more common. This may come from people in government, in universities, or from independent groups. How can corporations prevent or restrain such dissent ? The most effective way is to ensure a widespread acceptance of the corporate view of reality. One way to do this is by providing benefits to those who support the corporate view : jobs, funding, contracts, etc. Government bodies meant to regulate the industry can be turned into faithful partners and academics can be brought on side by providing contracts, potential jobs and access for research.[3] The media can be provided with advertisements and stories. As a result, many industries have gone for long periods without facing any fundamental criticism, such as the automobile industry, the pharmaceutical industry and the insurance industry.

Forestry in Australia is an example of an area in which industry perspectives are dominant throughout most of the relevant government and university bodies[4]. The forest industries—timber, pulp, woodchip and other industries based on forest products—maintain strong links with government forest services and research organisations, and with university forestry departments. Avenues for maintaining the links include professional and commercial organisations, clubs, joint conferences, informal networks of communication and consultation concerning appointments.

One example of the link between personnel in the forest industries and forestry researchers is the international organisation called the Concatenated Order of the Hoo-Hoo. Members of this social and 'service' organisation in Australia are "limited to male persons of the full age of 21 years, of good moral character and engaged in forestry, sawmilling, the manufacture of timber products, wood pulp and insulation materials derived from forest products, officials of the forestry service, forest commissions and boards, officers of timber organisations and makers of the allied industries." Despite its peculiar name and associated rituals, the Hoo-Hoo plays an important role not only in generally promoting the forest industries but in helping attune forest regulatory agencies and certain forest researchers to the interests of the forest industries.

The availability of jobs is a strong influence in maintaining commitment to the industry perspective. For example, quite a few leading figures in the government forest services have on retirement taken positions with forest industries. An interchange of personnel between industry, government and university is common in many fields besides forestry, such as nuclear power, armaments and agriculture.

Also important is the closed-shop nature of most recruiting into government forest services. Recruits are preferred to be from special forestry schools and graduates to be from one of the two university forestry departments (Australian National University and Melbourne University). These are the places where the influence of the forest services and industries is greatest.

Illustrating this influence, the electoral committee formed in 1974 for the filling of the post of professor and head of the Department of Forestry at ANU included a representative from the Australian Institute of Forestry and another from the heads of the forest services. In addition, the committee's terms of reference included seeking the views of the Commonwealth Forestry and timber Bureau, the Australian Institute of Foresters and the heads of the state forest services—but not for example any conservation groups.

In many Australian states, the link between the forest industries and the government forest services operates through the structure of the state and federal government bureaucracies. The state cabinets appoint senior officials in the bureaucracy, including the departmental head responsible for forestry.

Due to the political influence of industry in lobbying, creating jobs locally and supplying election funds, most departmental heads are chosen to be acceptable to industry.

As a result of the influence of the forest industries, the basic orientation of the government forest services and many forestry academics is to promote the exploitation of forest resources for the purposes of production and profit. This orientation carries over into government and university forest research, in which the criteria for valid and useful knowledge, and how it may be obtained, are influenced by the interests of the forest industries. In other words, the paradigm for many forest researchers is, to put it quite baldly, based around ensuring that forests exist primarily for the forest industries.

Corporations thus attempt to ensure that outsiders accept the corporate perspective. But sometimes dissent crops up. Corporate elites may try to suppress such dissent, but it is not so simple as suppressing dissent from employees. Somehow pressure must be brought on the outside critics.

When the outsider works for a government, university or other body which subscribes to the industry view of the world, then the task of suppression is straightforward : apply pressure on the dissident's boss to have the activity stopped. Sometimes it is not even necessary for any pressure to be applied : the boss may subscribe to the industry perspective and take action quite independently.

How often overt pressure is applied is hard to say, since it is seldom publicised, and often the contact is by word of mouth rather than in writing or other permanent form. Two documented examples are the actions taken by Bayer and by Velsicol Australia after John Coulter had spoken out in a way critical of their corporate interests.[5]

Because of the powerful influence of corporations, open dissent in many areas comes from those on the periphery, outside the direct influence of the industry. In the forestry area, I have been informed of a considerable number of cases of suppression of people who had voiced dissent on the inside, but most of those suppressed are hesitant to have their cases publicised. The possible result of gaining a high profile critical of prevailing forestry practices or ideology would be a virtual blacklisting from many jobs in forestry As a result, many of those who have openly challenged forestry interests are not directly employed in the forestry area : critics Richard Routley and Val Plumwood are professional philosophers, Peter Rawlinson is a zoologist and Philip Keane is a botanist.

