# Understanding the welfare state: the case of health care<sup>1</sup>

## MICHAEL MORAN

#### **Abstract**

This article redresses an imbalance in the study of the welfare state: the comparative neglect of health-care programmes as sources of evidence about the changing politics of the welfare state. It explains why health care should be central to our understanding of the welfare state; summarises the present debates about the pressures on welfare states; explains how to think about health-care governance in this connection; develops a typology of 'health-care states'; and shows how the experience of health care reflects, and how it departs from, the wider experience of welfare states.

# Understanding the welfare state

Debates about health-care policy should be central to our understanding of the contemporary welfare state, for some obvious reasons. In the bundle of goods and services commonly packaged up in the welfare state health care is a major component—whether we measure by resources consumed, numbers employed in creating and delivering health-care goods and services, historical importance in the statecraft that built welfare states, or the subjective attachment of citizens to the services of health-care institutions. Yet oddly, the literature on health-care policy is often semi-detached from the wider literature on the welfare state, being immersed instead in its own specialist controversies; conversely, writings on the welfare state often seem to marginalise health-care policy. Though any observer of the welfare

state acknowledges that health care is a big component of welfare provision, it is striking that many of the major contributions that have in recent years shaped debates about the welfare state (Esping-Andersen 1990 is a good example) have had health policy at the corner of their eye rather than in the centre of their vision. The purpose of this article is to redress this semi-detached condition.

## Welfare states in trouble

A decade or so ago the comparative literature on the welfare state was consumed by the language of crisis—the exact meaning being that a revolutionary transformation of the condition of the welfare state was to be expected; for 'critical', if it is not simply used for rhetorical effect, must mean a turning point after which the circumstances of the 'patient' are transformed (see Moran 1988). In fact, we now know that the welfare state in the 1980s was not poised on the brink of critical transformation. On the contrary, the dominant experience was what Pierson calls 'stickiness': the structures of policy making, coupled with the powerful interests themselves created by previous episodes of welfare expansion, made flexible policy adaptation immensely difficult (Pierson 1998, 552ff.). The policy-making structures of welfare states proved incapable of anything like critical transformation; policy change there has been, but constrained or enabled by highly contingent circumstances of particular programmes and their clients.

It is precisely this disjunction between institutional arrangements and changing social and economic structures that leads, in Rhodes' phrase, to the conclusion that 'welfare states are in trouble' (Rhodes 1996, 307). Four kinds of change are important: transformed demography; transformed labour markets; a shift to a more global economy; and the growth of Europeanisation. Each are here examined in turn.

Demography has been transformed since the 1950s, the era when welfare state-making as an exercise in statecraft was at its height. The decline (in some instances collapse) of birth rates, coupled with increasing longevity, is producing increasingly old populations. The most suggestive general conceptualisation of this change is offered by Alber (1995). The established research on the welfare state concentrated heavily on transfer payments because these were a critical mechanism for addressing problems arising from class inequalities created by the workings of labour markets. Alber argues that these issues arising from labour-market location are being supplanted—or at least joined—by a range of social problems tied to

the 'life situations' of groups not in labour markets, such as children, the very old and, it might be added in passing, the most severe cases of the chronically sick. The common thread in these changes (and the reason Alber's conceptualisation is so suggestive) is that they create a range of problems, and a range of interests, not easily recognised by the established policy actors empowered by welfare states, actors disproportionately concerned with the stratification consequences of labour markets. In Esping-Andersen's words: 'the edifice of social protection in many countries is "frozen" in a past socio-economic order that no longer obtains, rendering it incapable of responding adequately to new risks and needs' (1996, 2).

The second change concerns, precisely, the identity of those in labour markets. Welfare states were built on economies dominated by industrial employment and indeed, in many instances, the core of the statecraft was designed to cope with some of the class interests created by industrialisation. Every mature industrial economy has seen a marked shift from industrial to service employment. The single most important welfarepolicy consequence of the shift has been expressed by Pierson (1998): it means economies dominated by sectors in which the possibilities for productivity growth are much fewer than hitherto. The implications for policy are obvious. The shift to service-dominated employment has paralleled the maturing of most of the welfare states of the advanced industrial world with: the expansion of their programmatic range; an advance to full, or nearly full, coverage of populations by their most important programmes; and a secular increase in the scale of societal resources, and in the state's resources, consumed by welfare services. The result is part of Pierson's story of 'irresistible forces, immovable objects'. If welfare states have not 'grown to limits' (as Flora 1986 suggested) they are nevertheless now living in a world in which there is a disjunction between the demands of institutionalised spending programmes and the productive capacities of economies.

A third commonly identified change is in part bound up with the altered composition of labour markets and is commonly summarised as globalisation. Despite periodic efforts to bury the concept with a stake through its heart, it returns perpetually to haunt the welfare state, and the reason is surely obvious. The economic world to which the welfare statecraft of the golden age was addressed has been irretrievably altered by changes in forms of economic production and exchange: the end of the Bretton Woods system; the creation of globally organised markets trading a wide range of financial instruments; and the rising significance of the transnational corporation as an agent of global integration in the creation, production and marketing of goods and services.

The three changes in social and economic fundamentals identified impinge on all the welfare states of the advanced industrial world. The fourth, Europeanisation, obviously has a more restricted regional relevance, but is nevertheless central to the future of welfare states. Most of what we now think of as characteristic of the welfare state is a European invention. The core administrative technology of social insurance was historically diffused from national systems that now lie at the heart of the European Union (Ferrera 1997, 7). The welfare statecraft of the golden age predates the emergence of the Union as a major political and economic actor. Just as welfare states were born and matured in national economies, so they were likewise born and raised in national political systems. The great historical change involved in the creation of the European Union must have profound implications for welfare statecraft. The general character of the impact is expressed succinctly by Scharpf (1997). Welfare statecraft in Europe is now on the horns of a dilemma; economic integration is undermining the ability to pursue divergent welfare regimes; economic diversity stands in the way of a common welfare regime.

To summarise, the apocalyptic language of crisis that so dominated discussion in the 1980s was abandoned because we saw that for the most part welfare states were quite incapable of anything so decisive as a crisis. The welfare states that commanded most attention—those lodged in the big economies of Europe and North America—owed their most problematic features to the statecraft of the golden age: to the way booming productivity in the advanced capitalist world allowed the construction of generous social programmes designed to create viable rivals to the appeals of fascism and communism. The structures then created remain fundamentally unaltered, as a large body of comparative evidence shows. But the social and economic foundations on which those structures were erected have fundamentally altered: from societies dominated by social problems produced by occupational stratification to societies with problems generated by life situation; from labour markets dominated by male manual workers to service-led workforces; from national economies in which globalisation was vestigial to one where it is advancing fast; from a world of European welfare states to a world of Social Europe.

