the universities: pressures & prospects

Colin Crouch & Stephen Mennell young fabian pamphlet 28 45p

into the seventies

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1. introduction

This pamphlet is not a plan for higher education, nor does it claim to deal equally with all aspects of the higher and further educational system. Its chief purpose is to assert the value of certain elements in the British university tradition, and to suggest ways in which their strength may be maintained. These are examined in relation to various pressures now being experienced by the universities, pressures which seem likely to grow over the coming years. The elements which should be defended are, first, a concern for achievement as judged by purely academic standards; and, second, a tradition of partial withdrawal from the demands and constraints of the everyday world which is necessary in order to preserve the autonomy of these academic criteria of knowledge. This latter characteristic will be referred to, somewhat laconically, as "monasticism." There will be many socialists who will claim that both elements are in some sense reactionary, and will thus condemn us immediately. However, since it is one of our main purposes to argue that there are good reasons to regard them as far from reactionary we hope that critics will take the trouble to study our detailed arguments rather than content themselves with a "gut reaction" to some superficially " socialist" words and phrases.

Although there have been several Fabian pamphlets on higher education in recent years, they have rarely been concerned with problems of alternative educational objectives. For example, the very useful *Planning for education in 1980* (research series 282) was concerned almost solely with structure and organisation. This emphasis is due in part to the widespread (and correct) belief that the content of education is not something with which politicians should interfere. It should not be thought that this pamphlet is concerned

with specific content; rather we are concerned with general values which govern that content, and we recognise that as these are necessarily affected by policy, they cannot be excluded from consideration. There is a second reason for the prevailing lack of concern with educational objectives; a pre-occupation with the extrinsic goals of the education system. Three of these extrinsic goals seem to us to pose a threat to the values we seek to defend.

First, there is the familiar socialist objective of equality of opportunity and social mobility through the education system, with which in itself we have no quarrel. Second, is the concern for industrial and technological progress. This is by no mean a monopoly of the left, nor are its effects confined to educational policy. The problem is the wider one that economic progress is so central to the achievement of many other social and political goals that it demands and acquires over riding precedence in all spheres of policy. Third, and less firmly rooted in the mainstream of Labour thinking on education, is the fashionable anti-élitism of the new left. This tends to derogate the value of academic achievement, and in its most extreme form, derides all academic work as a delusory ideology.

The pursuit of social equality has always been central to Labour education policy, and so it is appropriate that any critique should begin with some comments on this; although at the outset, one potential source of misunderstanding must be clarified. We are not asserting in any form the familiar right wing argument that the Labour Party's dedication to equal educational opportunity for young people of all backgrounds undermines the pursuit of academic excellence. This suggestion is particularly absurd since radical equalisation of opportunity in British

education is likely to make the system more meritocratic rather than less. Equality of opportunity would be based on merit rather than on family background and wealth. In recent years the party's egalitarianism has been focussed on the creation of a comprehensive system of secondary education. In case what follows should be taken to imply otherwise, perhaps we should say now that we both strongly support this policy. The party has, however, become somewhat imprecise in its thinking; it has become so pre-occupied with the social purpose and consequences of the comprehensive idea that it has lost sight of the powerful educational justification for it. The primary objective of the comprehensive school was and is to provide, within a larger and more flexible organisational framework, wider choice of subjects and standards, so that the infinite variety of children's needs and abilities can be more closely matched to instruction. Greater equality is both a condition for the organisation of such a school and, with luck, a consequence of its success; but to lose sight of the main objective, the pursuit of excellence in a great variety of ways and at all levels, is in the long run to prejudice the chances of success. It must be remembered that the tripartite system stood condemned on educational as well as social grounds. As the Crowther report stated in 1959, as many as 42 per cent even of those in the top tenth of measured ability, left school at 16.

At tertiary level, the application of the comprehensive idea bears hardly any relation at all to educational aims. In fact, it is difficult to clothe the concept with any meaningful content. Since education after secondary level takes place at such a variety of different levels and with a great diversity of skills and specialisms, the unity essential for a comprehensive system is lacking.

Indeed, people who speak of such a system do not really include everybody in the age group within their comprehensive, but just those reading for or similar qualifications. Further, the concept of an equal education is an elusive one at the tertiary level, unless it refers merely to the physical conditions in which the education takes place. In fact, when people speak of extending the comprehensive principle to the tertiary sector they are really not thinking of educational goals at all. They are concerned with the wider social functions of education and access to it. Equality of educational opportunity has become identified with egalitarianism in the minds of many socialists, and this increases resistance to the idea that equality of opportunity is not the last word in a socialist educational policy. Certainly a policy of reducing inequalities in access to education has egalitarian aspects; it enables people from all backgrounds to have the same chance of enjoying the process of education, and puts them in the same position to enjoy the advantages in later life to which education is an entrance. It must be remembered, however, that in this latter function education also creates and, moreover, legitimises inequalities.

Within an unequal society, education may become more egalitarian in its recruitment, but the people who have passed through the educational process are, on that basis, able to make an effective claim for high social status and economic reward.

As educational qualifications become more important in allocating people to high occupational status, so this rôle of education grows in significance. The end result of a society where inequalities of access to education are abolished is not necessarily an egalitarian society; it is merely one where social

élites are legitimised by powerful meritocratic criteria. All this was pointed out long ago by Michael Young in The rise of the meritocracy, but it bears repeating now. Of course, this does not mean that one ought not seek eliminate inequalities of opportunity, but it should serve to moderate our obsession with this goal and make us ready to entertain alternatives. This point is seen in sharper relief when placed alongside the other dominant strand of Labour Party thinking on education, the creation of an educational system more responsive to "social needs", by which ambiguous phrase is normally meant the demands of productive economic enterprise.

This objective reached great prominence the mid-'sixties. Essentially involved making the educational system responsive to the requirements economic planning by private and public corporations, and the policy could thus well have been the brainchild of any major political party; but the policy acquired a Labour garb because it was associated with slogans about modernisation and attacks on the "old fashioned" which were at the time confused with attacks on political Conservatism. Only rarely have Labour spokesmen following this line devoted much time directly to attacking the monastic concept of the university, but it is by implication under attack for being "fuddy duddy" or wasteful, for being associated with a pattern of high culture normally considered reactionary, or for simply not contributing to an improvement in the balance of payments.

Something of this atmosphere was caught in Harold Wilson's celebrated speech on "Labour's plan for science" at the 1963 annual conference when he said of Labour's (then) plans for "a tremendous building programme of

new universities": "... let us try and see that more of them are sited in industrial areas where they can in some way reflect the pulsating throb of local industry, where they can work in partnership with the new industries we seek to create." In 1965 the National Executive Committee's annual report to the Labour Party conference reported proudly that the universities were being brought closer to industry.

This whole mood related the plans for the greater industrial involvement of higher education with aspirations towards equality of opportunity. A modern economy, it was argued, needed vast numbers of educated people; we could no longer manage with a small élite. Also, the education needed was that rugged technical variety, whose virility matched the "pulsating throb" industry, in contrast with "effete" high culture associated with the traditional universities. None of these views were taken to their extreme by the Labour government, but their extreme articulation does represent an important strand in educational thinking within the party. Such thinking, combined with the policy of falsely identifying equality of educational opportunity with egalitarianism, produces the following concept of the goal of educational policy; the creation of a meritocratic élite trained to take its place in the economic hierarchy with an education closely tailored to industrial needs. To ask "is this what socialism is about?" should be a rhetorical question. The fact that we fear there are many within the Labour Party who would answer "yes" is what motivates us to write this pamphlet.

The third threat to educational values is far less well entrenched in orthodox thinking than the previous two; but it has grown in importance in recent years among young people on the left.

This threat has a strange relationship with the other two. It is at one with the equalisation of opportunity, but its relationship to the issue of the social responsiveness to be demanded from the universities is far from clear. Indeed, one problem of this view is the difficulty of perceiving within it any clear concept of what education actually comprises and a lack of awareness of the conflicts that exist on this issue. ". . . we look forward to a society which will not draw a line between 'work' and 'education' in which, indeed, 'work', 'life' (as its antithesis) and 'education' have become meaningless distinctions." (David Page in Education for democracy, edited by D. Rubinstein and C. Stoneman). It is a view which is student centred and anti-élitist to the point where content, together with the notion of achievement and its assessment, is forgotten. This kind of thinking sometimes combines with the view of education that sees it simply as a means of reducing inequalities of opportunity. It is in this form that the advocates of democratic education have so far scored their only official success in the Labour Party; a resolution passed at the 1970 annual conference asking the national executive to "review the rôle of examinations throughout the education system, particularly with relation to opportunity." This virtually meaningless statement is not untypical of this line of thinking.

the economics of university expansion

So far the Conservative government has not really made any major departures in higher education policy. Like the Labour government before it, however, it is likely to be forced to show its hand on policy priorities by the insistent pressure of expanding demand for higher education. In its statement on university development in the

seventies, the Committee of Vice-Chancellors and Principals said: "On the 'Robbins' basis of relating entry to numbers of qualified school leavers, the new projections suggest that the number of full time higher education places in England and Wales in 1981/82 would be some 727,000. If universities were by 1981 to be taking (as in 1963) about 53 per cent of all school leavers with two or more A levels, and if allowance is made for other entrants and for numbers in Scottish universities, the number of university places in Great Britain in 1981 would be over 450,000. This would represent something like a doubling of student numbers in a decade."

Higher education has long since passed the period when its total cost was so small that no nasty choices about spending had to be made. Given the many other deserving objects national expenditure, it therefore seems only realistic to expect any government to look for ways of ensuring that the total cost of higher education rises more slowly than the number of qualified entrants. Financial pressure imposes the need to make choices, to select between alternatives; such is the context within which educational debate must now take place.

In these circumstances, it is essential to do something which many socialists seem too squeamish to contemplate; to look at education as an economic activity. To do so is not to pass judgment that economic pressures must over ride other considerations, but precisely to clarify the nature of these pressures, and indeed to determine the limits which must be placed on the operation of market forces. Economically, education can be viewed either as consumption or as investment; and if as investment, then either as social or private investment. Varying national

income accounting conventions in different countries reflect this ambiguity. Education is, of course, all of these things simultaneously, but which characteristic is to be considered paramount is not entirely a factual question. It rests ultimately on value judgments. These are expressed in political decisions, and different judgments have differing implications for policy.

The social investment view of education stresses the economy's need for highly trained manpower. Society as a whole, the argument runs, reaps the benefit of investment in education, in the form of increased incomes and growth. other words, investment in education yields extensive externalities, and this is used as a justification for public funds bearing most of the cost of education, rather than relying on private individuals financing themselves. fact, externalities cannot simply assumed; there is a great deal of evidence that most of the "profit" on investment in higher education is garnered by the individual in the shape of higher earnings over his lifetime. To count this also as an externality accruing to the community is double counting. Nor are cases of low paid graduates necessarily an exception to this assertion; it cannot merely be assumed that they are worth more to the community than they are now paid. This perspective on education is frequently uppermost when student grants are being discussed. What has just been said suggests that the economic argument for student grants is largely invalid, which is not to say that we are opposed to grants; rather it is to say that a socialist defending them must support his case, not by appealing to economics, but with social evidence, such as the deterrent effect of loans upon less well to do young people entering higher education. The question of student grants is but an aside, although an important one when considering education as social investment. More generally, from this perspective, the educational system can be seen as a filtering mechanism allocating manpower to slots in the economy.

It seems generally to be thought legitimate for a British government to attempt to influence the workings of this mechanism; for example, the government's right to encourage the supply and expansion of scientific and technological courses, as against arts and social science places, is not challenged even though the trend of demand from students has in the last decade been in the opposite direction. Even so, the extent of government direction is limited, and does not seem to be linked to a really detailed assessment of the needs of the economy. For example, Lord Todd in his 1970 presidential address to the British Association expressed the view that: "already the expansion of numbers in our universities has reached a point where the inappropriateness of the system to many of the entrants is evident. That is why we hear so much about bringing the universities closer to industry not only at the graduate level, but also by giving a more industrial orientation to courses in undergraduate technology and (through management studies) the social sciences. We must remember that in this technological society we need a relatively small number of creative scientists and technologists to generate new ideas and a vastly greater number of technicians whose task it is to apply these to practical use. It is nonsense to suggest that both these types should have the same training . . . [But] somehow or other we seem increasingly to equate higher education with traditional university education and to regard the obtaining of a BA or BSC as the goal to which all must strive."

Lord Todd proceeded to discuss the consequences of this "degree-fixation" for a frustrated white collar class of degree holders doing technicians' jobs, and attributed the "drift from science" partly to this too; but the situation for non-science graduates is rather similar. as Christopher Price has pointed out. "It is hard to slog away at medieval history or romance literature for three years, to be told that your only chance of a job is in a bank or an insurance office, or in the executive grade of the civil service—the sort of job that your friends who failed to get into a university took at the age of 17 or 18." (New Statesman 19 February, 1971). Price is no more than a Job's comforter when he goes on to say: "the job market is sensitive enough to regrade jobs to suit qualified output. If the supply of good 18 year old leavers dries they naturally turn to graduates." If education is to be seen as an investment by and for society. these points surely indicate the need for deep consideration of the kinds of higher education which are in demand.

Whatever the merits of Lord Todd's argument, however, British governments have shrunk from the full implications of his view. That would lead to something akin to the Russian system, where admission to highly specific tertiary education courses is regulated in accordance with the requirements of the economy, and little scope is left for individual choice, let alone mobility between courses. Such a process would no doubt be considered illegitimate interference with liberty.