The greatest threat to industry arising from dissent usually comes when a social movement develops which is in some way critical of industry activities. The environmental movement has posed such a threat to many industries engaged in environmentally damaging practices or producing environmentally damaging products. The peace movement is a threat to military industry. And the consumer movement poses a threat to many corporate activities.

When Ralph Nader in the middle 1960s exposed shortcomings of automobile design and production, General Motors tried to discredit Nader, and arranged for him to be spied upon to find ways to do this. Significantly, Nader was not employed by an automobile-related industry, and so the immediate avenues for suppression were not available. Once an entire consumer movement was more firmly established, not only did many people on the outside question corporate views, but this questioning led more corporate employees to speak up. With a potential power base outside the corporation—the independent consumer movement, plus allies in government, universities and the media—insiders have more leverage with their criticisms.

To summarise : Suppression of dissent within corporations is routine. And in most cases dissent does not arise in the first place, because of employee self-selection, peer pressure and the internal hegemony of the industry ideology. Dissent by outsiders often is inhibited also, by industry influence via jobs, funding and perspectives in government, universities and the media. When dissent by outsiders does occur, pressure on the dissident's boss—if the boss does not autonomously take action—may suppress it. But this sort of suppression is less successful once a social movement develops which can sustain critical perspectives and encourage dissent on the inside as well.

Bureaucratic elites

Suppression by corporate elites to protect profits and market shares fits reasonably well with a traditional Marxist analysis of capitalist society, in which the power of the ruling capitalist class depends on its control over the means of production. But there are other sorts of suppression which do not fit so nicely within this framework. Suppression by bureaucratic elites is one such type.

Bureaucracy is a way of organising social interactions. It is characterised by hierarchy, a specialised division of labour, rules describing the duties and rights of members, standard operating procedures and impersonal relations between staff. In a bureaucracy, individuals become interchangeable parts possessing uniform, circumscribed functions.

Bureaucracy is typically seen as a way of organising people for the purposes of administration. But this perspective hides much of the dynamics of bureaucracy. It is much more fruitful to look upon bureaucracy as a political system.[6] People at the top—bureaucratic elites—have the greatest power over the organisation's policy, initiatives, internal decision-making and design of the organisational structure itself. People at the bottom—the rank and file—essentially do as they are told. Opportunities for popular participation in decision-making in bureaucracies are very limited. About the most that can be hoped for is that the bureaucratic elites may listen to or solicit opinions from the rank and file. But the elites do not have to act on the basis of opinions from below. In a bureaucracy, information flows up the hierarchy and instructions flow downwards.

porate elites and bureaucratic elites, most professional elites were slow to act on the issue.

What finally broke open the case was publicity. Media coverage, especially of thalidomide babies, stimulated public pressure that governments could not ignore. The thalidomide case illustrates well the important role of popular opinion and popular challenges in opposing the interests of elites. Dissidents—in this case mainly medical professionals and researchers—played a vital role in puncturing the top-level silence about the hazards of thalidomide and providing the basis for public awareness and concern. The long rearguard action by the companies to limit payouts to thalidomide victims was sustained partly because ongoing court action prevented full public discussion.

Velikovsky.[20] In 1950 the book *Worlds in Collision* by Immanuel Velikovsky was published. In this and later books, Velikovsky challenged orthodox views on the history of the earth and the solar system, suggesting that planetary near-collisions occurred within the past several thousand years. Velikovsky's ideas were vehemently opposed by portions of the scientific community, especially certain of its elites. Vicious reviews of *Worlds in Collision* were published by scientists who admitted they had not read the book. Scientists mounted a campaign to boycott the book's publisher. A few supporters of Velikovsky lost their jobs. For many years any sympathetic mention of Velikovsky's ide s in the scientific literature was strictly taboo. Periodically attacks on Velikovsky by various scientists were made; replies were not published.

The attack on Velikovsky's ideas certainly was not instigated by corporate elites, who had no particular interest in the reigning ideas in the history of ancient civilisations or of the solar system. Indeed, a few industrial scientists have provided some of the rare sympathetic discussions of Velikovsky's ideas by working scientists. Similarly to corporate elites bureaucratic elites have had no particular involvement in the opposition to Velikovsky's ideas. This has come almost entirely from scientific elites.