# Understanding the health-care state

In part the answer to the question 'what has all this to do with health-care policy' is obvious: alongside pensions, health care is the biggest single consumer of resources in modern welfare states and states are either directly

the dominant financiers of health care or are central to the regulation of institutions that provide the money. Health care looms large in the modern welfare state, and states loom large in modern health-care systems. These generalisations hold across the whole population of modern welfare states. The clinching example is provided by the United States, precisely because it is a nation commonly pictured as possessing only a residual welfare state and lacking, in the eyes of some, anything that could be dignified with the term health-care 'system' at all. Yet even here the state has in recent decades become a major presence in the financing of health care and the health-care system a major presence in the finances of the (federal) state: by the mid-1990s nearly half the current cost of health care (to be precise, 46.7 per cent of the latest estimate) came from the public purse (Levit et al. 1998).

An obvious conclusion follows: making sense of what is happening to the health-care state is critical to making sense of what is happening to modern welfare states. Yet that phrase 'health-care state' is an invitation to error, for in echoing 'welfare state' it suggests that health care can simply be read off as a subset of welfare policy and that health-care systems can be considered as sub-systems of the welfare state. Neither of these suggestions is true. Health-care institutions are influenced by, and of course influence, the wider welfare state; but they are also shaped by dynamics of their own—some of which are internal to, and some of which are external to, the health-care system. 'Governing the health-care state' is about how governing activities are conducted in three important arenas: governing consumption, governing provision and governing technology.

The government of consumption is what occupies most observers of health-care systems, and it is what lies at the heart of most accounts linking health-care policy (usually in alarming terms) to the fate of welfare states. The origins of this governing process lie, in the case of most of the advanced industrial nations, in linked changes that came over medicine, and the financing of health care, just about a century ago. In the half century after, approximately, 1875, medicine experienced a therapeutic revolution: a mixture of social innovations (for instance, a rationalised division of labour in hospitals often drawing on the lessons of battlefield surgery) and technological innovations (based on advances in germ theory, in immunology and in physics) transformed the therapeutic efficacy of allopathic medicine (see Reiser 1978). Somewhere around the turn of the century doctors, for the first time in human history, ceased to be a positive danger to the sick. At around the same time the hospital was transformed from a receptacle for the sick poor, and a dangerous source of disease, into

an institution central to the practice of the new scientific medicine. Health care became a highly desirable consumption good and health-care financing took a new turn: insurance systems that had originated for purposes of income maintenance (principally to insure against wage loss through sickness among manual workers) now turned to the direct financing of the cost of the care.

These twin developments (the transformation of the curative efficacy of allopathic medicine that turned it into a highly desirable social good, and the turn taken by health insurance to financing the direct cost of care) lie at the origin of the government of consumption. Two governing tasks immediately had to tackled. By what means, if any, would societies decide on the total volume of resources to be allocated to the financing of health care? By what principles, if any, would the access of individual patients to the newly effective curative medicine be governed? Most of the standard typologies of health-care systems rest on the sort of principles evolved to tackle this second governing task. The first task—attempting to make some judgement about the total volume of societal resources to be devoted to health care—has, as is well known, been particularly pressing in virtually every advanced industrial nation in the last quarter century. The standard data sources—most notably the assemblage in the OECD Health Data set—tell a story that will once again be familiar to any observer of the welfare state. During the long boom the scale of spending on health care rose greatly, reflecting (and, of course, in some degree causing) the wider growth in the resources consumed by the welfare state. The origins of that rise are well known: they were partly structural and partly the product of purposive policy innovation connected to welfare statecraft. The structural origins lie in the character of health care as a merit good, demand for which rises with income: that helps explain the well-established finding that the best predictor of the volume of national spending is one of the usual measures of national wealth. Purposive policy innovation consisted, in essence, in the diffusion from a group of pioneers—such as Germany and the United Kingdom-of various means of embedding universalistic principles in governing individual access to health care. As the standard data sources show, by the middle of the 1970s a wide range of countries had established publicly funded schemes guaranteeing access to a package of health-care services for whole, or nearly whole, populations.

As the passing reference to Germany and the United Kingdom indicates, countries adopted different models to govern access to the consumption of care by individual citizens and these are expressed in some of the standard classifications of health-care systems: Bismarckian, where consumption is

governed through labour-market location and financed by, in effect, payroll taxes; 'national health service' principles, where consumption is an implicit—the United Kingdom—or explicit—Italy, Spain, Portugal—entitlement of citizenship and is financed from general taxation (Ferrera 1996a; Guillén and Cabiedes 1997; Guillén 1999 for the Mediterranean); and market, where consumption claims depend on contracts made in commercial insurance markets. Most national systems were mixtures of these ideal types, but, as is well known, some important cases exemplified the differences: notably Germany (Bismarckian), the United Kingdom (national health service) and the United States (market).

These standard classifications are plainly intellectually fruitful but we should notice some important limitations to their ability to give us information about the governing process. They obscure a vital common feature that marks the government of consumption regardless of its organising principle—whether derived from Beveridge, Bismarck or Adam Smith: it is collectively organised, and its politics are a politics of collective consumption. Nor could this be otherwise. The character of modern sciencebased medicine—the fact that it so commonly involves the delivery of care through high technology and the intense application of skilled labour means that only the fabulously rich could finance it as a normal individual commercial transaction. For the rest of us, consumption is only possible through participation in some schemes of collectively organised risk pooling. Even after 20 years of pressure to impose co-payments across the healthcare systems of the European welfare states, 'out of pocket' payments for health care remain a tiny element of both the household economies of citizens and the health-care economies of nations in most European systems (for Mediterranean exceptions, see below.) Once again the United States provides the starkest evidence of the collectivisation of consumption, precisely because it is so commonly seen as an exemplar of market exchange. Direct 'out of pocket' payments by patients—once the cornerstone of the American health-care consumption system—show a remorseless decline: in 1960, 56 per cent of the cost of care was accounted by direct 'out of pocket' payments; by 1996 that figure was down to 16.5 per cent (Levit et al. 1998).