Education is also a private investment; for income foregone, time and money invested in youth, do usually pay off in higher earnings during working life. However, the student who approaches his university education chiefly from the viewpoint of payoff will soon grow

impatient and be baffled by the dubious economic utility of many aspects of his course. He may well be right to have doubts; the beginnings of a graduate unemployment problem may be only the tip of an iceberg of under employment; the frustrating misallocation of human resources to which Lord Todd referred. Private educational investment decisions are, however, made in an imperfect market distorted by at least two factors; degree fixation and inadequate information. If there is any truth in the suspicion that specialised technical qualifications of the types taught at polytechnics are among the better investments, then it would be in everyone's interest (including the universities') to have this widely known by sixth formers. A further complication is that the gestation period and subsequent waiting period is so long, that the relative advantages of various occupations change, and the sixth former is in effect shooting at a moving target.

Finally, education is simultaneously a form of consumption; that is, it can be seen as something to be enjoyed and valued for its own sake, not as a means to some economic end. It is a means of improving the individual's chances of a satisfying life. We subsume under consumption the possibility that education is an investment which yields nonpecuniary returns, either to the individual or in some way externally by raising the quality of community life. Such benefits are not easily quantified and valued, but that does not mean they do not exist. Even if the strictly economic advantages of higher education could be shown to be negligible. there would no doubt be considerable demand for it.

Socialists have been traditionally rather sympathetic to this view of education as a value and end in itself, and certainly it has fewer alarming implications than the investment view. Yet there is one danger. As egalitarians we are inclined to argue that like other goods, education should be distributed as equally as possible. If we do so, we must first meet the profound question raised by Jacques Barzun: "does social equality depend on the possession of identical knowledge?" It may be tempting to answer rhetorically yes; but common sense dictates otherwise. Barzun points out "the error of supposing that because all good things are for everybody it follows that all things whatever are interfused and all distinctions are false . . . If indeed it is true that 'learning is living' . . . soon people forget that learning requires attention and assiduity" (The house of intellect, 1959).

The point has been of considerable practical importance in the history of British education. For example, as Olive Banks has shown (Parity and prestige in English education), attempts at introducing technical education at the postelementary school level in earlier years of this century constantly failed, as teachers, parents and various educational lobbies sought to make any extension in education correspond to the ideal of élite liberal education modelled on the public schools. This problem reveals the major difficulty in attempting to define an equal education. Eventually it comes down to such banalities as; "if the children of the élite are taught Latin, then an equal education for all must mean the teaching of Latin to all." The problem is made more intractable by the fact that the goal of equal education, conceived in these terms, will never be achieved. Education will always reflect in some way the requirements of the division of labour. Again this indicates the certain failure of making education the major spearhead in the drive towards an egalitarian society. Although one can, through educational policy, reduce some of the inequalities in access to education, the education system is bound in the long run to reflect the inequalities that exist in the wider society. The attack on these must come from other social policies.

In the end, it has to be recognised that there are in effect two stages to the educational process. During the first stage, neither the child nor his parents has much choice as to the content of his education. Most teachers would consider their aim to be broadly to enable the child to adapt to the society in which he lives, to give him the skills and knowledge necessary to lead as satisfying a life as possible. At this stage, it could be agreed, education should be distributed equally and as of right. The second stage is one where the educational process branches. Students must proceed to a course appropriate to their abilities and ambitions. Individual choice must be important here; but there will inevitably be some element of selection, as abilities and aptitudes are manifestly not equally distributed. The question is, when does the first stage end and the second begin? The whole dispute about the eleven plus and comprehensive education can be seen in effect as a difference of opinion as to where the transition should take place. The controversies now proceeding concerning tertiary education can be seen in part as posing the same question; at what stage must discrimination be made? Merely to sloganise about "higher education for all" is naïve and unhelpful in advancing our understanding of the choices which will have to be made. It is very tempting simply to extrapolate our advocacy of comprehensive schools to the higher level, as Professor Pedley (Inaugural Lecture, University of Exeter, 1969) and others have done already in discussions about the comprehensive university. The result might be neither comprehensive nor a university.

2. purposes and pressures

From time to time, the rate of expansion of higher education, and the sheer magnitude of the resources devoted to it, precipitate a bout of obscure discussion on the purposes of education. Of course, education has no single purpose and justification. The conflicting pressures experienced by the tertiary institutions stem in part from the simultaneous pursuit of several different but important goals. The major purposes include the following.

Education is an important means whereby people qualify for high status occupations. In the past in Britain this preparation has taken the form of a general education, particularly in the humanities, which is considered to train both the mind and the character in diffuse ways for exercising domination and taking decisions. Several different social functions are provided by education of this description. Because of the inequalities in access, education has largely assisted the offspring of highly placed parents to maintain the family's position, but the universities have partly replaced the medieval church as a channel of social mobility for people who have been able to rise in status through gaining access to education. Finally, as the importance of paper qualifications grows, so education legitimises its graduates in élite rôles.

Education sometimes provides a vocational preparation. Whereas for high status occupations the student is given a general cultivation of his intellect (and perhaps also his social graces) and is initiated into a culture considered relevant to the holding of élite positions, vocational preparation gives him specific techniques and expertise. In Britain this form of training has normally been segregated from the universities and takes place in such institutions as inns of court, teacher training colleges, teaching hospitals and a range of

technical institutes. However, in recent years, mainly through the development of diploma courses, more directly vocational activities have begun to take place in the university. As occupations become increasingly specialised and demanding of technical expertise, while the regard for general intellectual and social cultivation is reduced, the pressures for this form of education are likely to increase while demand for a general education in the humanities declines. Whether this means a change in the nature of the universities or the growth of alternative institutions is an important issue of educational debate.

Education may also be seen as facilitating the development of the individual's capabilities, regardless of the extrinsic purposes of such an education. A man is, in this view, to be educated because he is educable. This may be regarded as "education as a mass consumption good," "education as a social service," or as "the ideal of the educated man" depending on one's choice. In contrast with preparational or vocational training, this is the concept of education as an intrinsic goal. It is therefore the most idealistic approach to education, and if it is linked with an aspiration to extend this good to all who are capable of enjoying it, it becomes an extremely radical idea. Surprisingly, perhaps, this radical ideal was proudly placed at the head of the list of educational objectives adopted by the Robbins report. The relationship between these three concepts is interesting. It is quite possible, and an entirely happy solution, for a student to achieve intrinsic satisfaction in his studies while also learning things which are of value to him in his subsequent work. Such a result is perhaps more likely within a general liberal education than in specific vocational training. Evidence certainly exists for this view in the continuing tendency, despite official propaganda and the

better prospects of subsequent employment, for students to neglect the applied sciences for the social sciences, humanities and pure science. However, one should not forget that many students also complain of a lack of relevance in purely academic study, and feel happier in an education whose relevance to their future rôle is constantly apparent to them.

Moving from the purely educational tasks of institutions of higher education to those concerned with the cultivation and advancement of knowledge, there is first the traditional function of the preservation of "high culture." Historically this has been highly important, but it is rapidly declining as a result of two major modern forces. First is the fragmentation of culture itself. The specialised disciplines of the modern academy, whether they be microbiology or monetary economics, do not recognisably relate with one another to form a coherent cultural whole, as did the higher learning of earlier centuries. It is difficult enough for specialists in one subject to understand even the vocabulary of those in another. For many years the ancient universities protected themselves from the implications of wider social change by turning their backs on the industrial society and its distinctive characteristics. For some decades now, however, this position has been untenable, and at the present time the barriers are finally being broken down. The second source of the disintegration of high culture is the growth of mass and popular culture, which is brought to the university by its students, who are increasingly patient with its traditional pre-occupations and styles.

Perhaps most important to the majority of British academics is the advancement of pure knowledge as a function of higher education. Along with the

preservation of high culture, this may be one of the activities which is likely to be despised as the "ivory tower." However, since the tradition represented here is based more strongly on the pure natural sciences than on the humanities and classical studies on which high culture has depended, this function is more acceptable to an industrial society. It may be accepted that pure research will, at one remove, have likely practical applications. Like the preservation of high culture, however, this tradition depends for survival on the acceptance by the wider society that academics should be left alone to plough their furrow, to decide how they should spend their time and to allocate their own priorities. It also depends, within the university, on an acceptance of the dual nature of the academic's rôle: teaching and research.

Next, there is research undertaken for outside agencies, whether industry, government or some other body. This is a function of higher education institutions which has grown to enormous proportions in the USA, mainly in connection with the defence industry, where it has been a major factor in the general massive growth of higher education and research. For a long period, the US government was prepared to sponsor pure science from which applications would ultimately flow; in such circumstances there is little difference between this and pure research for its own sake. Recently, however, under the pressure of budgetary constraints, the demand has increasingly been for narrow sponsored projects on specific questions. The nature of such work and the freedom of the academic researcher then changes considerably. There has been far less sponsoring of this kind in Britain, but it has increased in recent years. When carried out on a large scale this kind of work is a direct threat to the values that underpin pure research.

Finally, and similarly challenged by the growth of sponsorship, is what might be called the monastic rôle of the university, or what A. H. Halsey and M. Trow have called the "retreatist" concept of the academic's rôle (The British academics, 1971, p. 95). In many ways this is a similar concept to that of pure research, but the emphasis is somewhat different. As the term "monastic" implies, one is here concerned with the licensed heretic; the man who wishes. in exchange for certain limitations on his own power, to be free from pressures to conformity in the wider society. He seeks to withdraw in order to obtain a critical perspective. If the pure research model is particularly appropriate to the physical scientist, then perhaps this concept of the academic rôle fits the social scientist best. It is a rôle which in a free political environment, such as that enjoyed in Britain, it is easy to take for granted; it may even be despised by those who constantly ask of academic work the question "what use is it?" However, the dangers of neglecting this form of intellectual activity should be clear to anyone who is aware of the need for the articulation of views and areas of interest which do not simply reflect those of the power holders in the wider society.

There are several points at which conflict can exist among the different functions of higher education. This does not mean that peaceful co-existence is impossible. Indeed a central feature of our educationel system as it has emerged is its ability to maintain within itself these very different features. The problem comes when there is a major disruption to the balance, when some of the functions seek to expand at the expense of others.

This process occurs as a result of different kinds of pressure being imposed upon the universities and their work. A first important source of pressure is the "democratic" demand for more and more access to higher education. The estimates of the Robbins report on the likely expansion of higher education have constantly been exceeded. So far there is no sign that this demand will decline, although the possibility may arise, if there is a continuation of the current economic depression, with its concomitant graduate unemployment.

student pressures

The direct result of this major expansion may be reflected in the demands students make of their academic institutions. The growth of higher education does not involve the lowering of admissions standards. Certainly, the increasing proportion of 18 year olds successfully taking "A" levels indicates that there is a very large pool of talent. (At least, it would be certain were the GCE examining boards less cagey about their marking conventions; if they "mark to a curve," the rising number of passes might be compatible with falling standards). However, it does mean, presumably, that people of a given ability who would not previously have gone into higher education will do so. Entry into higher education will become routine for children of a certain ability level. This is likely to mean the admission of students who are less motivated to undergo an academic education, people who would perhaps have chosen to exercise their abilities in other spheres. There is therefore a problem of motivation in the form of an increase in the number of students seeking extrinsic rather than intrinsic rewards from their education. This will be strengthened as the importance of higher education for career opportunities become more widely understood. To the extent that students are able to bring their preferences to bear,

they may be expected to shift the balance of the university's functions away from research interests, particularly those concerned with the abstract advancement of knowledge, and towards teaching, particularly in its more vocationally related forms.

Paradoxically, however, there has also been evidence, in the outbreak of student unrest, of directly the reverse phenomenon; of students resenting the increasing involvement of government and industry in the university. The concept of the university as the "knowledge factory" producing middle managers has been attacked bitterly by the student left. Of course, it may be argued that this opinion is limited to an unrepresentative fringe, but it is supported in a less explicit way by the swing away from technological courses and towards the arts and social sciences. Students at the present time are in a state of considerable ambiguity. While some resent the abstract nature of their education, others regard any stress on career preparation as a denial of the idealised goals of liberal education. It is quite possible that there should be a genuine division among students on these issues, a division which reflects the changing rôle of higher education within the wider society. In this respect Britain is by no means alone. It is significant that of the many explanations of French student dissent which have been published, one has attributed the revolt to the lack of relevance of students' academic courses to their future careers, while another has spoken of students' resentment at their education being merely career preparation. (P. Bourdieu and J. S. Passeron, Les heritiers, and A. Touraine, Le mouvement de mai ou le communisme utopique).

The revolutionary students, while they do not directly threaten the traditions

of academic freedom and pure research, do make pleas for an involvement with the world of a rather different kind. They seek a political engagement of the university, forgetting that the price of the university's freedom is its abstention from adopting a political rôle. Were the revolutionary movement to become of long term importance in British universities, this factor could undermine the position in society of those institutions, as has happened to the University of California at Berkeley. However, this does not seem at present to be a particularly significant threat.

financial pressures

A further consequence of the great increase in student numbers is the massively rising cost of higher education. This has two consequences of importance for the balance of the university's functions. First, government becomes interested in keeping costs as low as possible, and therefore inquires more closely than in the past into the ways that money is being spent. Second, the growing financial importance of higher education within public expenditure generally increases the tendency for authorities, MPs, the press and other bodies to inquire into what universities are doing, and to feel that they should be accountable in a variety of ways.

These developments have had certain concrete results in recent years. The University Grants Committee (UGC) has moved slightly away from its happy traditional rôle of buffer between the universities and the Treasury, and has been shifted to the Department of Education and Science, where it is coming to see itself as responsible for the implementation of government policy. In their report, *University development* 1962-67, the UGC recognised the concern of "public, press and

parliament "in the activities of higher education, and saw it as their task to give positive direction to the universities in response to national needs. The report freely admits that this implies "making positive judgments, an activity which goes far beyond the capacity of a buffer or shock absorber." This process of change in the rôle of the UGC (which is discussed in detail by A. H. Halsey and M. Trow in *The British academics*, chapter 4), has not yet reached its conclusion. The UGC's relationship to the universities is still in a process of transition.