Velikovsky's ideas are a challenge to scientific orthodoxy. Ideas which challenge the established framework of ideas and set of practices—the current scientific 'paradigm'—are almost always resisted by working scientists.[21] Velikovsky's ideas are particularly threatening because they are interdisciplinary to an extraordinary degree, involving historical analysis with implications for astronomy, geology and anthropology as well as historical disciplines, Such interdisciplinary ideas challenge the exclusive judgement rights claimed by specialists over the development of academic disciplines. What natural scientists would want to allow historical analysis to be included as an essential part of their discipline? Eminent astronomers and astrophysicists such as Harlow Shapley and Donald H. Menzel were prominent in the early opposition to Velikovsky's ideas. They apparently considered

any research work offering potential support to Velikovsky's ideas to be off limits. For example, in 1960 a Sydney University professor of physics, V. A. Bailey, then totally unaware of Velikovsky, published research on the existence of net electric charges on planetary bodies. Menzel asked Bailey to revoke his theory since it was hindering efforts by Menzel and others to discredit Velikovsky.

It is difficult to explain the response to Velikovsky solely as a consequence of the behavioural norms of the scientific community or of collective commitments to scientific knowledge frameworks. Part of the explanation seems to be the popularity of Velikovsky's ideas, and the fact that Velikovsky was not a professional scientist. Challenges to scientific orthodoxy from within the scientific community often can be ignored. At most they pose a threat to the internal power structure of science. But challenges to scientific orthodoxy from outsiders, from 'amateurs' are another matter. Most are simply dismissed as being the work of 'cranks' and ignored. But when publicity is obtained, the power and prestige of scientists vis-a-vis the public is threatened. *Worlds in Collision* in 1950 was a best-seller, and the basic ideas were presented in *The Reader's Digest*. Such popularity was a serious threat to the professional control over the ability and methods for proposing and publicising theories. Popular involvement of any sort in the assessment of scientific theories is not in the interests of scientific elites.

Some of the most vocal and consistent opponents of Velikovsky have been well-known popularisers of science, including Martin Gardner, Isaac Asimov and Carl Sagan. These same people, interestingly enough, have themselves been involved in highly speculative scientific theories or science fiction. It may well be that popularisers of science have a vested interest in the ultimate sacredness of professional science and its monopoly on acceptable ideas about nature. The popularisers can then act as interpreters for the professionals, communicating the sacred word to the awestruck masses. Outsiders like Velikovsky whose ideas are directly accessible to the public are as a result often reviled by popularisers.

Wind power. By use of a windmill or aerogenerator, the power of the wind can be used to pump water or generate electricity, for example. Wind power is a renewable energy source. It can be used for small, medium and large-scale power production, but even a large-scale aerogenerator produces only one thousandth the average power of a large coal or nuclear electricity generating unit. Wind power, like other small-scale renewable energy sources, is not especially attractive to large eorporations or government bodies involved in producing electricity and electricity-generating equipment, Corporate and bureaucratic elites prefer energy sources which can be monopolised for profit or bureaucratic expansion. And professional elites prefer energy sources which require the attention of experts. Nuclear power requires nuclear scientists and engineers, massive corporate investment, and heavy

government involvement. Wind power potentially could be controlled by these or similar elites, but it also has the potential for being used by individuals and small communities.

In Australia, dominant corporate interests have shown little interest in wind power. Small companies which might be involved in constructing components for aerogenerators are more likely to be enthusiastic. But such small businesses have little pull with bureaucratic elites who hold the greatest control over electricity supply. In Tasmania, the Hydro-Electric Commission prefers nothing but hydroelectric schemes, and is a political empire of its own within that state. In other states, electricity authorities mainly use coal for electricity production, supplemented by oil and gas. Most have not been very responsive to the idea of wind power, and have been reluctant to allow independent producers of wind power to gain a reasonable price for electricity provided to the grid.

Opposition to wind power is also found among most scientific and technological elites, such as the CSIRO Executive and Institute Directors and the members of the National Energy Advisory Committee. Elite scientists mostly prefer the centralised methods of electricity production which are favoured by corporate and bureaucratic elites. CSIRO elites since 1982 have gradually shut down all wind power research under their control.[22] Funds provided by the National Energy Research Development and Demonstration Council for wind power research and development have been small compared with traditional technologies.