This money has been replaced from two sources. One, already alluded to, is the public purse. The other is health-insurance entitlements created by contracts in commercial insurance markets. But almost none of the risk-pooling arrangements in the American system are the result of contracts made by individuals in the commercial insurance market: in 1996 just over 75.9 per cent of workers were covered by employment-based health

insurance, while only 2.9 per cent relied on independent private insurance cover (Cooper and Schone 1997, 147). Commercially organised health insurance is overwhelmingly occupationally based, mostly the result of collective bargaining in the core parts of the industrial economy. Health-care consumption in the United States is the product of collective bargaining, and the consumption entitlements of individuals are determined mostly by their location in labour markets: the 37 million Americans without health insurance are deprived, not by act of individual commercial choice, but because they are not employed (or are not sufficiently securely employed) in the core parts of the industrial economy.

From the collective character of health-care consumption systems flow two important consequences for our examination of the governing process, one substantive the other analytical. Substantively, it means that wherever we look in the advanced industrial world, states occupy a central role in these systems of collective organisation; they may be virtually the only third-party payer who matters (the United Kingdom, Scandinavia); they may be the biggest single third-party payer (the United States); they may be centrally involved in struggling with the inadequacies of existing systems of third-party payment (the United States again); and/or they may both provide a public law framework for the institutions that dominate thirdparty payment and, partly as a result, be centrally involved in attempts to cope with the inadequacies in the third-party payment system (Germany and most other 'Bismarckian' systems). That observation also starts to justify the dangerous coinage of 'health-care state', for it is now plain that, in the government of consumption, the institutions of states and the institutions of health-care systems are inextricably linked. The analytical consequence is to cast existing classificatory systems in a new light: in particular, Beveridgian, Bismarckian and market categories turn out to be based on the single criterion of how consumption is governed—and, indeed, relate to the narrower matter of how third-party finance for health care is organised. Of their nature these classificatory categories can only give us incidental information about the two other governing arenas: where provision and technology are governed. And, as I now try to show, we need a distinct focus on both the government of provision and the government of technology.

Health care is not consumed it is provided, by which I mean that access to the enormously valued goods and services created by the therapeutic power of scientific medicine depends heavily on discretionary decisions made by highly skilled workers employed, often, in complex organisations with elaborate hierarchies and a refined division of labour. Two aspects of

the governing process are particularly important. First, the historic transformation in the therapeutic quality of hospital care means that modes of hospital government (for instance, the amount and style of public regulation, the mix of private, non-profit and publicly owned institutions) are central to the government of provision. Even the most casual observation shows that variations in the governing arrangements for institutional provision map hardly at all onto categories derived from consumption government: for instance, 'national health service' systems include those where the central state owns much of 'the means of production' (the United Kingdom); where ownership is public but often decentralised (some Scandinavian systems); and where a formally 'nationalised' hospital system in practice coexists with a large institutional private sector (Greece, Portugal: see Guillén 1999).

A similarly poor fit is observable between consumption regimes and a second major aspect of the government of providers, professional government. Like many other parts of the welfare state, health-care delivery systems are highly professionalised. The governing of professions, and particularly of the medical profession, has been almost everywhere the centrepiece of the government of providers. Once again, variations in the government of professional providers map poorly onto consumption categories. Take 'national health service' systems again: they coincide with some Scandinavian systems where doctors are in the main salaried public servants; with the UK system where the key primary carer, the general practitioner, has been a self-employed contractor but one with little freedom to generate discretionary income; and Mediterranean arrangements in which there is extensive private practice by medical professionals allowing the generation of significant discretionary income (on the latter, see Ferrera 1996b). Likewise, the Bismarckian German consumption regime and the American consumption regime based on contracts made in commercial insurance markets have been accompanied by provider systems dominated by office doctors operating fee for service payment systems (though admittedly within very different institutional settings.)

National histories of medical professions do differ, but putting the government of medical professions at the centre of any comparative examination of provider government makes a lot of sense. The therapeutic revolution that produced modern scientific medicine empowered doctors to an extraordinary degree. Practitioners of allopathic medicine used legal and administrative means to exclude practitioners of rival models of care from delivery systems, forged alliances with the parts of the laboratory sciences that were helping lay the foundations of the revolution in

therapeutic efficacy, and established a position of dominance over other groups in the chain of carers, such as nurses. Starr (1982, 4) has put the central importance of the profession eloquently:

The medical profession has an especially persuasive claim to authority. Unlike the law and the clergy, it enjoys close bonds with modern science, and at least for most of the last century, scientific knowledge has held a privileged status in the hierarchy of belief. Even among the sciences, medicine occupies a special position. Its practitioners come into direct and intimate contact with people in their daily lives; they are present at the critical transitional moments of existence. They serve as intermediaries between science and private experience, interpreting personal troubles in the abstract language of scientific knowledge.

Doctors became, and in the main have remained, the dominant group in the allocation of health-care resources. As far as the process of provider government is concerned, the most important feature of all this can be simply described: we are here talking about professions, and professionalism is a distinct strategy in the control of a labour market. In essence it is a strategy of closure, from both the market and the state. In Abel's graphic phrase it involves walking a tightrope between the market and the state (Abel 1989). The nature of that tightrope act will obviously vary depending on national circumstances, but it is necessary across most of the OECD nations because medical professions usually operate in economic and political environments that share two important common features: all their economies are to some degree based on market competition; and most of their political systems are, if only in a rough and ready way, based on liberal democratic principles. Strategies of closure are designed to cope with these contextual features: to create systems of professional government that allow the occupation to exercise influence over competitive markets and to allow it to exercise autonomy in governing arrangements in the face of political systems where constitutional ideologies suggest that the exercise of authority needs to be validated by some systems of public accountability. The essence of the professional project is to appropriate public power to allow control over entry to, and competition within, the market, while at the same time allowing the profession to control its own affairs. The upshot is that this key part of the government of provision is widely marked by some form of private-interest government.

Health care is a labour-intensive service and this is what makes the government of provision so important. But since the original therapeutic

revolution it has typically involved the application of the artefacts produced by highly organised systems of innovation, production and marketing. The original therapeutic revolution, indeed, also involved the foundation of the medical technology industries—displacing amateur 'bodging' by the systematic organisation of the production of the artefacts of health care along industrial lines. The golden age of health-care spending was accompanied by a vast expansion in the scale of these industries and by the organisation of increasingly sophisticated systems of innovation.