In 1967 the Public Accounts Committee permitted to inquire into accounts of the universities, with considerable offence to the dignity of some university administrators. On narrower issues of cost, there was the famous letter from the Department of Education and Science to university vice-chancellors in 1968, inviting them to choose which of various potential economies they found most preferable or, perhaps, more realistically, least repugnant. A further instance was the report of the National Board for Price and Incomes on university teachers' salaries, which sought to apply criteria of productivity to the work of university teachers in an unprecedented attempt at intervening in the internal practices of higher education.

As Halsey and Trow (op cit p. 60-4) have pointed out, the growing cost to the public exchequer of higher education has two aspects. It is not simply a question of the universities spending much more public money; there has also been a massive increase in the proportion of university income which comes from the public purse, for, apart from those provided for the ancient universities, private endowments are now a quite insignificant source of university finance.

This issue has been a source of concern to some academics, and the reaction has spread right across the political spectrum. The new left, for example, considers that the death knell of the traditional concept of the liberal autonomous university has been sounded, while a group of distinguished academic gentlemen normally associated with the political right have attempted to establish a private university. The success of this latter venture is still very much in doubt; for given the enormous prestige of the established universities, and given the huge cost to students of attending a private university, will this enterprise succeed in being anything but a finishing school for those children of the wealthy who are not of sufficient standard to enter an established institution? Further, there must be considerable doubt whether an institution heavily financed by industry will be that much more autonomous than state universities protected by the tradition of respect for academic freedom. To draw an analogy with the ancient colleges of Oxford and Cambridge is misleading; a contemporary businessman is not the same thing as an archbishop four centuries in his grave. A less dramatic reflection of the general anxiety about the future of academic autonomy may be found in Halsey and Trow's sober assessment. "Thus the expansion of university studies . . . has almost completely eroded the financial basis of autonomy, converting the universities to this extent into state dependencies and thus placing the burden of maintaining academic freedom on the beliefs and sentiments of those who wield power in the modern system of government and administration." (*op cit* p. 64).

The pressure exerted by this important development in the economic position of universities is likely to be towards applied, "immediately relevant" work, and towards teaching, particularly that

teaching which will be vocationally relevant. The fact that, as yet, there has been no threat to the other activities of the university is a testimony to the power of the ostensibly fragile protection of "beliefs and sentiments."

industrial needs

Closely related to these arguments about the costs of higher education is another reason why government is likely to take an increasing interest in the affairs of the universities. Here the pressure from government itself is joined by the demands of industry and other consumers of both skilled manpower and the results of scientific research. In Britain, unlike the USA, industry has very few opportunities to lay its hands directly on the work of universities. (Robert Nisbet has recently traced the damaging effect of "the higher capitalism" on American universities, The degradation of the academic dogma, 1971). Significantly, at the one British university where industrial sponsorship has played a large and visible rôle (the University of Warwick) there has been trouble. Of course, the attempt by certain senior persons at the Rootes Group to interfere with the activities of a lecturer at the university were bizarre, caused national outrage, and in any case failed. This failure is evidence of the strength of academic autonomy, but it is also further evidence of Halsey and Trow's point; increasingly this freedom depends on beliefs and sentiments which counteract what would be the result of a simple relationship between finance and power.

More usually, industry in Britain depends for its influence over higher education, not on any sinister capitalist conspiracy, but on the simple and obvious commitment of all British governments to the cause of science

based economic growth facilitated by adequate supplies of skilled manpower. This was a central part of the Robbins argument for university expansion, and perhaps the major response to this pressure was the creation of the technological universities out of the former colleges of advanced technology. Although these institutions are far from being merely centres for technical studies, they do obviously have biases towards technological work and other matters of value to industry. The influence of industrial requirements over general university development can be seen in the direction of official policy over recent years.

The UGC described the process by which national needs are defined and transmitted to the universities in an annual survey. "It is natural that, quite apart from the general increase in the provision of university places, developments in the social and economic structure of the country should throw up new demands on the universities in particular fields or particular subjects.

These demands, if accepted by the government as national needs, are coordinated by the Department of Education and Science and are communicated to the committee [UGC]. It then becomes the committee's business, in consultation with the universities, to work out a plan for meeting the needs and, where additional costs are involved, to advise the government on these. The universities themselves fully recognise their responsibility for adapting themselves to national needs as they develop. This system works well, provided that the needs are formulated clearly, that the activity proposed is regarded by the committee and the universities as appropriate for university work, and that individual universities are left free to make their contributions to the needs in the way best suited to their own

particular circumstances" (Annual survey 1965-66, p. 12). Note the subtle balance between state pressure and university autonomy implied by this description.

Of course, it is not simply productive industry whose needs are taken into account; social work, medicine and teaching have all been important pre-occupations of the universities in their concern for manpower needs. Nevertheless, these are all indicators of the ways in which university autonomy and the character and balance of purposes of universities are being changed.

Further evidence of the power of industrial pressure is to be found in the UGC's memorandum of general guidance to universities on the allocation of the quinquennial grant 1967-72 (UGC annual survey, 1966-7, appendix c). The UGC announced that the numbers of postgraduate students provided for was smaller than many universities had wished. Four reasons were given for this, one of which was a fear that "the rise in the proportion of graduates who stay in the universities for post-graduate studies, rather than moving into teaching or the outside world, is greater than the country can afford at present". The number of graduates doing further degrees has long been a complaint of prominent businessmen.

The same memorandum also included the following item. "The committee fully recognise that a university has other objectives besides providing industry with ready made recruits and that much has already been done to promote closer collaboration with industry. But there is no doubt that it would be valuable if the universities collectively made a further deliberate and determined effort to gear a larger part of their 'output' to the economic and industrial needs of the nation."

Among the proposals offered by the committee to the universities on this was a shift to more vocational post-graduate courses and a greater emphasis on applied research than in the past.

Similarly, the Science Research Council (SRC) has shifted its emphasis away from supporting research students in pure science to those doing work on applied projects with industrial potential, although the majority of such work sponsored by the council is still of the pure variety (SRC annual report, 1969-70, p. 3). The balance is obviously shifting where university autonomy is concerned. Academics cannot really claim that decisions about the work that they should be pursuing are taken solely on academic grounds.

There is likely to be a further sharp turn against autonomy in the near future following the government's green paper The framework of government research and development (December 1971). This is concerned with future policy towards the scientific research councils. and contains papers from two groups. The first, headed by Sir Frederick Dainton, advocates measures based on the familiar pattern of research teams deciding their own projects but consulting closely with government departments on their requirements. The other group, headed by Lord Rothschild, proposes a radical change; those parts of the budgets for applied work which are sponsored by the medical, agricultural and environmental research councils should in future be given to the government departments who would be directly interested in the work of these bodies.

In place of the autonomous but cooperative academic researcher, the Rothschild report conceives of the relationship between government department and research council as that between customer and contractor. The balance of power is clearly intended to rest with the customer, for it is the government departments which will award and withdraw funds to the scientists according to the kind of work the departments want carried out. The report has some disturbing things to say about the inability of scientists, as opposed to civil servants, to assess research priorities.

The two reports are published in the green paper, but an accompanying official statement makes clear the government's support in principle for the customer/contractor idea. and proposes that consultation with the scientific community (to take place over the following seven weeks) should be about the details. Rothschild excludes from the proposed new system the SRC and SSRC. but social scientists may note with alarm the reason for excluding the latter is that it is "still in its infancy". Nor is this merely a question of a balance between pure and applied work. The issue is who should have control. As Lawrie Sapper, general secretary of the Association of University Teachers pointed out (Times Higher Education Supplement, 3 December, 1971): "Where will be the real freedom to investigate matters of public health, safety and welfare, the results of which may prove embarrassing to the government of the day?"

3. the defences of autonomy

All the main contemporary pressures on the universities operate in a consistent direction. One may expect that the concern for increased teaching, particularly with at least vaguely vocational objectives in mind, and the stress on applied rather than pure research, will continue and will grow in strength. Unless the trends established in the recent past are sharply and unforeseeably reversed, the problems and pressures they have caused are likely to be more acute in the future than they may seem now. Certain functions of higher education are threatened by these developments. First is the preservation of and initiation of new students into high culture. To the extent that this is a matter of the preservation of an élite life style, it is of little particular priority. The deeper and more significant issue at stake, however, is the content of culture in an industrial society.

More relevant, the continued health of pure research may be threatened if, as has happened in the USA, the priorities of researchers are distorted by the practical needs of their sponsors. It is difficult to know where to hold the line on this issue. A university system blind to the demands of industry, the social services, defence and so forth might be as indefensible as one where academic decisions are corrupted by external Early nineteenth century pressures. Oxford and Cambridge suffered infamously from the former complaint. There is danger that in over reacting against this, some socialist educationists will fail to perceive the dangers at the other extreme. They may make common cause with conservative businessmen in decrying the academic criteria, by which research is selected and individual disciplines develop.

A certain safeguard against abuse lies in the plurality of sources of sponsorship. It is not only industry which has

imposed priorities on academic research; in contrast, projects on poverty and educational priority areas, sponsored by government departments, embody rather different concerns. Obviously, universities would forfeit part of their raison d'être if they failed to respond to any appeals to carry out work of this kind. The danger comes when the needs of policy formulation dictate what shall be studied. An academic subject which allows itself to adopt external definitions of its problem areas and priorities will eventually lose that disinterested perspective which is after all what makes the academic approach valuable even to the outside sponsor. A good example of the way in which an academic discipline can be corrupted in this way is L. Baritz's study (The servants of power) of how heavy industrial sponsorship has distorted the perspectives of much American research in industrial relations.

At least pure research frequently has a utilitarian justification at one remove; people frequently feel that they may eventually be able to make use of what the scientist does. In the USA this has not prevented a drastic swing away from the support of basic research and towards more narrowly applied projects by both state and corporate sponsors. Yet even more difficulties arise with the non-scientific subjects, and with the social sciences, where the pure research function overlaps with a third function which is threatened: the monastic rôle.

Although the adage "he who pays the piper calls the tune" is not one which, mercifully, has governed higher education policy in Britain, the present position of virtually complete financial dependence on the state is disturbing. Student fees (paid by the LEAS except in the case of students on minimum grant) are ludicrously small in proportion to real costs, so that the deficit is

made up by the UGC, whose control is thereby strengthened. The committee of vice-chancellors suggested a modest increase in fees which would have given the universities direct control over 20 per cent of their fee income; yet even this modest proposal was unacceptable to the last government. Such an increase in fee income would give the university a useful margin of autonomy. However, even if some such reform were made, the major guarantor of the tradition of academic freedom will continue to be those "beliefs and sentiments." It is an important clue to the strength of this tradition in Britain that it has several different intellectual bases. The main ones seem to be the claim for professional status, the claim that intellectual progress requires freedom from constraints, and the more radical claim of the need for a critical retreat from the wider society.

professional autonomy

First, the academic's rôle is a professional one. The academic is a member of one of the longest established of the learned professions, along with doctors, lawyers and clergymen. Like them, the academic profession seeks to maintain its standards of talent and erudition by controlling admission to the profession.

It claims certain rights of monopoly; just as treating patients is a monopoly of doctors or pleading before the courts is a monopoly of lawyers, so teaching for and granting recognised university degrees is monopolised by the academic profession. Indeed, as Ben-David and Collins have pointed out (Student politics, edited by S. M. Lipset, 1967), by virtue of this power, academics also share control of admission to the other professions. Self governing academic corporations and associations seek to avoid direct lay interference by con-

vincing the public that the profession itself protects the public interest; the contractual obligation of the academic towards his client or employer is strictly limited. An academic can choose to teach, study or write whatever he considers relevant to his subject, so long as he does not transgress the ethical or academic standards of the profession. Moreover, insofar as professions act to maintain their economic security, such action is supposed to prevent the compromise of professional judgment under the pressure of material circumstances. This fear may seem far fetched in the universities, but we must recall that the PIB proposed to make remuneration partly dependent on a lecturer's popularity with his students.

On his professional status is based the academic's claim for freedom and autonomy in carrying out his duties. This autonomy must pertain to decisions both on the content and the standards of what is taught and studied. The academic accepts only the judgment of his professional colleagues on the content of his courses and its relevance to the wider discipline. As to maintaining standards of teaching, the necessity is clearest in faculties such as medicine, engineering, architecture and law, where the public's welfare and safety are potentially threatened by incompetence. Academics in other subjects, however, feel no less a sense of responsibility for the quality of their product, even if it does not directly threaten public safety!

A little knowledge is a dangerous thing, and second rate knowledge pollutes the social environment. Like other professionals then, the academic community claims the status of an autonomous élite, to which admission is gained by submitting to evaluation by the professional association and faculty. Once admission is earned, the academic must submit to continuing scrutiny of his

output by his colleagues. In these ways, the profession is organised to maintain standards, and the necessary autonomy of academic knowledge is underpinned by this pattern of social control.

The academic claim to professional status has found its most powerful institutional embodiment in the independence of the University Grants Committee, originally designed as the guarantor of academic autonomy. The rôle of the UGC may have changed somewhat in recent years. Nevertheless, it represents the academic in the same guise as the lawyer, the doctor and similar dignified gentlemen basing their case for freedom on their sense of responsibility, respectability and self regulation.