Support for wind power has come partly from scientists and engineers in middle-ranking positions—such as Mark Diesendorf and Hugh Outhred—and also from a wide-ranging collection of supporters including many farmers, amateur technologists and people searching for an alternative lifestyle. For example, in 1983 there were over 500 subscribers to *South Wind*, the journal of the Australasian Wind Energy Association. The underlying support for campaigns by the most active promoters of wind power is provided by general community sympathy for renewable energy sources.

Fluoridation.[23] Some corporations have an interest in fluoridation Aluminium companies are able to improve the image of their worst environmental pollutant, and manufacturers of sweets support fluoridation since it shifts attention away from the role of sugary foods in tooth decay. But the key forces behind implemented fluoridation programmes have been the dental and medical professions, especially professionals in academia and in state bureaucracies. Fluoridation is a prime example of the medical approach of a 'magic bullet'—a wonder drug or other professionally controlled intervention into the body—as a solution to health problems. Approaches involving redesign of the environment (better woking conditions, different systems of trsnsport), nutritional programmes designed to prevent disease, home birth, promotion of exercise, and restraints on the production and distribution of chemicals, are not favoured by the medical profession as a whole, since

these and other similar approaches remove the necessity for a great deal of professional medical activity and undercut the monopolies on knowledge and treatment which benefit medical elites.

Only in some countries have dental and medical elites supported fluoridation. Europe is largely unfluoridated, while Australia and the US are two of the most highly fluoridated countries. In the 1940s and 1950s when fluoridation was first proposed and introduced experimentally, a few individual dentists and other figures promoted fluoridation and tried to mobilise professional and state support for their position. The professions as a whole have generally fallen in line with whatever stance the professional elites have adopted, and this usually reflects the prevalence of actual fluoridation in a particular country.

To push fluoridation in the face of potential or actual popular resistance, the medical-dental strategy has been to claim that the benefits of fluoridation, and the lack of risks, have been scientifically proven beyond dispute. If this is the case, then opposition can only come from 'irrational' individuals and groups, and in heavily fluoridated countries this is how opponents of fluoridation are painted.

One problem with this strategy is that disagreement with fluoridation on scientific grounds is quite possible : the scale of benefits can be disputed, and risks shown to exisit for some people. But in fluoridated countries this disagreement has been almost completely suppressed from the standard medical-dental literature. A picture of scientific unanimity is presented to the public and to state elites. In addition a fair bit of unabashed promotion of fluoridation goes on.

As a result, most of the overt opposition to fluoridation has come from citizen group who, in the lack of scientific opposition, latch on to various arguments. Some of these lack any basis, such as the claim made by some United States opponents that fluoridation is a communist plot. More substantial arguments include the medical-ethical argument that people should not be exposed without their consent to uncontrolled dosages of a medication, fluoride, and the nutritional argument that it would be healthier and safer to promote better general diet to prevent tooth decay rather than using a magic bullet to do this. And underlying much of the opposition to fluoridation, there seems to be an opposition to the uncontrolled impositions of the medical-dental elites themselves.

Conclusion. The cases of thalidomide, Velikovsky, wind power and fluoridation show that opposition to dissenting views can come primarily from either corporate, bureaucratic or professional elites, or from a complex mixture of them. In all these cases, the ultimate source of opposition to elite interests lies in some portion of the community, among the non-elites. The mobilisation of this reservoir of potential opposition is often aided by action by concerned insiders such as doctors, scientists or academics. Usually these

The development of nuclear weapons policy provides an excellent example of the role of professional elites in high-level policy in the United States. Nuclear scientists claimed a policy role by virtue of their special knowledge. Groups within the state bureaucracy—such as the military and the federal executive—mobilised experts to support their own views and interests. All combined to exclude public involvement in the nuclear issue.[13]

What is the role of professional elites in dissent and its suppression ? It is a complex one. On the one hand, professional elites favour freedom for professionals to determine their own conditions, and as a result oppose suppression from corporate and bureaucratic elites. On the other hand, professional elites tend to oppose dissent which threatens their own vested interests.