Three features of these systems of innovation should be highlighted. First, states were from the beginning central to the creation of the medical technology industries and they continue to be central to their maintenance. They funded, and continue to fund, much of the basic 'blue skies' laboratory research in the biological sciences and in micro-electronics on which much innovation is based. At critical historical moments—such as the great mid-century World War-they promoted innovations (such as the wider application of penicillin or advances in plastic surgery) that were directly applicable to health care and they promoted innovations (such as sonar detection technology) that could later be reapplied for medical uses. Their regulatory activities—for instance in promoting drug safety or in the classification of medical devices—shaped marketing strategies and even the very structure of industries (see Merrill 1994 for an example). The industries are in turn central components of the leading industrial states and are closely linked to the international political economy in which these states are critical actors. Restrictions on space allow only a few examples to make the point. There is a close link between the medical technology industries and the defence sector, reflected for instance in the presence of many leading firms in both sectors. Medical equipment, in particular, has proved one of the most dynamic parts of the modern industrial economy. The case of the diagnostic imaging market is a good example: in the 1970s and 1980s the American diagnostic imaging market was growing at around ten per cent per annum, a rate comparable to that achieved in glamour technology sectors such as computing (Trajtenberg 1990, 48). Finally, a structural feature of the medical technology industries should be noticed, which also reflects a feature of the wider international economy: they exemplify American hegemony. However it is viewed, the world production and consumption of medical technology is American driven: in medical devices, for instance, the US characteristically consumes about 60 per cent of the global total, and produces about the same figure (Foote 1992, 179).

Now we come directly to the critical feature of the government of medical technology. For states, especially for leading industrial states, medical

technology is both a problem and an opportunity. It is a problem because technological innovation is a constant force driving up the volume of resources committed to health care; and it is an opportunity because this innovation system, at least in some states, is an important resource in economic statecraft. The way states govern innovation systems—to shape products and to create markets—shows a remarkable uniformity when viewed comparatively (by contrast with the patchwork evident in the consumption and provision spheres.) The reason is simple. Medical technology is in large part produced and marketed by private corporations. Property, including the vital matter of intellectual property, is validated and safeguarded by the state, and the corporations retain huge discretion over the exploitation of property rights, over the nature and scale of investment and over marketing strategies. This statement is true of systems normally considered as different as those of the United States. United Kingdom and Germany. The standard means of distinguishing health-care systems are entirely obliterated in the government of medical technology. In fact, the system of government that prevails here was anticipated by Lindblom over two decades ago in his general account of states and markets in capitalist democracies. He called it a species of polyarchy. The industries are lodged in democratic political systems but they are owned and controlled by entrepreneurs and corporate actors enjoying the privileges and status of holders of private property in a market economy. Lindblom might have been writing about medical technology when he wrote these words:

in any private enterprise system, a large category of major decisions is turned over to businessmen, both small and larger. They are taken off the agenda of government. Businessmen thus become a kind of public official and exercise what, on a broad view of their role, are public functions. The significant logical consequence of this for polyarchy is that a broad area of public decision making is removed from polyarchal control. Polyarchal decision making may of course ratify such an arrangement or amend it through governmental regulation of business decision making. In all real-world polyarchies a substantial category of decisions is removed from polyarchal control (Lindblom 1977, 172).

To summarise, 'the health-care state' consists of three important governing arenas: consumption, provision and technology. Each of these is marked by distinctive systems of politics. The government of consumption is dominated by struggles about the collective consumption of health care. The heart of the government of provision is the government of the medical

profession and is marked by various systems of private-interest government. The government of technology is polyarchic.

This summary of the characteristics of three important arenas of health-care government also explains why it is useful to persist with the term 'health-care state'. The phrase refers to the fact that states and health-care institutions—whether looked at from the point of view of consumption, provision or technology—are joined symbiotically. But not all symbiosis takes the same form, as is shown below.

### Families of health-care states

Not all struggles about collective consumption are resolved in the same way; not all systems of private-interest government are alike; not all polyarchies empower business to the same degree. States can, and will, intervene in these three governing arenas in different ways. What is more, it would not be surprising to find that the way they intervene in the government of technology, for instance, has consequences for what they can do in the sphere of consumption. In this section I create a classification of 'families' of health-care states. As in any identification of family traits the classificatory criteria are rather 'soft' and depend a great deal on qualitative judgements to identify affinity. Four important families are identified here: entrenched command and control states; supply states or, rather, one overwhelmingly important supply state; corporatist states; and insecure command and control states.

The first 'command and control' family I label after the work of Saltman and von Otter (1992). I call it 'entrenched' because, in the family of states considered here (covering Scandinavia and the United Kingdom), the institutions of command and control are long established, have a considerable and often powerful group of clients and have wide public support. Command and control states of this kind are distinctive in all three governing arenas—consumption, provision and technology. In consumption the state is the absolutely dominant actor. It extracts the resources for consumption mostly through classic command and control devices, using state power to command resources through the taxation system, and it allocates the resources raised through administrative mechanisms. Saltman and von Otter have a very good description of its consumption practices when the system worked at full power:

The dominant policy paradigm during this post-war expansion [of health-care provision] was a relatively rigid command-and-control

planning model. Decision-making responsibility was vested in elected officials at national level (the UK), national and regional (Sweden, Denmark, Norway) or national and municipal (Finland) levels, while day-to-day operating authority was delegated by these politicians to a corps of career administrator and planners. This top-down planning model was conceptualised as a publicly accountable arrangement that could ensure provision of a necessary social good in a universal and hence cost-effective fashion (Saltman and von Otter 1992, 4–5).

With providers, the state closely circumscribes the sphere of private interest government. Much of the 'means of production' is in public ownership, notably in the hospital sector, and professionals and para-professionals are commonly public-sector employees. Even where this is not the case the state fashions a sharp division of labour with doctors. In the United Kingdom, for instance, this was famously expressed in Klein's phrase 'the politics of the double bed': the state told the medical profession what it could spend, but gave it extensive discretion in how to spend it (Klein 1990). There was close state control over labour-market entry (though some suspicion in the UK that doctors advising the state on policy helped rig supply to ensure a tight market). 'Private-interest' government in the profession mostly concerned control over education, training and ethical practices.

The government of technology was the field where the command and control system was most compromised by the reality of polyarchy. States can do little to restrain the vast apparatus of innovation. Domestic medical technology production is in private hands. Some of these states, moreover, have important interests in promoting medical technology innovation. Denmark has strategically used its domestic health-care markets to build up a medical technology export sector quite out of proportion to its size in the global economy; the country is, for instance, the leading world supplier of hearing aids (Lotz 1993). One of the few success stories in the postwar British economy is the British pharmaceutical industry, which still, unusually, produces firms that are world leaders, a large balance of payments of surplus and over 100,000 mostly high-quality jobs. For 20 years the state has been trying, unsuccessfully, to use procurement policies in the National Health Service to work the same trick in the ailing medical devices industry.