This is all very well and has proved very useful in securing the position of the universities, but an appeal to professional status is not one which socialists will receive with unrelieved enthusiasm. Significantly, some of the attacks from within the academic profession which have been made on university autonomy have come from socialists. It is an unfortunate characteristic of appeals to professional status that under the cloak of a concern for standards and so forth, there is often concealed a less defensible case for keeping a range of material privileges. In a period when national debate on incomes policy is likely to direct attention to some of these privileges and to ask searching questions about them, the claim to professional status is likely to have its dignity dented. The most flagrant examples of profes-sional privilege come from the legal and medical professions, but academics are not entirely free from blame. The dissolution of the monasteries seems less of an outrage if the monks can be shown to be more concerned about their silver plate than their devotions. This is a useful warning.

The second powerful argument for academic freedom is that it is only in conditions of autonomy that sound knowledge, undistorted by the pressures and special interests of sponsors, may flourish. "Academic man is a special kind of professional man, a type characterised by a particularly high need for autonomy. To be an innovator, to be critical of established ways, these are the concomitants of the academy and the impulses of scientific and scholarly rôles that press for unusual autonomy." (Burton Clark in Professionalisation, edited by Vollmer and Mills, 1966). This argument retains its strength even in an increasingly utilitarian atmosphere. It is only if he is left free to establish knowledge according to academic criteria that the scholar will be able to produce useful work. In other words, a condition of the academic's relevance is his right to be irrelevant.

the autonomy of knowledge

What, then, is the nature of these academic criteria, and why cannot the usefulness of the pure pursuit of knowledge be assessed by a layman? What seems to be distinctive of the pure academic orientation is the motive underlying it. The worth of academic activity cannot be entirely justified in terms of non-academic benefits. As Max Weber argued so forceably in Wissenschaft als Beruf: "science [that is any branch of knowledge] . . . presupposes that what is yielded by scientific work is important in the sense that it is 'worth being known' . . . No science is absolutely free from suppositions, and no science can prove its fundamental value to the man who rejects these propositions."

For these reasons, academic pursuits are extremely vulnerable to people who ask "what use is it?" One form in

which the question arises is in the demand for "problem orientated" teaching and research. The easy phrase problem orientated " is systematically ambiguous. The problem to which orientation is urged may be one which is regarded as a problem to and by society at large, outside the university; but problems also exist purely in relation to theories and to the current state of knowledge. Some subjects are less vulnerable than others because these two meanings of "problem" happen to coincide. The value of pure medical research is rarely questioned because it is obviously connected with health. People are rarely conscious of, and even more rarely question, the underlying premiss that health is a good thing.

Most subjects escape less easily. It is difficult to justify in materialistic terms the value of medieval history, classics or topological mathematics. Certain other subjects escape questioning because of public misunderstanding. For example, academic science, engineering and even law are usually less closely related than the public supposes to practical matters such as how to make plastics, build a dam or defend a murderer. The graduate even in these subjects has to learn after graduation how to apply his knowledge in particular practical situations.

Industrialists can now be heard grumbling that courses are not sufficiently practical. Sometimes, of course, outside criticisms of the content of university courses may be valid, but mostly they rest on invalid premises. Usually the object of a university course is to give the student a deep and broad understanding of the theoretical foundations of his subject. The value of this only becomes apparent when the graduate is confronted with a non-routine problem which has to be solved by returning to first principles.

As for useful fields of research, the future value of work which now appears to have no wider relevance cannot, mercifully, be predicted, and it is therefore well worthwhile permitting the academic to root around in his own corner without being made too responsive to current interpretations of social need. In the seventeenth century there was no demand from society for a pure theory of gravity, yet as an eventual consequence of Newton's publication of one, the first aircraft flew early in the twentieth century. Usefulness is particularly difficult to assess today, and, at least as far as natural scientists are concerned, this has been recognised to a certain extent, even in the USSR.

A valuable statement of this view appeared in the Report of the Science Research Council 1969-70. "In spite of the council's increasing concern to support work of economic and social value the nature of the council's responsibilities channels the majority of its funds and manpower into the support of fundamental long term research. This is sometimes called curiosity oriented research, which is undertaken without specific application in mind to distinguish it from mission oriented research where there is a specific field for possible future application. But as far as the research scientist or engineer himself is concerned, the interest and method in either kind of research are often the same and one may turn into the other at short notice. Basic research is of great intellectual and cultural interest but it also leads to advances in scientific knowledge, which may have practical importance in the long term and it provides an indispensible training at the post-graduate level in universities." The report went on to give examples of research which had had eventual practical implications that could not have been foreseen at the time they were originally carried out.

Few people are likely, in practice, to quarrel with this view, and evidence of its wide acceptance is seen in the volume of support for pure research; but it is necessary to remind those responsible for educational policy that a necessary condition of this freedom is the continuing availability of generous funds, channelled through bodies which allocate resources on purely academic criteria, and on whose committees the decision makers are predominantly academics. In Britain this means bodies like the UGC and the research councils. There must be no policy of making a major shift in the burden of finance to directly sponsored applied whether from the state or from industry.

monastic autonomy

Finally, there is the monastic concept of the university, or what Halsey and Trow call the "retreatist" view. They assert that this is a very much minority view among academics, though it is a minority with which they themselves identify to a large extent. On the other hand, Eric Robinson in The new polytechnics contrasts the new polytechnics with the universities, and argues for the eventual triumph of the former as the dominant model in British higher education: "... the essential feature of the polytechnic as an urban community university, as a people's university, must be its responsibility and responsiveness to the democracy rather than its insulation from it." (p 39) The first attack to be made on such a remark concerns the dangerous identification of the demands of the state with those of democracy. This is all very well for a political slogan, but if we are seeking to determine to which powers institutions of higher education should be responsible and responsive, it will not do to work with such a facile model of the origins and direction of state power. However, the attack on Robinson must be taken further. Even if the powers that operate on the university are those of a genuine democracy (whatever that might mean), still the university ought to be insulated from them. That which the mass believes at any particular time to be necessary or useful or worthwhile is not the main criterion which should guide the activities of academics. In particular the position of unconventional views, research into areas which many people would sooner leave uncovered, the exploration of unorthodox issues which public opinion will consider either irrelevant or inopportune, are all activities which must flourish if both progress and intellectual criticism of the status quo are to be possible. Increasingly in a complex industrial society the construction of alternatives of various kinds depends on sustained intellectual effort; the rôle of the university therefore becomes very important. Academic life has to be insulated from the insistent conventionality of democracy and other powerful forces, if this rôle is to thrive and prosper. The transformation of British universities to Eric Robinson's ideal would be the modern equivalent of administering the hemlock to Socrates.

The case for and against autonomy on these grounds cuts rights across conventional political boundaries. The hard utilitarian men of the right who want public money spent only on profitable activities, join forces with the technocrats on the left who have translated socialism's rhetoric of popular control and social ownership into a demand for state power over potential economic resources. On the other hand, there are conservatives who believe in liberty and freedom from state power and find themselves in alliance with that section of the left which stresses plurality, diversity and the right to be unorthodox and challange existing institutions.

Although British Labour governments have never in any way threatened the autonomy of British universities, there is an element within the party which would gladly adapt the theme of public ownership to them. Interestingly, the rise of an anti-centralist new left in recent years has provided a healthly counter weight to this view. It is, however, extremely unlikely that the new left is willing to accept the necessary conditions for true academic freedom; a certain element of minority exclusiveness in the university's position, and an acceptance by the university that, as an institution, it abstains from the political arena. It is important to note that the cases of new left sympathisers being dismissed from posts in universities over the past three years have in each instance been dismissals for participation in (usually student centred) revolutionary activity, not for their academic work. There has been a great misunderstanding on the new left of exactly what academic freedom comprises. It is a right to do research and undertake scholarship on any subject chosen as relevant by the academic; it is not a right to act without constraints. Those who insist on the unity of thought and practice are operating on assumptions which have not been used in constituting the basis of academic freedom in British universities.

British socialists have tended to forget that knowledge and education are forms of power; our study of the sociology and politics of education have been so pre-occupied with the issue of equality of opportunity that these other dimensions have been overlooked. Those able to sponsor and command the development of research and study in certain directions secure an extension to their power, One therefore needs to ask which groups are able to do this, and to what purposes do they put their command over knowledge? One also needs to

remember that the pursuit of knowledge must also be allowed to remain a refuge from power, a place where men can escape from the relentless tendency of large scale organisations to buy, control and plan human activity. As the university becomes increasingly invaded by the tentacles of state and industry it is particularly important that we preserve places of sanctuary from their grasp.

The American left has been perhaps more appreciative of the university's rôle as a refuge from industrial society than have British socialists. For Americans Clark Kerr's image of the industrial multivarsity has become an all too evident reality; and the American left is not burdened with a concept of the autonomous university which is associated with closely traditional Oxford and Cambridge; an important source of anti-university sentiment among the British left. It is interesting that two very different contemporary American writers have looked to the university, somewhat in desperation perhaps, as a source of alternatives and criticism in a society increasingly dominated by economic and technological goals. In the closing chapters of The new industrial state, John Kenneth Galbraith sees the university as a potential source of cultural variety and continuing innovation and rethinking in the contemporary world. In *One dimen*sional man, Herbert Marcuse, whose vision of the industrial state is far gloomier than Galbraith's, nevertheless manages to see the university as the source of future challenges and alternatives. True, he is concerned there more with students than with the university establishment, but it is also true that Marcuse criticised the US militant student movement for attacking the universities per se; they were, he said, one of the last guarantors of freedom left. Marcuse has, since then, been relieved of his post at the University

of California as a result of pressure from the democratically elected government of Ronald Reagan. The University of California is responsive to the democracy.

4. the binary system

In dealing solely with pressures which have affected the universities, some of the most important changes of this nature in British education have so far been ignored.

Ensconced as a major element in our structure of higher education there is a set of institutions which are, in theory, responsive directly to official policy, which are intended to have close links with industry, and where there is a heavier emphasis on career orientated teaching than on research. Furthermore, these institutions are likely to be the fastest growing sector of higher education over the coming years. These institutions are, of course, the new polytechnics, the non-university half of the binary system. In a way the system is not "new" at all; many of these polytechnics, or their constituent colleges, have been teaching for degrees for years. What is new is the creation of major institutions by the amalgamation of existing colleges in order to prepare them to bear the brunt of a great expansion in higher education, and the decision that these polytechnics should be institutions of higher education in their own right, not potential universities.

The principles of the binary system were laid down by Anthony Crosland, when he was Secretary of State for Education and Science, in major speeches at Woolwich Polytechnic and at Lancaster University. First, the expansion of higher education could not be continued at the level of cost normally associated with the universities. Second, the government sought a sector of higher education which would be more responsive to public control than the traditions of the Third, if the universities allowed. government was to sponsor future educational expansion it would need to ensure that it took place in a sector more directly linked to the production

of people qualified for skilled rôles in industry and administration. Crosland rejected the solution of "institutional mobility" on the grounds that it would encourage the polytechnics to ape the universities by discontinuing their vocationally orientated courses which, whatever their prestige, are so valuable to the country. In other words, the new polytechnics were to be strong on teaching, particularly, but by no means exclusively, with a vocational orientation; and to the extent that they did research it would have a bias towards applied work. They would be weak on traditional cultural initiation on the university model, and on pure research and monastic activities.

Much of the controversy which surrounded the binary policy related to Crosland's rather simplistic distinctions between different kinds of education. As the policy took practical shape much of this confusion has been overcome. However, certain irreducible features remain and cause difficulty. Essentially the conflict boils down to this: can the structure of higher education respond to the new demands being made on it while at the same time maintaining a strong emphasis on the more vulnerable features of the universities, without some form of institutional distinction being made? The problem remains even if the distinction is seen as a matter of emphasis rather than a clear segregation of functions. Any resolution of this dilemma involves costs.

One must either decide not to support expansion (a position which is held by few of the opponents of the binary system), or one must believe that the pressures for change can be resisted, and that higher education can ignore the demands of government and industry. This is a tempting stance to adopt, and one which is probably attractive to both the extreme left and diehard traditionalists, but it is not a practicable position to take in an advanced industrial society. It is extremely unlikely that such a stance will be adopted by those in authority in higher education, and even if it were it would result in the universities becoming isolated backwaters starved of money and talent.

Finally, of course, one may decide that one *wants* such university functions as the bias towards pure research and the monastic rôle to be squeezed out.

the comprehensive university

Why, then, has Crosland's binary policy aroused such opposition particularly on the left? The fact that any distinctions have to be made, that any selection takes place, may be most unpalatable to the Labour Party, which has just won the intellectual battle for comprehensive secondary education, if not succeeded in implementing it. The fear now is that, as it becomes more and more taken for granted that a large proportion of 18 year olds will proceed into some form of tertiary education, the inaccuracy of the selection procedure for universities may become almost as wasteful and stigmatising as the old eleven plus. From this fear stems the case for a comprehensive university, in which all kinds of tertiary education would be available within the same institution. Much as one may sympathise with these fears, the case against the comprehensive university, is incontravertible.

One difference between selection at eleven and selection at 18 is that after 18 the directions in which education may proceed are manifestly more varied; everything from actually discontinuing education, through a bewildering array of sandwich and vocationally orientated courses, to the purely academic study of such subjects as

classics, history or literature. content of courses in the post-1944 grammar, secondary modern and technical schools clearly overlapped a great deal. In principle, the grammar school course was academic, while the other two branches of the tripartite system were vocational in intent; yet in practice the courses differed largely in standard. In contrast, the truth must be faced that there is little overlap between an apprenticeship course and, say, a degree course in history. If that truth is unwelcome, and if it is argued that the apprentice should indeed have the chance of learning history, this amounts to little more than the belief that everyone should be entitled to so many more years of general education. (At this juncture, it may be appropriate to remember that Britain has still not succeeded in raising the school leaving age beyond 15). The basic fact still remains that however long we keep a whole age group in full time education, the exigencies of industrial society dictate that, in the last stage of the educational system prior to the exodus into the job market, diversity of courses must be at its maximum.