Professionals justify their own autonomy by invoking professional freedom, or more generally freedom of speech. Professionals often have opposed constraints on free speech imposed by corporate and bureaucratic elites, and asserted the right to 'professional freedom'. The political power basis for 'professional freedom' is the establishment of a monopoly on a body of esoteric knowledge which is alleged to be necessary before activity defined as professional can take place. For example, 'scientific freedom' is supposedly required so that the full fruits of scientific endeavour can be realised; in other words, since only scientists know what they are doing, they must be given freedom over their own conditions in order to maximise social benefits. One may be cynical in many cases about the necessity for professional freedom, but the struggle for such freedom has had positive spinoffs. Claims for social privilege are most effective when they are based on a universalistic appeal, and 'freedom of speech' is such an appeal. Professionals often have supported the general principle of free speech in the course of expanding and protecting their own professional freedoms, especially when the threat to such freedom comes from outside the class of professionals.

In 1977, both Peter Rawlinson of the Zoology Department and Philip Keane of the Botany Department at La Trobe University spoke out about the dangers of cinnamon fungus in Victorian forests. This was an open challenge to the interests of the forest industries and the government forest bureaucracies. As a result of their statements, the Chairman of the Forests Commission of Victoria wrote and had hand-delivered at least 10 letters to top officials of La Trobe University complaining about the statements by Rawlinson and Keane. But this pressure to take action against them was strongly resisted by the La Trobe University officials concerned. The Chairman of the Forests Commission was informed that all Australian University Statutes are framed to allow staff to speak publicly on controversial issues, thereby preserving academic freedom. This is an example of how at times professional elites may act as strong defenders of dissent and open opponents of suppression.

The rhetoric and reality of professional freedom do not always match. During the cold war period, university officials at Harvard and Yale collabor-

ated with the FBI in vetting applicants for positions. But the officials, perhaps aware of the discrepancy between this complicity and the professional norms publicly espoused by the university, opposed revealing this connection both at the time and indeed ever since.[14] Similarly, the use of security checks to screen applicants for university positions in Australia during the 1950s has never been publicised by the universities.[15]

The role of professional elites in opposing suppression is limited by their incorporation into wider power structures. Many professionals work for corporations and state bureaucracies, and while many still identify with goals of professional autonomy, others collaborate with corporate and bureaucratic elites. Just as there are captured bureaucracies, so there are captured professionals and captured professional groups. Most nuclear scientists and engineers are solid allies of the nuclear industry. Those who are most likely to support free speech are those most independent of the industry, in particular university theoretical nuclear scientists. For example, Richard Temple and F. P. Robotham, two leading opponents of nuclear power and uranium mining in Australia, fall generally in this category. The usual path taken by professional elites is to cooperate with corporate and bureaucratic elites, maintaining an overall power structure in which each set of elites has its own independent interests which only mildly conflict with the interests of other elites.

In some cases serious conflicts do arise between elite groups. One case of special importance arises when aristocratic, bureaucratic or corporate elites refuse to make room in the economic and political system for all the aspiring professionals. Some of the intellectuals who are thereby 'marginalised'—not given an opportunity to rise above lowly bureaucratic or teaching posts, for example—may throw their lot with revolutionary bodies. Such marginalised intellectuals have been the elites of many revolutionary parties. If a crisis occurs which paralyses the existing state apparatus, and which stimulates peasant and working class revolts, a revolutionary party led by marginalised intellectuals may be able to shape the creation of a new state.[16] This has happened for example in the French, Russian, Chinese, Mexican and Vietnamese revolutions. The result of such social revolutions is the creation of a much larger, more centralised and more powerful state apparatus. Under state socialism, corporate elites are destroyed, and the power of bureaucratic elites is greatly expanded.

To return to the role of professional elites in capitalist society: on the one hand they support rather generally professional freedom, but on the other they oppose challenges to their own professional control. For example, even though corporate elites at times complained to the Institute of Medical and Veterinary Science about statements by John Coulter, no serious action against him was immediately taken by IMVS elites. The precipitating factor in John Coulter's dismissal arose when he provided results of tests for mutagenicity of environmental chemicals directly to workers. This was a

serious threat to professional elites in the IMVS, since it undercut their control over expert knowledge and its distribution. Cedric Pugh's basic sin was to question the governance of the South Australian Institute of Technology, and thus to challenge the power of professional-bureaucratic elites at SAIT. Similarly, Sidney Orr questioned the governance of the University of Tasmania and challenged the power of professional-bureaucratic elites there. The challenge by Michael Spautz to the competence of Alan Williams, a professor, was a challenge to control over assessments of academic competence by academic elites.[17] In each of these cases, professional elites opposed rather than supported dissent, because the dissent was a challenge from below to their own power and privilege rather than an exercise of freedom mainly threatening to other elites outside the profession.