Despite these compromises with polyarchy, in the command and control family the state's overwhelming presence in the consumption and provider arenas has allowed the creation of powerful gatekeepers regulating the diffusion of technological innovations throughout the health-care system.

In the command and control family, states have had highly ambiguous and often fractious relations with the private interests that produce and market technology, but domination of the consumption and provision arenas has meant that the inflationary effects of the engine of technological innovation have been constrained.

It is well known that these command and control states are in trouble. The origin of trouble lies in the fulcrum around which command and control revolves: rationing. The sources of trouble are traceable to the golden age of the welfare state and the long boom that funded that age. They can be expressed in three sets of policy questions. First, to use Alber's language, what is to be done about the demands created by new 'life situation' problems? The most obvious is the demand for resources to treat the growth of chronic sickness, among the aged and others—a development produced by a combination of improved medical technologies, environmental and economic changes that prolong life, and changes in birth rates that alter the age composition of populations. Secondly, what is a command and control system to do about economic changes that raise prosperity, alter class structures by shrinking the traditional working class, draw women out of the domestic home into the workforce and into extended formal education—and in the process all shift the demand curve for health care? Finally, what is to be done about the continuing dazzling ingenuity of the technological innovation system, driven by the incentive systems of both the research career and the market, which continually widens the range of therapies that have to be kept beyond the gate of consumption?

The answer is in one sense obvious: command and control states ration, as they have always done. When scarce health resources are rationed by command and control systems, gatekeeping by providers—especially by medical professionals—is a critical method of suppressing demand. But that kind of effective gatekeeping depends both on compliant consumers and compliant gatekeepers. Wood's work (2000) shows how far the compliant patient/consumer has been supplanted. He reports a comparative study of 'disease related patient groups' in the UK and the US. Two results are especially striking. First, most of these groups are founded on chronic sickness, supporting the supposition that the growth of enduring 'life situation' problems is providing the solidarity needed to organise a previously poorly organised category—patients. Secondly, most of these groups are of very recent (mostly post-1980) origin, suggesting that rationing now has to take place in a much more contested environment than hitherto.

These kinds of pressures help explain why the command and control systems have been laboratories for the kinds of experiments with provider

arrangements described so vividly by Saltman and von Otter. But there is another political response which is less purposive. When scarce resources are rationed in command and control systems a variety of well-known adaptive mechanisms develop. Some (black markets, corruption) have never been significant in the well-developed civic cultures of the states considered here (though they probably were important in that other family of command and control health-care systems that collapsed in eastern Europe after 1989). Another—queuing—has been exceptionally important indeed. The queue—the waiting list—is the most public manifestation of the stresses in the command and control system; as such it has become the central means by which blame for policy 'failure' is assigned or evaded in the politics of health-care policy; and as a result has generated a huge amount of displacement activity—mostly concerned with manipulation of waiting-list indicators—on the part of politicians.

One of the salient features of command and control states was that they kept both the government of provision and the government of technology on a pretty tight rein. The defining feature of the 'supply state' is that both providers and creators of medical technology are rampant. There are some grounds for arguing that Switzerland has the marks of a supply state, but the overwhelmingly important example is the United States. The defining features of the United States as a supply state have been expressed exactly by Jacobs:

the general sequence and form of health policy in the United States diverge from those of all other industrialized nations. The U.S. government's first and most generous involvement in health care focused on expanding the supply of hospital-centered, technologically sophisticated health care ... In contrast to the United States, however, other Western countries have made the expansion of access their first and primary priority; governments have accelerated the expansion of supply in response to widening access and growing demand for care (Jacobs 1995, 144–5).

The origins of that supply orientation lie in some important features of the historical development of both the American state and the American health-care system. The narrative can be reconstructed in a fairly straightforward way. Partly through the agency of some of the great foundations created by capitalist fortunes (notably Carnegie and Rockefeller), the medical profession and the medical research community emerged early as prestigious and well-organised interests in health-care policy (I rely heavily

on Starr 1982 for Carnegie, and Brown 1979 for Rockefeller). Suppliers both creators and deliverers—rather than consumers were the dominant actors in the policy field. The voice of consumption was further weakened by the development of non-state systems of health insurance for the middle class in the 1930s and for the best-organised parts of the industrial working class in the 1940s. There was deep state involvement in the financing of the American health-care system, but from the Second World War until the Medicare and Medicaid reforms of the mid-1960s it took the form of support for medical research and for hospital construction. Through lavish funding of the National Institutes of Health the state built the best scientific community on earth, providing the 'blue skies' research for the supply of high-technology medicine. The Hill Burton Hospital Construction Act of 1946 poured money into hospital construction—\$3.7 billion of federal money in the succeeding 35 years (Morone 1990, 260). This extraordinary cornucopia poured forth as a conscious alternative to the provision of support for collective consumption: 'Medical research is the best kind of health insurance', in the words of Congressman (later Defence Secretary) Laird (quoted in Strickland 1972, 213). By the time the state succeeded in intervening in the government of consumption, in the Medicare and Medicaid reforms of the mid-1960s, supplier interests were entrenched, an entrenchment assisted by well-known features of the legislative process in the American system. The price of passing the mid-1960s reforms was a reimbursement system that allowed providers virtually to charge whatever they wished and encouraged lavish investment in high technology.

The consequences in the contemporary American supply state are well known, and amount to the policy fiasco of American health care. Three should be highlighted. First, supplier interests still control the critical veto points in the decision-making system—in a nutshell, the source of the failure of the Clinton reforms. Secondly, the American system combines rampant cost inflation with a lack of universalism. The latter problem is becoming more acute because occupational change is shrinking the sectors of the workforce where occupational health insurance is well established, and expanding those forms of employment—unskilled, part-time service jobs—where no insurance exists. Finally, in an attempt to put a leash on supplier interests, the weight of the American regulatory state has been bearing down on all three arenas of health-care government—consumption, provision and technology. The result is a governing order of immense complexity, in parts highly juridified, where entitlements are incredibly difficult to fathom out, where significant resources have to be invested in

regulatory management itself, and where the possibility of open democratic debate is frustrated by the dominance of a policy discourse incomprehensible to all but the most dedicated policy 'wonks'.