The relevance of all this is that those advocating the comprehensive university do not, in any case, have in mind provision for a whole age group, but only for those continuing in fulltime or nearly fulltime formal education. The proposal therefore boils down only to drawing a line of division at a different point in the range of 18 plus alternatives.

No doubt selection procedures at 18 are to some extent inaccurate, but they are presumably less dramatically so than at eleven, for university entrance is the culmination of a series of selection procedures which have occurred even within a comprehensive school: selection for "O" and "A" level courses and attainment within them. There is an

unanswerable case against the eleven plus; there just are not two or three kinds of child, and there are late developers. After 18, on the other hand, there is genuine diversity in the kinds of education which people might want to follow; and as for late developers, how late is late? The handicaps to attainment stemming from family background and inferior schools might be moderated by action to equalise social provision, but can scarcely be corrected by tertiary institutions.

The minimum viable scale for a university offering only the present academic studies is usually put at around 5,000 students (many of our present ones are below this), and this minimum is rising. So how big would a comprehensive university have to be? Probably about 25,000, and very likely more; and, if it were of such a size, it would practice consist of a federation separate institutions, with most of the problems of the previously unfederated ones. London University is a federation now, and its structure has not prevented distinctions of prestige being drawn between colleges. How much more would this be true of the comprehensive university with much more salient between its courses differences instruction.

Where comprehensive schools have been established at the secondary level, a familiar problem is creaming by surviving grammar schools in the same catchment area. Were a system of comprehensive universities to be created, there is no doubt that by a typical British compromise, Oxbridge, London and a few other major universities would still be allowed to cream the rest of the country, thus re-creating a two tier system. It is presumably with this threat in mind that Professor Robin Pedley makes a concomitant of his version of the comprehensive uni-

versity the denationalisation of the university system. He envisages local universities which all students in each area would be compelled to attend. This aspect of the Pedley model would be likely to lead to a dilution of academic standards, greater regional discrepancies (and perhaps parochialism), a disruption of the specialising division of labour between universities, and a diminution of the range of choice in tertiary education given to the student. It would be paradoxical if comprehensive secondary schools were to enlarge the range of provision available, while the comprehensive university diminished it.

A further danger of proposals for the comprehensive university, and of the essentially similar one of the National Union of Students for a "polyvarsity" is that their overriding object is not diversity of provision, but an insistence that everyone gets the same education. However, the notion of "the same" or "equal" education is a chimera. Why must it be assumed that education of the university type is the most appropriate for the needs of all eligible young people?

If a populist stance is adopted, and it is argued that the universities should themselves change to reflect any different demands by the entering students, why must we insist that because large numbers of people fail to be attracted to an academic education, that minority of students and teachers who do appreciate it and benefit from it should be prevented from doing so? It seems reasonable that the basically extrinsic educational aims sought by many students should be recognised; there is little point in trying to make students unwillingly accept the rarefied atmosphere of academic education. On the other hand, it would be a mistake to ignore those who seek intrinsic educational goals.

Finally, what would be changed by the creation of comprehensive universities? If only the titles of constituent institutions were new, the change would be spurious. The approach is exemplified by the Fabian evidence to Robbins (Cmnd. 2154-vii, pp. 518-549). Perhaps typically, the Society stopped short of recommending "equal" education, but contented itself with advocating that everyone be subject to the same bureaucracy. To mask differences by putting them all under one administrative umbrella and calling the result a "polyvarsity" is an example of what Marx called: "man's innate casuistry —to change things by changing their names." If on the other hand, the intention is indeed to insist totally on the goal of equality (in the sense of "sameness"), certain other important values would be overwhelmed. One is therefore forced to the conclusion that the binary system, or something very much like it, is unavoidable if we are both to respond to contemporary pressures and preserve those distinctive characteristics of the universities which are considered of value.

However, it is important that we understand what it is we are defending in the binary system. Crosland originally took his stand on a rather crude distinction between academic and vocational education, but was later induced to amend the policy to one of pluralism. Whatever may have been the political exigencies which led to the original formulation, it is as a system of diversity, secured by institutional differences, that the policy has its true relevance. This diversity extends beyond the university/ polytechnic division. The polytechnics are only a small part of the multiplicity of colleges which constitute the public sector; for instance no mention has been made of colleges of education (the subject of another recent Young Fabian pamphlet, Our children's teachers, by

Isla Calder, YF pamphlet no. 27). Then in the private sector the technological universities provide many courses of an interstitial character. Further, there is diversity within institutions. The difference sought between universities and polytechnics is one of emphasis, not an absolute division of labour. The fact that people frequently find it difficult to draw hard and fast distinctions between the work carried on in universities and that in polytechnics is a healthy sign.

It is in this context of diversity within and between institutions that these essential specialised functions will survive most securely. As Sir Peter Venables has said: "while differences between institutions will diminish in certain respects, each as a progressive enterprise will retain its particular orientation and significant characteristics . . . If conditions are such that a rich diversity of institutions is fostered within tertiary education, then competitive claims that this or that institution is comprehensive become meaningless." (Conflicting patterns and purposes in higher education, Birkbeck College, 1970). So. Venables, we look forward to diversification within tertiary institutions, subject to two provisos: first, specialised departments and courses must attain a minimum size or mass"; and, second, diversification should take heed of the need to maintain coherence, for no institution can provide for every speciality, and those which it does provide should bear some intelligible relation, to each other and to the general character of the particular institution.

So far so good. A defence of diversity is an attractive cause to plead: "let a hundred flowers bloom" is a popular slogan. However, two very major issues have been ducked. First, if polytechnics are not to be simply centres of voca-

tional preparation, exactly what is their distinctive rôle? Second, while the concept of "separate but equal" has a plausible ring about it, it has a most unfortunate political history. To speak of each being excellent in its own way, of parity of esteem, is redolent of the 1944 education act, with its pious hopes for the prestige of the secondary modern and technical schools vis-à-vis the grammar schools. That was never achieved. So is parity of esteem possible at the tertiary level? Here, the opponent of the binary system can rightly claim that he is not talking of the chimera of equal education, but of the hard facts of the material inequality that exists between the conditions of students in universities and those in polytechnic colleges. At the most extreme, the ratio of domestic servants to students in some Oxford colleges is higher than the ratio of books to students in the libraries of some polytechnics. If the binary system is to be successful, attempts at reducing these inequalities must move beyond the level of pious aspiration.

Tackling both these problems will be assisted by one important development. What Crosland did in bidding the new polytechnics to become major institutions in their own right was to begin the process of creating a new institutional form of higher education. These powerful establishments are to seek academic weight and prestige, not by eventually being promoted to university status, but by making a place for themselves in their own right, establishing their own precedents and traditions.

Assuming a government which is broadly sympathetic to their ambitions (a crucial proviso) certain developments can be envisaged. First, on the problem of vocationalism, powerful voices are already declaring that it is no job of the polytechnics merely to provide voca-

tional training to fit students for the straitjacket of precise jobs. Eric Robinson, formerly of Enfield College of Technology but now at the new North East London Polytechnic, has tried to distinguish the education which he hopes the polytechnics will provide (which he calls "liberal" education both from "vocational" education and "academic" education as provided by the universities (*The new polytechnics*, ch. 4).

While one cannot support his dismissal of university education as sterile and useless, it is significant that he sees the task of the polytechnics as different from job preparation; certainly he wants an education with a vocational bias, but its proper aim will be to equip its students for intelligent life in an industrial society, and he draws a very sharp distinction between this and preparation for a particular occupational skill.

A similar plea against narrow vocationalism has been made by D. W. Jary, principal lecturer in sociology at the Manchester College of Commerce ("General and vocational courses in polytechnics," Universities Quarterly, Winter 1969). Although he does not share Robinson's optimism about the ease of overcoming the constraints of vocationalism, Jary also insists on the need for polytechnic courses to have a proper academic grounding rather than being specifically career oriented. The tradition of the autonomous academic discipline is deeply rooted in British intellectual life. Given the fruitfulness of this tradition and the fact that for many years to come most polytechnic teachers will have obtained their own degrees in universities, that tradition may be expected to become deeply rooted in the polytechnics too. This may well involve certain tensions in relationships with the professional

bodies and other institutions, which at present enjoy certain controls over the work done in the polytechnics on courses relevant to their various bodies of professional knowledge. As the polytechnics attract staff of high quality and seek to exercise their growing importance to secure more academic autonomy, one envisages changes in these relationships. Already there has been conflict between the Royal Institute of British Architects (RIBA) and certain polytechnics. What will probably emerge (indeed is already emerging) is a form of education which is concerned with vocational matters and occupational preparation of various kinds, but which does not do this in subservience to the demands of external bodies. Martin Trow has pointed out that this freedom of the educative process from control by existing practitioners of occupational skills has itself a vocational justification. ("Problems for polytechnics," Universities Quarterly, Autumn 1969). The danger of simple vocational training, he argues, is that it cannot stimulate improvement and innovation. Education with a vocational bias needs to train for the needs of tomorrow's industry, not today's, and this can only happen if the educational institutions have the degree of freedom needed to attract good staff and to innovate.

Trow sees in the creation of the polytechnics a potential lively challenge to the universities in the field of technical education; but, he says, to ask them to make this challenge is also to promise them the facilities to carry it out. "If the polytechnics pioneer in devising new forms of engineering education, or new ways of linking the applied, natural and social sciences, that is one thing; if their 'unique function' is chiefly to train technologists for local industry, they will never challenge the universities for staff, students or status." As he points out, this raises massive problems

of cost; in the short term, life will be difficult for the polytechnics, but in the longer term the prospects are hopeful.

This helps relate the question of the distinctive form of education likely to emerge from the polytechnics to the difficult problem of the inequalities between conditions in the two sectors. As the polytechnics establish themselves, their staffs will demand more autonomy from local authorities, better libraries and teaching facilities. No doubt as the colleges develop national reputations and attract students on a national basis some of them will begin to consider the construction of halls of residence. If for the polytechnics life will be easier in the long than in the short term, the reverse will be true for those responsible for the finance of higher education. There can be little doubt that one reason for the expansion of the polytechnics was that they seemed to provide the chance of cut expansion. In retrospect one should perhaps be grateful that this was the case, since the alternative policy most likely to have been adopted was a reduction in the number of people entering higher education. It is already becoming apparent, however, that the cost differential is not in fact so very great; and in the future as the polytechnics make a powerful case for improvement while certain items of university expenditure come under the beady eye of such bodies as the Public Accounts Committee, such differentials may be reduced. It is to be hoped that a future Labour government will be in a position to encourage these claims to advancement by the polytechnics.

It is not simply a matter of ensuring that the two sectors of higher education can compete on broadly equal terms. It is well known that the colleges of technology have traditionally attracted a larger proportion of young people from the lower middle and working classes than the universities. Indeed, an important argument in favour of concentrating expansion in the polytechnics is that this is probably the surest way of reducing inequalities of class participation in higher education. Therefore if there is to be no reduction in inequalities we have the undesirable prospect of higher education developing still greater divisions. On the one hand there will be a wealthy university sector, luxuriating in splendid material conditions and enjoying full academic freedom, preparing the sons of the upper middle class for senior controlling occupations; and on the other hand a finance starved public sector, open to interference by government, local authorities and industry, training the children of the lower middle and working classes for junior administrative and technical jobs.

To prevent this situation entrenching itself, several developments must take place in relations between institutions across the binary divide, in financial circumstances, and in autonomy. The pressures from within the polytechnics are likely to push in these directions, and official policy should also be to strengthen and reinforce them.

5. proposals for change

As has often been argued, there is no reason why student facilities such as students union buildings, and perhaps also libraries and student residences should not be shared by students from universities and polytechnics in the same area. This would make much progress towards alleviating the inequalities in student conditions and would prevent educational diversity becoming linked with social segregation. More positively, the social contact of a wide variety of young people with different educational interests would enrich the experience of students in both university and polytechnic. A second proposal which is instantly attractive is that the differences in material provision between universities and colleges of technology should be lessened by a levelling up process. However, given the constraints on public spending in the context of a continuing expansion of higher education, it is not realistic to expect a complete abolition of these inequalities. It is also likely that a case could be made for some levelling down from the universities' side. In a way, this process has already started as the UGC has begun to impose more rigid criteria on the standards of new building. Many universities could well afford to undergo some restraint of this kind. The day of truly lavish university building has probably passed and with some justification.

allocation of students

The problem of the social composition of the different student bodies is important and difficult. One of the main justifications for the binary system is that it enables higher education to respond to differences in student demand; but this purpose is not really satisfied if these differences in demand are simply a reflection of parental background. Related to this is the wider

problem, in a situation where a much larger proportion of the age group is entering higher education, of ensuring that students really are doing the courses from which they will individually profit most. British students are allocated to courses in higher education by individual choice, constrained by factors including selection procedures and government policy. Central government policy, as mediated and executed by the financial power of the University Grants Committee, is now the main determinant of the supply of places in university education. It influences not only the total size of institutions, but also their "product mix "-the balance between courses and subjects. The policy is based in a general way on some concept of social priorities, though these are rarely made explicit. Given the scale of resources now poured into higher education, it seems inevitable that any government will seek to exercise such influence.

consumer demand

Critics on the political right have argued that the preferences of the student "consumers" should carry much more weight in determining the pattern of future supply. Peacock and Culyer (Economic aspects of student unrest, 1969) have argued that, in the absence of a money price mechanism, students' preferences count for little, so that it is the preferences of producers (universities, other institutions, and behind them the government) which determine supply. This is the consequence of the British system of student finance. Maintenance grants are given as of right to those who have fulfilled matriculation requirements and been admitted by an institution; student fees do not pay even the running costs of their education, and only a small minority pay such fees on their own behalf. The cost to the student is so low, Peacock and Culyer argue, that there is a chronic excess demand for limited places. There not being a market clearing price, rationing devices have to be employed. One of these amounts to a non-monetary price mechanism; for the "A" level grades required to gain admission to a course vary with its popularity—with the numbers applying for each place.