Within professions, power is often maintained on the basis of empires of specialised knowledge, whether this is specialist medical treatment or knowledge of a certain country's history. Fundamental challenges to a speciality from within are few, since those who have invested time and effort to enter the area seldom wish to tear it down. (Small challenges within a speciality, to gain prestige and position, are much more common, though currying one's way to advancement remains the standard approach). Attacks from outside the speciality, which may be mounted to expand other empires, are also resisted. For example, within universities interdisciplinary studies are often opposed, since most academics rise to positions of power via successful research and publication within a narrow specialisation. The Human Sciences Program at ANU has been opposed by both scientists and social scientists as not rigorous enough. But the problem is not rigour but the threat to disciplinary empires which the interdisciplinary programme poses.[18]

The populist challenge

Common to the perspective of all elites is an opposition to activities which potentially expand the avenues for participation by non-elites in decision-making or judgement. Such activity provides a common theme for many cases of suppression. Making criticisms on the inside is often accepted or tolerated. But 'going public' is usually going too far. This is what antagonises elites more than anything. And since many workers in corporations, state bureaucracies and professions identify their own interests with those of the elites, dissidents who go public often have little support on the inside. But it precisely because there is so much potential support on the outside—among the 'public', those who do not have formal positions or special knowledge—that going public is so frowned upon. It is not surprising that subjects such as worker's control are seldom studied even by academics, that genuine popularisation (that goes beyond public relations) is often denigrated, that deprofessionalisation is never discussed, and that all insiders look down upon 'amateurs'.

To illustrate the differing interests of elites and the public, I will briefly discuss a quite diverse set of examples : thalidomide, Velikovsky, wind power and fluoridation.

Thalidomide.[19] Those with immediate vested interests in promoting the tranquilliser thalidomide were the corporate elites of Chemie Grunenthal, the West German company which developed and marketed the drug, and of companies in other countries licensed to market it. When evidence began surfacing about the harmful side-effects of thalidomide—initially, the deadening of nerve sensations in fingers and toes, sometimes irreversible—attempts were made by company elites to suppress criticism. Attempts were made to discredit critics, to block publications critical of the drug, to falsify unfavourable research findings and to pay for sympathetic studies to counteract criticisms. Most importantly, the company continued to advertise thalidomide as being completely safe, discounting the mounting evidence of risks.

Corporate elites from drug companies not marketing thalidomide had no particular interest in supporting a competitor's drug, but on the other hand they had no particular interest in opposing it. Any clampdown on drug marketing, or a scare about the hazards of drugs, would not have been in their immediate interests. Corporate elites by and large were not active in the thalidomide issue,

The relevant bureaucratic elites are found in government regulatory bodies. Many of these are classic 'captured bureaucracies' : servants of the pharmaceutical industry. In most countries, bureaucratic elites did little to restrain the marketing of thalidomide, until forced into action after the arousal of public concern. One exception was the United States, in which only limited trials occurred. Full-scale marketing of thalidomide was blocked there partly because one government scientist, Frances Kelsey, refused to bow to strong pressure by the company marketing the drug on her and on her Federal Drug Administration superiors to give the drug to go-ahead.

Professionals played several different roles in the thalidomide case. Several of the key figures in Grunenthal who promoted the drug were chemical researchers : professionals who were attuned to corporate goals. Most doctors and medical associations took no special interest in the drug, which was only another addition to the great number already in use. Many doctors readily prescribed thalidomide without much suspicion about the amazing claims made for it. No study has been done to determine what fraction of doctors took notice of side-effects of thalidomide, but it is known that some who noticed this became quite concerned and tried to publicise the danger. The attempts at suppression instigated by Grunenthal were aimed at such doctors. In any case, it was mostly doctors who were not especially prestigious who did the most to sound the alarm. Like the cor-

insiders occupy low or middle-level positions, or exist on the fringe of the area in question. Suppression is usually aimed at restraining the activities of these crucial people who work within corporations, state bureaucracies or professions, and yet are willing to speak up against the interests of elites in these areas. Suppression thus is a telling symptom of the distribution of power in society.

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