The case of the American supply state matters in Europe, for two linked reasons. First, there is a global health-care economy and the United States is the dominant force in that economy. This domination is most evident in the case of medical technology. Secondly, the scale and style of the American health-care economy has not only produced a dazzling research and innovation system in 'hard' technology, it has also produced the best policy analysis community on earth, whose ingenuity and professionalism, in both the regulatory institutions and in the academic world, surpass those of any other nation. This makes American analysts, and American preoccupations, a major feature of the developing international networks where policy innovation is argued over. American concerns and American solutions are diffused beyond the borders of the United States. Many critical 'soft' management technologies—notably to do with case mix management—are the product of American responses to American problems but are being widely diffused to non-American systems. American hegemony also helps explain such oddities as the fact that historically successful European systems, such as that of the United Kingdom, actually sought to learn from American experience in their reforms of the late 1980s and early 1990s.

Corporatist health-care states are again marked by particular configurations in all three governing arenas. The German case is paradigmatic. The consumption arena is dominated by public law bodies. The state is insignificant as a third-party payer and is relegated to the role of provider of a regulatory framework for those public law bodies. The most distinctive and prestigious part of the service-delivery system—in ambulatory care—is dominated by public law associations of doctors. Government of technology innovation is rudimentary and has developed late: technology assessment is thin and is (in the case of pharmaceuticals, for instance) heavily dominated by the industry; a similar pattern exists in the case of the regulation of safety in medical technology. (Here see Schulenberg 1997; Kirchberger 1994; Held 1988.)

The travails of this corporatist system are well documented and are directly traceable to its two defining features: the marginalisation of state authority and the attribution of key powers and roles to a network of public law institutions. Let us take the three governing arenas in reverse order. The system has had great difficulties coping with the dynamism and ingenuity of the technology innovation system, particularly where the

medical technology industries (both in pharmaceuticals and medical devices) are among the success stories of the core industrial economy. There has been markedly high (by international standards) investment both in 'big ticket' technology and in routine, but still expensive, technologies, the case of dentistry being a good example (on the latter, see Schicke 1988). In part, this state of affairs is due to the history of provider government, especially to the way professionals in the ambulatory sector have been able to control reimbursement and have shaped a fee-for-service system that provides incentives for investment in technology. The consumption regime, precisely because it is so closely tied to institutions controlled by the social partners (the health-insurance funds), has experienced great difficulty in responding to precisely the sort of structural changes in employment patterns identified in the wider debates about the welfare state, and in accommodating the new problems created by 'life situations'.

The responses to these problems have exemplified all the familiar problems corporatist systems of government face in coping with contextual change: weak steering capacity; established interests stationed at key veto points; and institutional rigidity. Nevertheless, there has been a distinct pattern to change, admittedly often slow and hesitant, in the decades since the end of the long boom. The pattern amounts to the slow subversion of the corporatist model from two very different directions: from the market and from the state. 'Subversion' is an appropriate image, because change from the 'market' direction looks very like an example of Rhodes' 'subversive liberalism' (Rhodes 1995). There has been an unremitting imposition of co-payments. The object, however, seems not to be to decommodify health care as a good, but to be shaped by theories of consumer and producer moral hazard—by the notion that without at least some budget constraint providers will irresponsibly supply, and consumers irresponsibly demand, health-care goods and services. A more fundamental set of structural reforms of a market-enhancing character are flowing from the Seehofer reforms, originally begun in 1993. The introduction of free choice of insurance funds for workers from 1996 has led to competition for members, some loss to funds with high-risk memberships for funds that in effect practise a limited form of risk selection and pressure on funds to modify their solidaristic practices by more commercial calculations (Müller and Schneider 1998).

The realisation that we are also seeing a transformation of state capacities has partly emerged from attempts to make sense of the quite unexpectedly radical content and authoritative manner of the 1993 Seehofer reforms, which in themselves represented a most surprising assertion of

state capacity to impose structural reform on the corporatist institutions. More straightforward still, however, has been the intervention of the state in reshaping the financing of the consumption system, by prescribing a common fund to allow for flows of resources between separate funds (to compensate for varying risk structures) and to reshape the delivery system (for instance by prescribing a retirement age for doctors in office practice.) Some of these measures are modest, but they fit a now well-established pattern of subversion. Hinrichs has summarised the implications of the 1993 reforms: they represent 'the state's recovery of strategic capacities and autonomy against the priority of self-government in the health care sector' (Hinrichs 1995, 671).

The German system is, of course, the largest in Europe and the prototypical system of corporatist government; I conclude that if this system is being subverted then corporatist government in health care is under general pressure.

Insecure 'command and control' families are the most recent creations. They constitute a closely linked family because they are virtually coterminous with the four Mediterranean members of the European Union— Portugal, Spain, Italy and Greece. Beginning with the introduction in Italy of the Servizio Sanitario Nazionale in 1978, a national health system inspired by the British NHS, all of these countries have since developed systems modelled on what I have here called entrenched command and control systems, but in none has command and control been able to entrench itself in the manner of the north European systems. In all the insecure systems, despite the existence of a formal apparatus of citizenship entitlements, the reality is far from one of universal coverage. In Portugal and Greece the system never managed to displace a large private insurance sector. In Italy, fiscal pressures have greatly eroded the universal system to the point where co-payments (which in most European systems are of marginal importance) are now probably the biggest single source of financing for current care. A similar lack of penetration is observable in the case of the government of provision. Although all the systems moved, with the establishment of national health service-type arrangements, to take major institutional facilities into public ownership, numerous services remained privately supplied (Guillén 1999, 25). The medical profession has proved particularly problematic, in all these systems retaining a large area of private practice.

The 'insecure' character of these command and control systems is traceable to two factors. First, while the northern European systems were entrenched in periods of plenty—during the long boom—those in the

Mediterranean countries were developed after the end of the long boom and have had from birth to struggle in a climate of fiscal austerity—a climate that became colder still following the commitment to meet the 'Maastricht criteria' in advance of monetary union. Secondly, the command and control systems in northern Europe were developed in societies where Weberian notions of administrative rationality were deeply embedded; those in southern Europe have had to struggle in very different political cultures. At the extremities they have been undermined by political corruption: the Italian health-care system was, for instance, mired in the <u>Tangentopoli</u> (bribesville) scandals that engulfed the wider political system in the 1990s (Ferrera 1998, 9).