Peacock and Culyer postulate that "the more the allocation rule ignores the preferences of consumers, the more animosity there will be between consumers and allocators." Assuming that in higher education it is desirable to create a market mechanism to govern supply and demand, they go on to advocate, among other things, that universities should receive the bulk of their income from student fees (which would represent at least the full running costs of the education provided) and that the student should be free to shop around from university to university as the fancy takes him. A major aim of their proposals is: "to create a much wider diversity of educational provision. Students could choose between collegiate type universities, civic universities. specialised institutions with a limited range of disciplines, evening as against day classes, even 'Maoist' universities and so on." While appreciating the desire for diversity, one is sceptical that this would be the result. At least Harold Ferns (Towards an independent university, 1969) recognises that the consumer for whom in his view the universities should tailor their courses are people of "good average intellectual ability" who, exposed to the tradiuniversity course, " masters of the higher illiteracy." There would certainly be a danger, however, of minority tastes and courses being swamped by the majority (a problem familiar in the world of television). The reason is that applicants choose their courses on the basis of inadequate knowledge, and then would be far from perfectly mobile between courses and institutions. Therefore, even the purely academic universities would come under pressure from those who did not find the courses to their taste.

While acknowledging that Peacock and Culver were confronting a real problem, their proposals for reforming the pattern of student allocation are too disruptive and too dependent on perfect market assumptions. In their unreasonable distaste entirely government domination of higher education, they are in danger of throwing out the baby with the bath water. The British universities have traditionally been more free of government control than those of many countries, but it is a much more basic and international characteristic of academic work that its standards are maintained independently of the consumer. Even if the Peacock and Culyer proposals mollified student discontent (which is doubtful), peace would be bought at too high a price.

Of the appeals of various forms of higher education, not all are easy for former to assess. sixth academic differences, such as relative prestige, are often perceived more accurately than differences in the content of courses; and relative prestige seems potently to distort demand. As Robbins noted: "it is sometimes said that, if other institutions become more attractive to students because of the wider availability of degrees, the pressure for entry to universities as a group will be eased . . ." (Cmnd 2154, para. 463). Misallocation of students cannot be reduced very much by resort to laissez-faire. There must be deliberate planning; the aim should be the tailoring of education to the multiplicity of human and social needs, the same objective as has been claimed in the past for comprehensive schools. In higher education, however, the solution to misallocation lies in planned flexibility and diversity of provision.

Little can be achieved by changes in nomenclature, the solution which, in effect, the Americans have adopted in the face of the difficult problem of degree fixation. As Lord Todd again remarked: "although America created a large number of university type institutions giving bachelor degrees of a rather general character and of a standard academically somewhat lower than the English bachelor degree, with increasing numbers flowing into higher education, a marked hierarchy has developed within the system. Nowadays it is evident that a small number of universities are emerging as superior institutions working at a higher level than the others and with a large graduate element." There has emerged what is known in America as the pecking order among universities. So it seems that very little can be changed by mere terminological innovations. Degree fixation in America has led to the situation where approximately two thirds of current urban age groups obtaining a baccalaureate of some with the result that American who put the letters BA or BSC (or their equivalents) after his name would create roughly the same impression of pretentiousness as an Englishman who used the letters GCE.

Even if the distorting effect of non-academic considerations like prestige were removed from the allocation of students between courses, and if diversity were achieved, we should still be left with a number of choices as to the structure of the allocative mechanism. None of the possibilities seems to offer a clear choice on *prima facie* grounds of "socialist principles."

One could continue roughly as present: the student at 18 would apply to the colleges of his choice, and on the basis of his academic record. examination results, his references and interview. performance at accepted or rejected by the academic staff. This selection mechanism not and would not be perfect, but it can be easily justified on the grounds that by the age of 18, a student might be expected to know his own mind, to know what kind of course was likely to suit him best, and to have a fair estimate of his own abilities. Such assumptions are unfortunately entirely true, and the system could be much improved by better vocational guidance in the sixth form, and by more flexible arrangements for transfer between courses for those who make a mistake in their initial choice. The essentials of the present system, however, have much to commend them. In particular, careful selection of candidates by the institutions to which they apply is associated with low rates of wastage (only about 14 per cent when Robbins reported) and it is relatively unusual for the student's period of study to be prolonged beyond the standard minimum period.

Alternatively, it might be argued that rather than this typically British "sponsorship" mode of selection, we adopt something akin to the American pattern, which has been described as a system" (R. H. 'contest American Sociological Review, 1960). Many state universities are required to accept for the course of his choice any student who obtains the minimum qualification of a high school graduation certificate, which represents lower attainment even than British "A" levels. Students can therefore remain in the contest right up to university level, with a minimum of selection before that: but the concomitant

of everyone gaining admission is that quite a large proportion soon make their exit. Unless the very notion of academic standards is abolished, free entry must mean a very high rate of wastage before completion of the Robbins put the course. overall American wastage rate at 45 per cent, although the figure for the top private universities, for which there is much more competition and selection, is considerably lower. Not only is this wasteful, but it is probably psychologically more damaging to the failed student than rejection before entry. Another consequence of the system is the frequent prolongation of studies beyond the minimum four years required.

France, West Germany and some other European countries differ from America chiefly in setting the minimum entry qualification, the Baccalauréat Abitur, at a higher standard so that a much lower proportion of the age group in fact enters higher education. Yet again, free access to the qualified school leaver is associated with high wastage rates (Robbins could not give an exact figure for West Germany, but it was 40 per cent in the Netherlands and 50 per cent in France) and prolongation of study. Of course, in social terms, money spent on and by those who drop out should not be counted entirely as waste; but such a system raises other difficulties which British higher education has not had to face. Planning and staffing is made more difficult, overcrowding grows, and the staff/student ratio tends to fall; it is spectacularly lower in most of western Europe than it is in Britain. It might also be observed that such a scheme would be difficult to reconcile with our present system of maintenance grants,

Combined with the foregoing, we might adopt the West German system of high mobility between universities. (More

than a third of West German undergraduates, and the vast majority in arts subjects, change university at least once during their studies.) Peacock and Culver's scheme would resemble this; but quite apart from the details of their suggestions there are many obstacles. As in West Germany, the state bureaucracy would become involved in managing the system, supervising the accreditation of courses and, perhaps in Britain, keeping records of each student's course credits. It could well lead to a further decline in university autonomy and would. again, be difficult, though maybe not impossible, to run in conjunction with the present grants system. Nevertheless, it would be desirable to make arrangements for flexible lateral transfer of students from one institution to another, for instance from university to polytechnic or vice versa, with credit for appropriate previous work. Indeed Robbins argued that persisting differences of level and function among institutions ". . . can only be morally acceptable, if there are opportunities for the transfer of a student from one institution to another when this is appropriate to his or her intellectual attainment and educational needs."

It will therefore be inadequate to continue to rely on selection at school leaving age as the final decision on the kind of education for which a young person is best suited, especially since the binary system will present him with a bewildering array of choices. There is therefore a need for more transfer between institutions after, say, one year of study, as a student's preferences become better known. If this choice is to take account of one of the most central differences, that between a predominantly academic and dominantly vocational orientation, it is important that these transfers possible across the binary division.

Were such transfers to be made, in both directions, at a fairly high rate, it could to reducing contribute much inequalities of prestige and social status between the two halves of the binary system. It should also be possible, after one year in higher education, for students' preferences to be less bound to parental upbringing. However, it would be wise to expect no dramatic results here. Class inequality has shown an extraordinary tenacity in overcoming constant attempts to reduce the effect of class origin in educational opportunity. As has been stressed before, a major reduction of class inequality in education must depend on the reduction of inequality in society as a whole, through all aspects of social and economic policy.

Ease of transfer between the two sectors of higher education implies that courses in the first year will be somewhat similar in the different institutions. There are in fact good reasons why this should be so. It is generally agreed that premature specialisation is unwise, whether the specialism is an aspect of an academic discipline or a form of vocational preparation. It is also the case, increasingly, that modern employment does not require men who are trained in a rigid specialism, but men who are versatile and whose skills are flexible. It is a happy case of the requirements of the labour market suiting the ideals of liberal education, just as Robbins found that manpower planning was in such a primitive state student demand should gain priority over employers' demands in shaping the pattern of educational expansion. Ideally, a course of study should proceed gradually from the general to the specialised, like the branches of a tree stemming off from the trunk. In this way choice of specialism is based on a wider knowledge, and the specialised study is rooted in a wider background. It is therefore sensible to recommend that first year courses be general. difficult is to ensure that first year courses in universities and polytchnics roughly comparable; this will involve far more collaboration between teachers in the two sectors than exists at present. There is now a fair amount of one way communication between the universities and the technical colleges through the institutions of the London University external degree, and through the degrees of the growing Council for National Academic Awards (CNAA). The flow of ideas, however, needs to become an exchange, and facilities will have to be developed for this in the form of societies. formal institutions informal groups. To avoid national bureaucratic intervention, this might be most easily arranged in large cities with a great diversity of tertiary establishments. Many of our universities ("cottage universities" in Ferns's cutting phrase) are, however, situated in small towns where there is a paucity of other colleges.

control of polytechnics

The relationship of polytechnics to the local education authorities will also need examination. We would not propose that the colleges become autonomous institutions and move under the wing of the UGC. This would destroy the concept of the two sectors; and the degree of "social control," which government desires, could then only be met by the universities becoming subject to the same degree of control.

However, as with the relationship between the polytechnics and the professional bodies, powerful aspirations towards increased autonomy are likely to develop. For these large institutions to remain the responsibility of a sub-

committee of a local authority will become increasingly awkward, especially as some of them develop into institutions of national reputation. (An indication of the trouble likely in such a situation has already been seen in the disturbances at the Hornsey College of Art.) We therefore support the proposals made by the Higher Education Policy Group (HEPG) for the establishment of a central grants authority for the polytechnics, in which the local education authorities will maintain a rôle reflecting their continued involvement in higher education. The group proposed the establishment of a central body to replace the existing practice of negotiation by individual authorities with the DES. "Such a body would act after taking appropriate academic advice from those working in the polytechnics and other colleges. To ensure that its powers were more than merely advisory, the DES might with advantage limit its own decisions to determining the overall capital expenditure on the public sector of higher education, leaving the new body to allocate projects within the budget."

Given changes along these lines, the development of the new polytechnics can prove to be the most satisfactory means whereby the conflicting pressures on British higher education are accommodated. The balance sought is a delicate one. If university and polytechnic become too closely related there is a danger that certain distinctive characteristics of university education will be lost. If on the other hand their separate spheres of interest are too clearly segregated, other dangers will appear. In the medium term, one such danger will be that the polytechnics will limp along as low prestige purveyors of vocational training. In the longer term, however, it is likely that universities which became entirely

divorced from involvement in practical affairs would become neglected backwaters, starved of finance by governments and stagnating through the absence of any challenges to innovate.

In the context of a general defence of rather traditional university values, it is important to stress that academic education is not the only legitimate form of higher education to which people should aspire, Jacques as Barzun recognised. "Intellect isn't everything! Of course not. Nothing . . . Compared to food, love and medicine, the good that intellect brings to life is small. It still may be indispensable, but its advantages are limited; and since like any other limitation, this implies cost, the advantages may be bought too high" (op cit p. 145).

The point is that, although there is little reason to water down the academic curricula of the universities, there is room for discussion about the number of purely academic universities we need in the multiplicity of advanced institutions-to discuss the "size of the industry." Given the predictions of the future scale of demand for higher education places, it is most unlikely that the present universities will have much difficulty in finding enough students of appropriate ability and intellectual inclination for them to stay at their present size and grow somewhat. There might, however, be a strong case for them expanding less quickly than higher education as a whole. Similarly. the Labour government's policy of founding no new orthodox universities and holding out no prospects of conversion to universities for the new polytechnics should be maintained for the foreseeable future.

6. inside the university

It is fashionable to scoff at any attempt to define the university. A type of extreme nominalism prevails: a university is what a university does. The great diversity within and between universities makes it hard to describe them without falling into error. In considering their internal organisation, we therefore feel sufficiently ambitious to confine ourselves to the universities without considering separately the polytechnics.

V. H. H. Green, who attempted to survey the British universities, wrote that: "the university is an association of scholars engaged in teaching and research, the latter being a necessary concomitant of the former . . . the great overriding aim of the university is the pure pursuit of knowledge, free from social, political and dogmatic limitations." (The universities, 1970).

Green's definition immediately draws attention to a misapprehension common among people outside universities, and even some within: the rôle of the university teacher is not quite like that of a schoolteacher. While a good schoolmaster will keep abreast of his subject, reading the latest books and introducing new material as far as the syllabus will allow, his great art and skill, and his source of professional esteem, lies in his ability to put the material across to his pupils and to stir their interest. Increasingly, the university teacher is being criticised for not seeing his rôle in the same way. "The common assumption appears to be that the products of intellect are all dead, but that it is possible to inject them with life before they reach the receiving mind . . . The teacher or textbook is expected to 'enliven' the subject while the pupil looks on in passive discontent" (Barzun, op cit).

On the contrary, however, the university teacher has traditionally assumed that the student is already interested in his subject and motivated to study it when he comes up. The don considers himself morally entitled to make this assumption, if not empirically justified in doing so. If the student is not motivated, then it is his fault should he get a poor degree or none at all. This is by no means to defend poor teaching in universities; there is certainly no merit in killing interest and motivation.

Despite much criticism, very little evidence is ever produced that teaching in universities is bad or unskilful, other than in an inevitable minority of cases. Such allegations as are made frequently smack of rationalisation of academic inadequacy on the part of the student, and a disguised demand for spoon feeding. The academic retorts that he is engaged in teaching, not mere instruction

The usual palliatives put forward, such as insisting that all dons should hold a teaching diploma, would help only a little, and then only if the diploma course were one specially adapted to university requirements. The schools system should at least be able to maintain the proportion of students entering university capable of reading and learning under only their own self discipline and the general guidance of the teacher. To claim that universities should no longer assume them to be so is to contradict the assertion that an increasing proportion of the age group is capable of undertaking a university education.

It is difficult to generalise about the pattern of teaching in the universities, because they differ so much among themselves. Yet when compared with other countries, British universities do seem to have certain features in common. Most of them teach in lectures, tutorials and seminars, with practical sessions of great importance in the natural sciences.

A lecture class consists of between 15 and 200 students, first year general courses usually being the largest and third year optional courses the smallest. It is popular to question the value of lectures, and certainly their value varies between subjects and from one student to another (and from one lecturer to another). In the proper context they are important; they make it necessary for the lecturer to systematise his views and set them out clearly. He should offer first a critical survey and synthesis of the literature in the field; not a summary, but a framework to give context and perspective to the student's subsequent reading. Second, he should contribute such knowledge as has yet not been written up, though any lecturer can hope to do this only in a small part of the total area in which he is called upon to lecture. Third, he should stimulate and communicate enthusiasm. If the lecture is doing all this, it is irrelevant to complain that it does not cater for discussion between lecturer and students.

Such discussion properly takes place in tutorial groups, which take up a much larger proportion of academic staff's time than do lectures. Robbins considered these a key feature of university teaching and stressed the value of personal guidance of individual students by a member of the academic staff. In Oxford and Cambridge, the tutorial group normally consists of only one, two or three students. In other universities which run a tutorial system groups may run to four, five or more; and in some universities, classes reach double figures. Ideally, in a tutorial the student discusses his essay with his tutor. The flow of ideas should not be unidirectional, and the tutorial should be spontaneous, not planned in detail beyond the tutor reading the essays beforehand. As Robbins emphasised, this requires students to be not only intelligent but articulate. However, dons now fre-

quently experience subtle pressure to make the tutorial into a lesson. One sociologist has recently given hilarious account of how students in an African university successfully exert many informal pressures on teachers, with a suggestion that things may not be so very different in Britain! (Hilary Campbell (pseudonym), Sociology, 1971). The seminar is a rather larger discussion group, and students have recently demanded more of them. They can be valuable if the students prepare for them, but very frustrating if they do not; they must be more than a forum for the passionate but uninformed exchange of mere opinions and speculation.

Whatever faults the British system may have, most people would prefer it to patterns encountered abroad. At the Sorbonne, the audience at lectures may exceed a thousand (as well as the capacity of the lecture hall); the smallest classes at which academic and students meet each other may exceed 50. In America too, the graduate teaching assistant who runs classes and marks essays and examinations, may mediate between professor and student. The British system involves a rather favourable staff/student ratio (about 1 to 8 in the past) and is thus expensive. The alternatives seen in other countries ought to be remembered when considering the costs of universities. Personal contact between teacher and taught is of the essence; advances in teaching technology may reduce unit costs, but will scarcely provide even an ersatz "meeting of minds."

teaching and research

In a university, teaching stems from reading and research, from the don's love of his subject, not vice versa. The academic keeps up with his subject not

only through the latest books, but from the periodical literature, and in discussions with colleagues and research students in his own and other universities. Time spent in these activities, uneloquently labelled "internal unallocable time" in a recent questionnaire from the committee of vice chancellors, is in fact at the core of the academic's profession rôle. There is in consequence an element of critical synthesis, of gleaned knowledge in his teaching even of those areas in which he himself is conducting research. The critical attitude is a vital element in what is imparted; there is much more of the teacher in the material than is common in other educational institutions. Presentation is in a sense a secondary consideration; a brilliant academic may not be in the first rank as a teacher, but enthusiastic students will nonetheless prise out of him much of value. Furthermore, it is arguable that the very identity of an academic subject stems from a tradition of research and scholarship, rather than primarily from what is taught. There are exceptions to this (geography is a striking example) but on the whole it seems to be truer today, when several universities have almost abandoned undergraduate courses treating one discipline in depth, in favour of a so called "cafeteria curriculum."

The notion that research is in competition with teaching, and is detrimental to it, is a rather recent one. Until now, it would have struck both dons and undergraduates as odd; the academic who was attempting actively to contribute to his subject would have been assumed more likely to be a stimulating mentor. It has been said that the nineteenth century university promoted scholarship rather than research in the modern sense. Yet research even in this sense has been carried on in universities for many years, and used not to be accused of disadvantaging the student.

Robbins perceptively remarks: "the student needs from the beginning to be made aware of the scope of his subject and to realise that he is not being presented with a mass of information but initiated into a realm of free inquiry. There is a reciprocal benefit to those engaged in research from being members of an institution where learning is not only advanced but communicated . . . There is no borderline between teaching and research; they are complementary and overlapping activities,"

a strategic myth

It is one of the strategic myths of university life that academics are involved in teaching their own successors. This belief may be a myth, because only a minority even of the most able students do in fact proceed into the academic life; but it is a vital myth, because it enhances the teacher's sense of purpose in pursuing his subject. The audience of students is not one that can be entirely replaced by colleagues. For the majority of students who will not continue with academic work, there is a spin off of academic excellence. Again, only recently has it been suggested otherwise, and such allegations seem in the end to be rooted in a denial of the worth of an academic education for any others than those who wish to take up an academic career.

The proposal sometimes made, and now appearing as a real trend under the influence of the research councils, is to concentrate postgraduate research in London, Oxbridge and a few other "centres of excellence". Because research is an integral part of the academic rôle, and indirectly part of the experience of a university education, such proposals amount to advocating a contraction rather than an expansion of the university system. Such a course of

action is possibly defensible, but at least it should be recognised for what it is. Post-graduate students play a key part in university departments. Their research is inter-dependent with that of the staff. Without any post-graduates, those universities which are already below the top rung of the hierarchy would begin to emerge as a distinct group of institutions, a second class of purely teaching colleges.

the self governing community of scholars

It is difficult not to see the self governing community of scholars as the ideal of university government. Yet Oxford and Cambridge are the only two British universities whose constitutions leave almost complete control to their academic members. The other universities have lay majorities on their governors.

Differences of detail and nomenclature make generalisation exceedingly difficult, but the general pattern outside Oxbridge is that the supreme governing body is an enormous ceremonial gathering called the court; it probably meets only once a year, and has an overwhelming lay majority. The impression is that everyone of any consequence within a hundred miles radius of the university is a member, and it has no effective power. The real governing body is a smaller one, also with a lay majority, usually called a council. It contains nominees of local authorities, local businessmen (why not more trade unionists?), representatives elected by the court, and some academics. The council holds the purse strings, decides the outline of university building and development, and generally mediates the university's relations with the outside world. However, a third body usually called the senate, of which the membership is academic, effectively rules on all academic questions.

It must be admitted that this separation of powers has in the past worked rather well, and that it is likely to continue. As Robbins wrote: "more than 85 per cent of university finance comes from public sources and in our judgment it is in general neither practicable nor justifiable that the spending of university funds should be entirely in the hands of the users. Academic autonomy is more likely to be safeguarded where the public has a guarantee that there is independent lay advice and criticism within the universities." As the size and number of universities have grown, the lay element has had the function of shielding them from more direct government supervision. Even so, as Robbins realised, this system can only work when it is run with good sense and moderation. Lay majorities on the council have in the past usually been careful not to trespass on the territory of the senate. In fact, the balance of power is even more delicate, for the line of demarcation between senate and council, between academic and non-academic matters, is not so clear as this simplified description might suggest. Major decisions on finance and buildings for instance, usually have academic consequences, so there must be a firm academic voice in non-academic decisions. It is essential, too, that lay members appointed from outside bodies, whether local authorities or businesses, sit strictly as individuals and not in any sense as delegates.

Much of this would scarcely require discussion, but for the events at Warwick University and a few less well publicised incidents elsewhere. Should there be any major recurrence of such incidents, pressure might well build up for lay involvement to be abolished or restricted. If the government yielded to such pressure, the price of academic internal self government would almost certainly be much closer control from

Whitehall. Though there are great universities elsewhere which are subject to closer government scrutiny (in West Germany the *Ordinarius* is a civil servant) this is certainly not desirable.

student power

Self evidently more topical is the place of students in university government. As a consequence of student disorders in recent years, many universities have now found widely differing ways of allowing student participation various university committees. What has been said about the necessity of the academic profession retaining control of academic matters helps to explain some of the students' fury. It also explains why any prospect of student power in academic issues must be viewed with caution. The views expressed by Kingsley Amis (not usually the most popular writer with the left) elicit certain sympathy. "A student being (if anything) engaged in the acquiring a knowledge, is not in a position to decide which bits of knowledge it is best for him to acquire, or how his performance in the acquisition of knowledge is to be assessed, or who is qualified to help him in this capacity. Or other things besides, but these three incapacities I have mentioned correspond to the three main student 'demands' in the academic field: for control over courses, over testing methods and over the appointment of teaching staff " (Black paper one).

This might be described as the epistemological argument; it follows that students should not only not have power, but should be seen not to have power, on those bodies which actually take decisions on these academic matters, be they departmental staff meetings, faculty boards, or the academic senate of the university. The

final word on these matters must be claimed by the professional body of academics, "who by their scholarship in the relevant field of study have proved their right to an opinion, to decide on the way in which [they] present [their] subject." Vice-chancellor's and National Union of Students' joint statement, October 1968). The conreached cordat by the committee of vice chancellors with the National Union of Students recognised this principle in delineating "reserved areas" corresponding to those mentioned by Amis, and to financial questions.

Unfortunately, the distinction between those committees which deal with " reserved areas" and those which do not, is by no means clear in practice. Some universities have tried to overcome this difficulty by establishing student affairs boards (or equivalents) on which students would be strongly represented, and which would discuss all matters concerning student welfare (for example, health services, catering facilities and accommodation) report to the senate. There can be little doubt that such staff/student consultative bodies would greatly increase the influence of student opinion if responsibly expressed. However, such solutions have typically been rejected by the students in favour of direct and strong membership of the existing statutory bodies, the senate and the council.

What is ironic is that the "reserved areas" doctrine, which must be strictly applied in these formal meetings, acts to exclude precisely the questions about which students most frequently get steamed up. It also means that two sets of agenda and minutes have to be prepared for all meetings. This is not to suggest, however, that students have nothing to contribute to the discussion of academic matters. There is a great deal of difference between consultation

and influence on the one hand and power on the other. Students are entitled to be consulted, and might often make useful suggestions, one could wish this happened more often. This is, however, a very different matter from being able to use votes to impose (to take an extreme example) a seminar on Ché Guevara in place of one of the basic courses in political theory.

However, the same considerations do not all apply with quite the same force to non-academic aspects of life in universities. In such matters as mainly concern them alone, students should be as nearly self governing as possible. The tight control of student union finances by the universities proposed in the recent DES consultative document (The financing of students unions, November 1971) would be a retrograde step, and one which will probably be firmly resisted by the universities themselves. Yet it should be remembered that students are students for only three years, which is quite transient in comparison with university planning horizons; any individual student is unlikely to look forward to permanent involvement in the university. Therefore, even in such matters as student residence, the needs of the long period must be asserted by permanent members of the university community.

bureaucratisation of the universities

Some of the most articulate spokesmen of the student power movement centre their attacks on one target, well justified in intellectual terms; the alleged bureaucratisation of the university. This trend has been extensively discussed in the USA, but less so in this country. It seems to be an inevitable feature of any western industrial society that any organisation on the scale reached now by most universities will have to be co-ordinated on bureau-

cratic principles. Moreover, as the critics rightly point out, there is a deep and intrinsic conflict between the traditional academic values and those of the bureaucracy. Advocates of mass meetings want to crack the bureaucratic Tim Poston (in Rubinstein mould: and Stoneman, op cit, attacks the network of committees dominated by professors, and the "princely behaviour" of some heads of departments. There seems to be a genuinely strong case, not, as he suggests, for a mass meeting, but for dispersing power downwards to a greater extent, perhaps to the extent produced by the Oxbridge college system; and for rotating chairmanships of departments and collegiate responsibility, a system which appears to work in America and some British departments. The centralised bureaucracies which have formed in British universities, often with a de facto non-academic head at the top of the pyramid, gather and produce momentum changes.

reaction to the administrative bureaucracy, the students union develops its own bureaucracy, by a process of "countervailing power." This is only reasonable; one cannot expect otherwise, but it constitutes an argument for de-escalation on both sides. The sheer scale of the student union's administration makes a sabbatical year for the president both inevitable and fair. So the union acquires its own nonacademic head. The union bureaucracy then becomes a potent force for the further bureaucratisation of academic life. This seems likely to happen even if the union uses anti-bureaucratic rhetoric, for students usually want to campaign for the elimination of all inconsistencies between teachers, courses, department and faculties. the national level, the NUS bureaucracy performs the same functions for such divergencies between universities

have not already been attacked by the VCC or the UGC. Bureaucratisation of the academic life reduces the margin of professional discretion which academics, especially qua examiners, have always exercised in individual and marginal cases. ("How marginal is marginal?", the meaningless cry goes up). Any academic will bear out that this discretion never works to the disadvantage of the student. Yet the increasing rationality, consistency and rigidity will be seen by students as a decline in the humaneness of the system, the opposite of their intentions. Whatever the unintended consequences of student actions, however, the main point is well taken—that there is potential conflict between academic and bureaucratic values. Both in academic character and in internal organisation, there is much in established universities which ought to be preserved and protected; and people on the left have good reason to make sure that they are.