## Bringing the (welfare) state back in

The families identified here obviously resemble the groups picked out by a mode of classification that was dismissed earlier in this article—classification based on systems of third-party payment that yield the familiar categories of national health service, Bismarckian and market systems. Why persist with my more elaborate classification? It is a matter of getting the labelling right, because if we label incorrectly we will misconstrue health-care politics. Take the matter of labelling the United States as a 'market' system. This entirely fails to reveal both what is historically distinctive about American evolution or what is distinctive about its present problems. America's historical distinctiveness lay in the domination of suppliers, not in the domination of the market; and the American state was a dominant force in creating a supplier-dominated health economy. Today, American problems—the policy fiasco and the inability to introduce purposive reform—both have their origins in this supplier domination. It is the domination of supplier interests, not the operation of market principles, that is the primary problem in American health care.

The 'families' identified here plainly do resemble some of the larger 'families' of welfare states identified in the welfare-state literature. Indeed, there is not only a congruence between the shape of 'health care' and 'welfare' states, there is some degree of congruence between modes of government in the three arenas identified in this article, though the arrows of causation causing this congruence differ in the historical routes taken by individual nations. Thus, the United States has its characteristic health-care consumption regime because of the prior power of the interests dominant in provider government and in the government of technology. The United Kingdom probably has its present modes of provider and technology

government because it established the command and control mode of consumption government in 1948 (though if we trace the story before that date we find that the consumption regime itself was shaped by existing provider interests).

It is also plain that many of the economic and social changes causing strains in welfare states are present in health arenas. No policy area has been more dominated by the search for cost containment since the end of the long boom. The productivity implications of a shift to service employment, with all that implies for relative price effects, are particularly plain in a sector that delivers labour-intensive services. The rising importance of chronic sickness as a condition both creates resource problems and exemplifies the wider development of Alber's 'life situation' problems. In addition, well-known change in the demography of most advanced industrial nations means that health-care institutions have to cope with the ultimate 'life situation' problem: death. Much of health care is now merging with the long-term care of the aged and is concerned with managing the experience of dying. Most of us will die in an institution of the healthcare state. In the United States 80 per cent of all deaths take place in health-care facilities; the figure cannot be far out of line with the norm for the rest of the advanced industrial world (Kass 1993, 43).

It is when we begin to reflect on some of the contextual features identified at the start of this article as causing trouble for the welfare state that the experience of health begins to look special. I have wanted to emphasise throughout that we should not identify health-care policy with the government of consumption, important though that is, because there is an equally important process that might be summarised as the industrial production of health. In this article, that has mostly been examined as a matter of what is produced by the medical technology innovation system. The innovation system that lies at the heart of the medical technology industries is also at the root of many of the resource problems in health care—and thus by extension in the wider welfare state. If this innovation system could be closed down, a major source of demand pressure would disappear. Even to moot the possibility is to see that it is a fantasy. The medical technology innovation system is also at the heart of some of the most important sectors of the advanced industrial economies—in chemicals. in micro-electronics, in engineering systems; closing it down would mean destroying large parts of modern industrial economies, an inconceivable eventuality. The strikingly unequal global distribution in the production of technology means that virtually only one nation state—the United States —could seriously constrain the innovation system and, for reasons already entertained earlier in this article, it is the state least likely to attempt the task.

The importance of the health-care production system makes health care both a patient and an agent in some of the key contextual processes identified earlier, such as globalisation and Europeanisation. Nor is this only a matter of the contribution made by the health-care industries to the structural forces creating economic change. There is also an impact at the level of purposive policy making and institution building. The best instance is provided by pharmaceuticals, where there has been built a European-level system of interest representation, the beginnings of a European-level regulatory state (around the European Medicines Evaluation Agency, established since 1995) and the beginnings of a European statecraft organised around Commission participation in international trade diplomacy in pharmaceuticals (on this last, see Vogel 1998).

How this European statecraft will develop partly turns on the fate of the 'families' identified here, for the European Union obviously contains representatives of most of these families. Health-care families, like human ones, are strong in their own special ways and dysfunctional in their own special ways. The developed command and control systems, for instance, have precisely the sort of weaknesses and strengths identified in Lindblom's exploration of systems of allocation based on authority rather than the market. As he puts it, with a touch of hyperbole: 'strong thumbs, no fingers' (1977, 65). Command and control systems are good at coping with resource scarcity: they are good at global cost containment and at allocating resources equitably between classes and regions. They are weak at responding to the demands of consumers, demands made greater by social and economic change; hence they are vulnerable to challenges from market experimentation. The most important supply state—the US—has been brilliant at developing and diffusing the wonders of high-technology medicine, but terrible at ensuring equal access—either in class or territorial terms to those wonders, and hopeless at cost containment. Corporatist families especially in a case such as Germany, where corporatism coexists with a successful economy and a culture of solidarity—have been highly successful at delivering high-quality curative medicine universally across societies. But their governing structures, especially the way sectional interests are empowered, poorly equip them to adapt to the challenge of social and economic change. Finally, the 'insecure' command and control healthcare systems are in deep trouble, despite the great advance they represent over what preceded them. They were born in an age of austerity and have constantly struggled with the circumstances of their birth. Their

surrounding political and administrative cultures do not provide the resources needed to run command and control systems effectively. They have never been able to achieve the level of territorial and class equality in resource distribution achieved in the northern European command and control systems. And in the cold climate of the 1990s, co-payments are undermining even their formally universal character.

The relevance of all this to the United Kingdom will be plain. Britain's was the quintessential command and control health-care economy; one where resources were raised by command of the state (through general taxation) and allocated through administrative fiat. The reforms that overcame the United Kingdom after the late 1980s were not particularly the product of Thatcherite reforming zeal. They happened because in key respects the command and control system in Britain, for all its strengths, had become an anachronism. It was born in the 1940s, in an age when almost everything was rationed. By the 1980s patients were turning into demanding consumers, and command and control health care began to look as anachronistic as the Morris Minor and footballers wearing Brylcreem. It not only had to contend with citizens no longer used to rationing by authority figures; it also had to live in a world where globally organised technology industries, controlled by private corporations, were continually widening the range—and expense—of medical care. Throughout the 1990s the United Kingdom has been trying to reform command and control while retaining the traditional strengths of equity and universal coverage. For students of the British system, and indeed of the British welfare state, the great research questions now concern the success or otherwise of that reform effort.

#### Note

1. The paper was drafted while I was a Jean Monnet Fellow at the Robert Schuman Centre of the European University Institute in the spring of 1999. I thank the EUI for its hospitality. A first version was given to the conference on 'Beyond the Health Care State', held at the Institute under the auspices of the 1998–1999 European Forum, and was also given to the Forum's Wednesday seminar. I am grateful to participants on both occasions for many helpful comments. I owe special debts to Maurizio Ferrera, Ana Marta Guillén and Ellen Immergut. I must particularly thank Martin Rhodes both for his comments and his numerous kindnesses during my tenure of the fellowship. It is a pleasure to acknowledge the generosity of Jens Alber, who supplied me not only with numerous insightful comments but also with data from his own work. I am also grateful for the comments of David Marsh and three anonymous referees for this journal The paper also reports work supported by small grants from the Nuffield Foundation and the UK Economic and Social Research Council, to whom acknowledgement is made.