7. the cost of the universities

Higher education has been propelled into the political arena, like most things, by its cost. The stark fact is that over the next decade, it is expected that the student population will grow by between five and six per cent per annum; and it would be optimistic to expect the economy to grow at more than about half this rate. On these assumptions, it has been estimated that, ceteris paribus, public expenditure on full time higher education would grow from 1.4 per cent of gross national product in 1970-71 to about 2.1 per cent in 1981-82 (HEPG statement). Is this going to be found by raising public expenditure as a proportion of GNP, that is by having to raise more in taxation? Or is there to be less public expenditure on other social services, and if so, on which? Or can the increase in costs be restrained?

In a decade, we shall have 800,000 students. Though it is unavoidable that higher education's share of GNP will rise somewhat, an increase of the order of magnitude predicted is unlikely to be accepted by contemporary governments. Astute politicians will already be giving attention to the third option; reducing unit costs. The present pattern of university education is expensive to provide; the mere fact that British universities have traditionally worked with a staff/ student ratio of about 1 to 8 and even now usually do not fall below 1 to 10. is itself some indication of their cost compared with less labour intensive forms of tertiary education. Students who gain admission to a university are privileged in the scale of finance lavished upon them. Yet this seems inevitable. Many suggestions have been made for reducing the cost of university education, and 13 were listed by the committee of vice chancellors in its statement on "University development in the 1970's." As the committee showed, most of the suggestions have academic implications, and those that

do not would seem to offer relatively small savings. They include items which may have the effect of limiting the number of students engaged in conventional university studies, as well as those which might reduce the unit cost of any given number of students.

(i) A reduction or removal of student grant aid, coupled with a system of loans. (ii) A similar policy at the postgraduate level only. The arguments against such a policy are well known, though they apply with less force at the post-graduate level. The fear is that the student contemplating higher education will be faced with the prospect of fixed repayments which he can have no prior certainty of being able to afford. Loans would be a deterrent to students from working class homes, and to girls, for whom the debt would represent a "negative dowry." On the other hand, graduates normally enjoy an earnings differential over the non-graduate, and the grants system at present involves a transfer of income from the less well off to the better off part of the community. It is true that insofar as higher education raises income, graduates pay more income tax than they otherwise would, but the value of the extra tax by no means repays the grant they received.

Robbins considered the arguments for and against loans very evenly balanced, but decided against them because they would not "alter the ultimate burden in terms of calls on real resources of manpower and equipment." Yet given the political constraints, especially that of keeping public expenditure under control, it is likely that the government (even a future Labour government) may feel bound to introduce student loans. If it does, we should hope that the scheme eventually introduced would be a humane one such as that outlined in the appendix to the report of the Higher Education Policy Group (HEPG).

The proposal is to relate any repayments automatically to the student's subsequent income. The present maintenance grants would continue at their present level, thus preserving differential support to students from poorer homes. The value of grants has already been eroded by inflation, however, and in future they would not be expected to rise pari passu. Under the HEPG plan, the student's extra requirements would be met by conditional loans; he would later repay a certain percentage of his income via the inland revenue until the loan, with interest, were repaid. It is estimated that a loan of £300 would involve the alienation of only 1 per cent of future annual income; and that if the average student borrowed this sum during his three year course, the relief to public expenditure would be about £30m in 1981 and over £100m in 1991. This is a small, but not negligible saving on the total higher education bill. On the whole, the present system of grants is preferable, but this particular cow seems less sacred than many others which might be slaughtered as alternatives.

(iii) A more restrictive policy as regards the admission of overseas students. The Labour government began this policy by raising overseas students' fees. The outcry from the universities, especially from Labour supporters within them, showed that this is widely considered a mean and selfish option.

(iv) The requirement that grant aided students should enter specified kinds of employment after graduation, which might have the effect of reducing applications. Such direct intervention by the government in students' freedom of choice would be widely considered unacceptable; nor is there great reason to suppose that the returns on the community's investment in human capital would thereby be much raised.

(v) The greater use of part time and correspondence courses as alternatives to full time courses. The Labour government's most notable achievement may well prove to have been the establishment of the open university, which already uses these methods; but the open university was designed to give a second chance to mature students who had missed their first one. That the Tory government is seeking to make it accept a great many 18 year olds reveals not only a lack of concern for the older group, but also a willingness to reduce the chances of the younger group to enjoy the experience of a full time university education. Perhaps too many young people are being encouraged to seek university education; but it certainly seems foolhardy to do so, and then fob off a large group with something that is for them second best.

(vi) The possibility that the most able should have the opportunity to complete a degree course in two years; (vii) the possibility of some students not proceeding to the customary three year course, but to a different course lasting only two years and leading to a different qualification. That these policies would have serious academic repercussions is obvious. It is not without significance that no country in the world finds it possible to give an academic degree after only two years of study. English three years course is already one of the shortest, so a two year degree course would certainly be undesirable.

In international perspective, it would seem extraordinary that we should give our most able students only two years of full time higher education. For them, a two year first degree course might be acceptable if it led automatically to two or more years of post-graduate work; but the net effect would most likely be to lengthen the average period of study, the opposite to the intended objective.

The idea of alternative courses of two years' duration, however, seems to be gaining ground; it differs in that it would presumably be the less able who received only two years. Although this plan might be preferred to actually reducing the chances for entry to any higher education at all, it must be recognised that it does amount to a reduction of opportunity (almost akin to watering the workers' beer!); and what would the two year qualification be called? Two year degrees are virtually unknown; nonetheless, given degree fixation, to make the plan acceptable, a degree it would probably have to be called. If so, the best idea would be to make use of the existing distinction between a pass degree and an honours degree. At present, a very small percentage of students start on pass degree courses, the less able end up in them faute de mieux. As the intended outcome of a shorter course, the pass degree might be more attractive than it is now.

(viii) The possible insertion of a period between school and university, which would give school leavers a better opportunity to formulate their views as to whether or not they wished to proceed to some form of higher education. Everyone seems to be in favour of this and it would have many advantages. A university population of more mixed age composition would provide a more adult atmosphere. It would help to solve the problem of proper motivation; and especially in the social sciences, it would help students to gain maturity of judgment and relevant experience. However, how practicable is it? The economic value to an employer of a school leaver with "A" levels who does not wish to train for a long term career is very low; and the problems of organising some form of voluntary service (home or overseas) for several hundred thousand teenagers each year would

be insurmountable. Furthermore, the delay could not be a long one; by their mid-twenties, people have dependents, and might not find it easy to live on a student grant. True, the grants now have dependents' allowances; but were a large proportion of students to claim for dependents, the cost to the public purse would vastly increase, not diminish.

(ix) The more intensive use of buildings and equipment, including the reorganisation of the academic year. (x) More sharing of facilities between adjacent institutions. The UGC is seeking to guide universities in better plant utilisation, but states that the savings to be made by this means, and by the sharing of facilities, are not very dramatic. A related point is that there are economies of scale in academic organisation; big departments and big universities, ceteris paribus, have lower unit costs. As to the reorganisation of the academic year, to utilise more fully the accommodation at present under used in vacations; the savings in recurrent costs would not be great, though the capital cost of expansion would be reduced.

Yet buildings are already heavily used in vacations for continuing education, including since summer 1971 their use by the open university. More importantly, these plans have severe academic implications: "acceleration in matters of the mind must be internal, not physical; the aim must be intensity, not speed. A college plant cannot be worked; it is the human animal wandering inside who must be. And to learn anything permanently he needs periods of intellectual loafing. Speed will come of its own accord if we have teachers good enough to teach the best students something in such a way as it stays taught. And these we cannot have if we continually dilute the quality by cheapening the conditions of work. If

education were milk we should never imagine that we could increase the supply by adding water indefinitely." (Barzun, *op cit*, p. 204).

The university teacher does not and cannot teach twelve months a year, nor does he take three months' holiday a year. He needs time as much as any student to digest his knowledge and keep up to date. So even if the universities were open throughout the year, with students working a shift system, they would need a proportional increase in staff. This would mean that only fixed capital could be used more intensively, not labour. In any case, is it seriously suggested that the lecturer who is having his three months off teaching should be kicked out of his study in the university, with all his books, documents and impedimenta? If not, then we should require more studies; in other words, the saving in plant would be yet further diminished.

(xi) More home based students. Savings in this direction are limited, no matter how desirable or undesirable it is. Denationalisation of the universities to some extent seems to be implied too, and is not to be welcomed.

(xii) The development of student housing associations and other forms of loan financed provision for student residence. This proposal is already being implemented to some extent. Universities are already raising debentures and other loans to finance new student accommodation. There is little to be said against this; although it does mean that accommodation has to be charged for at full economic price. The result, however, is redistributive; savings will be made in public expenditure, but not in real resources going to higher education, except insofar as the further result is a considerable increase in off campus lodging.

(xiii) Some further decrease in staff/ student ratios. All parties concerned recognise the dangers of allowing staff/ student ratios to fall very far or very abruptly. As other countries have found, the quality of education provided is soon affected; for personal contact between staff and students is essential to university education. Even so, there appears to be some consensus in the academic profession that some further fall in the ratio would be more acceptable than some of the alternative ways of reducing costs. A reasonable suggestion has again been made by the Higher Education Policy Group that a reduction from 1 to 8 to 1 to 9.6 should be tolerable over a ten year period of expansion. Of course, it would have to be phased so as to allow steady growth of academic staff, lest the career structure of the profession be seriously disrupted.

Even then, the savings in 1981 would be only £50m. Curiously, there has been little discussion of the possibility of considerably raising academic productivity by giving each member of staff such things as a telephone, a reasonable share of a secretary, and access to a Xerox machine. Hours are wasted by academics not being able to reach for a phone, or incompetently typing letters, which could be much more competently typed by someone whose labour costs far less. The cost of telephones and secretaries would no doubt be more easily measured than the increased output of ideas and quality of teaching.

Of all these possibilities, some of the most popular appear facile and ineffective; some are welcome but do not promise very significant savings. Of those which would save most, many seem to promise unwelcome academic repercussions. The real conclusion is that we shall not be able to have university expansion without paying for it.

8. conclusion

Few aspects of these arguments can be codified into precise proposals for future Labour policy. The major concern has been to defend academic autonomy and to draw attention to contemporary threats to it from students, state and industry, and to stress that this autonomy depends heavily on "beliefs and sentiments" rather than specific instruments of policy. To a large extent, therefore, this task has been fulfilled if we have contributed to the strengthening of these beliefs and sentiments within the Labour movement. However, certain more substantive issues have also emerged, which it would be useful to summarise here.

First, the maintenance of the binary system, or rather a system of diversified institutions, so frequently attacked since Anthony Crosland first enunciated it, is crucial to our continuing ability both to preserve university autonomy, and respond to the pressures exerted on higher education by other social institutions. The should be regarded as centres of mainly academic work, both in the content of their activities and in the orientation of their students. The polytechnics should develop their own distinctive but vocationally orientated studies, and also keep their links with a wide range of sub-degree work. Before the two wings of the binary system can honestly be considered equal in status and esteem, however, there will need to be a determined effort to reduce certain important disparities between the universities and the polytechnics, including positive steps to secure sharing of facilities. To ensure that students make an informed choice between institutions (an important aspect of maintaining the identity of the two parts of the binary system) there will need to be academic collaboration and regular channels of advice and Finally, the form of public control of

the polytechnics will need to be less linked to the sub-committees of individual local councils, if they are to be regarded as permanent additions to the major provision of higher education.

The binary system should do much to reduce the external pressures on the universities, but other measures can also be taken. Means have been indicated by which universities could recover a limited degree of financial autonomy through the retention of students' fees: further relief will come if the polytechnics expand at a faster rate than the universities. While no one would believe that the universities should have no links with industry and other outside institutions, these links should develop at the initiative of academics within the universities: the more natural centres for projects of this kind should be the polytechnics. Meanwhile, in the individual universities there should be moves towards autonomous academic government at the expense of today's lay governing bodies. In recent years, the universities have been the objects of fashionable scorn both from within and without. Many external critics have been motivated by an awareness of the immense waves of social change which are only now lapping at the thresholds of the universities. Many internal critics have been moved by a narrow parochialism, their attention diverted from more pressing causes for social crusade by the convenience and vulnerability of their own institutions. Neither group has done full justice to the many strengths of the British university tradition. Higher education will necessarily face great changes in the last decades of this century, but what is of value must not be destroyed. The university in the future will require a greater sensitivity to its nature and needs than has perhaps been necessary in the past; and that sensitivity is all that we ask.

fabian society the authors

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Enquiries about membership should be sent to the General Secretary, Fabian Society, 11 Dartmouth Street, London, SW1H 9BN; telephone 01-930 3077.

Colin Crouch is chairman of the Young Fabian Group and a member of the Society's executive committee. He is a research student at Nuffield College, Oxford, and was formerly a lecturer in sociology at the London School of Economics and Political Science. He is author of the book, *The student revolt* (1970) and of the Young Fabian pamphlet, *Politics in a technological society* (1970). He was co-author of two other Young Fabian pamphlets, *The youth employment service* (1966) and *Students today* (1968).

Stephen Mennell read economics at Cambridge and sociology at Harvard. Since 1967 he has been lecturer in sociology at the University of Exeter. He is now a member of the University Senate and of Exeter City Council, He is chairman of Exeter Fabian Society and a member of the Local Societies Committee. In the past he served on the executive committee of the Young Fabian Group and was chairman of Cambridge University Fabian Society and of the Labour Club.

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