## **Bibliography**

- Abel, R. (1989) 'Between market and state: the legal profession in turmoil', *Modern Law Review*, 52, 285–325.
- Alber, J. (1995) 'A framework for the comparative study of social services', *Journal of European Social Policy*, 5, 131–149.
- Brown, E. (1979) Rockefeller Medicine Men: Medicine and Capitalism in America (Berkeley: University of California Press).
- Cooper, P. and Schone, B. (1997) 'More offers, fewer takers for employment-based health insurance: 1987 and 1996', *Health Affairs*, 16, 142–149.
- Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism* (Cambridge: Polity Press). Esping-Andersen, G. (1996) 'After the golden age? Welfare state dilemmas in a global economy', in his *Welfare States in Transition: National Adaptations in Global Economies* (London: Sage), 1–31.
- Ferrera, M. (1996a) 'A new social contract? The four social Europes: between universalism and selectivity', EUI Working Paper, RSC 96/36 (Florence: European University Institute).
- Ferrera, M. (1996b) 'The "southern model" of welfare in social Europe', *Journal of European Social Policy*, 6, 17–37.
- Ferrera, M. (1997) 'Welfare state reform as an institutional challenge', mimeo, paper presented to the workshop on 'Political theory and social policy', Paris, 16–18 May.
- Ferrera, M. (1998) 'Targeting welfare in a "soft" welfare state: Italy's winding road to selectivity', Conference paper WS/13, given to the Conference on Recasting the European Welfare State: Options, Constraints and Actors, European University Institute, 11–12 December.
- Flora, P. (ed.) (1986) Growth to Limits: The Western European Welfare States since World War II (2 vols) (Berlin: De Gruyter).
- Foote, S. (1992) Managing the Medical Arms Race: Public Policy and Medical Device Innovation (Berkeley: University of California Press).
- Guillén, A. (1999) 'Improving efficiency and containing costs: health care reform in Sourthern Europe', conference paper WS/31, mimeo, given to the Conference 'Beyond the Health Care State', Robert Schuman Centre, European University Institute, 26–27 February.
- Guillén, A. and Cabiedes, L. (1997) 'Towards a National Health Service in Spain: the search for equity and efficiency', *Journal of European Social Policy*, 7, 319–336.
- Held, H. (1988) 'Medical technology in the Federal Republic of Germany', in B. Stocking (ed.), *Expensive Medical Technologies* (Oxford: Oxford University Press), 116–121.
- Hinrichs, K. (1995) 'The impact of German health insurance reforms on redistribution and the culture of solidarity', *Journal of Health Politics, Policy and Law*, 20, 653–687.
- Jacobs, L. (1995) 'Politics of America's supply state: health reform and technology', *Health Affairs*, 14, 143–157.
- Kass, L. (1993) 'Is there a right to die?', Hastings Center Report, 23, 34-43.
- Kirchberger, S. (1994) 'Health care technology in the Federal Republic of Germany', *Health Policy*, 30, 163–205.
- Klein, R. (1990) 'The state and the profession: the politics of the double bed', *British Medical Journal*, 301, 700-702.
- Levit, K. et al. (1998) 'National health spending trends in 1996', Health Affairs, 17, 35–51. Lindblom, C. (1977) Politics and Markets: The World's Political-economic Systems (New York: Basic Books).

- Lotz, P. (1993) 'Demand as a driving force in medical innovation', *International Journal of Technology Assessment in Health Care*, 9, 174–188.
- Merrill, R. (1994) 'Regulation of drugs and devices: an evolution', *Health Affairs*, 13, 47–49. Moran, M. (1988) 'Crises of the welfare state', *British Journal of Political Science*, 18, 397–414.
- Morone, J. (1990) The Democratic Wish: Popular Participation and the Limits of American Government (New York: Basic Books).
- Müller, J. and Schneider, W. (1998) 'Entwicklung der Mitgliederzahlen, Beitragssatze, Versichertenstrukturen und RSA-Transfers in Zeiten des Kassenwettbewerbs', *Arbeit und Sozialpolitik*, 52, 10–32.
- Pierson, P. (1998) 'Irresistible forces, immovable objects: post-industrial welfare states confront permanent austerity', *Journal of European Public Policy*, 8, 539–560.
- Reiser, S. (1978) *Medicine and the Reign of Technology* (Cambridge: Cambridge University Press).
- Rhodes, M. (1995) 'Subversive liberalism: market integration, globalization and the European welfare state', *Journal of European Public Policy*, 2, 384–406.
- Rhodes, M. (1996) 'Globalization and West European welfare states: a critical review of recent debates', *Journal of European Social Policy*, 6, 305–327.
- Saltman, R. and von Otter, C. (1992) Planned Markets and Public Competition: Strategic Reform in Northern European Health Systems (Buckingham: Open University Press).
- Scharpf, F. (1997) 'Economic integration, democracy and the welfare state', *Journal of European Public Policy*, 4, 18–36.
- Schicke, R. (1988) 'Trends in the diffusion of selected medical technology in the Federal Republic of Germany', *International Journal of Technology Assessment in Health Care*, 4, 395–405.
- Schulenberg, J.-M. Graf Von Der (1997) 'Economic evaluation of medical technologies: from theory to practice—the German perspective', *Social Science and Medicine*, 621–633.
- Starr, P. (1982) The Social Transformation of American Medicine (New York: Basic Books). Strickland, S. (1972) Politics, Science and Dread Disease: A Short History of United States Medical Policy (Cambridge, MA: Harvard University Press).
- Trajtenberg, M. (1990) Economic Analysis of Product Innovation: The Case of CT Scanners (Cambridge, MA: Harvard University Press).
- Vogel, D. (1998) 'The globalization of pharmaceutical regulation', Governance, 11, 1-22.
- Wood, B. (2000) Patient Power? Patients' Associations and Health Care in Britain and America (Buckingham: Open University Press).

Michael Moran
Department of Government
University of Manchester
Manchester
M13 9PL
United Kingdom
email: michael.moran@man.ac.uk
(Submitted May 1999, accepted for publication July 1999)