

embraced the conclusion that the chemical industry, by the scale of its recently increased manufacture of organic chemicals, has become the chief hazard. Yet many of the items in Epstein's indictment are, to say the least, disputable — the carcinogenicity of saccharin, for example, as Peto quite properly pointed out nearly a year ago. Epstein's comment on this point (*Nature* 289, 115; 1981) implicitly confirms that view. The nature of his conclusion, and the clarity with which it is stated, seem entirely at odds with the simple rule that epidemiologists should acknowledge the possibility that their statistical association may be wrong. Self-doubt is not merely seemly but persuasive.

But is not an appearance of self-doubt inappropriate in a book whose purpose is polemical? One objective of *The Politics of Cancer* is after all to persuade governments to change their ways.

Epstein, who appears from his bibliography to be a frequent witness before congressional committees, does not lack opportunities for putting his point of view. On this occasion, however, the result may have been so to scare such a large number of readers of the book that they in turn will put pressure on their congressmen, forcing a change of policy towards the chemical industry and its products born not of reason but of fright. There can be no circumstances in which it is permissible for professional scientists to hazard the reputations of their subjects in such a cause. The overstatement of a plausible case is not permissible. To conduct scientific arguments in immoderate language is bad for the public reputation of science. This is why Cairns's way of looking at the problem, with all its inconclusiveness, is so much to be welcomed.

## University empire confronts a crisis

What on earth is to be done about the University of London, which is not so much a university as a relic of a university empire? It is a huge and ungovernable federation of more than forty titularly autonomous institutions, more than half of them concerned with medical education. There are eight non-medical colleges providing a general undergraduate curriculum and a further ten with more specialized interests, some only at the graduate level. The schools differ greatly in size, strength and reputation. Some, such as the London School of Economics and Imperial College, are international centres of scholarship — and Imperial College is financed separately from the rest of the university on the grounds of its national importance. Others, not always through their own fault, are at the other end of the spectrum of academic excellence. In 1979–80, there were 30,000 undergraduates and 10,000 graduate students, 18 per cent of them from overseas. London's financial prospects are thus bleaker than those of other British universities because its proportion of overseas students is greater; it stands to be hit harder by the government's insistence that overseas students must now be charged full economic fees (see *Nature*, 29 January). The university has long since abandoned its role as a provider of school-leaving examinations for most of the British Commonwealth and has even, more recently, given up the invidious role of providing other British institutions of higher education with certificates of good housekeeping. Now, like the British Empire before it, the university is faced with the prospect of collapse or, at least, of rapid contraction.

How is the problem being tackled? London's first step was predictable — setting up a committee. There is the obligatory outside chairman (Sir Peter Swinnerton-Dyer, vice-chancellor of the University of Cambridge) and marching orders to suggest how resources should be redistributed so as to keep the university in being ("academic excellence" etc.) at less cost ("having regard to the need to make financial economies" etc.). The committee, which is concerned only with the non-medical parts of the university, has sought to avoid the ructions that greeted the report of the Flowers committee on medical teaching last year by publishing last week an interim discussion document. The result is a collection of figures for the costs of teaching students in different subjects in the various colleges, a solemn warning that the years ahead will see income fall by 15 per cent and student numbers by 10 per cent, and hardly a hint of the recipe for re-organization the committee has promised by the end of the year. The document is thus not so much an interim report as an incitement of the lobbying and horse-dealing that will occupy the University of London for months to come.

That something, almost anything, must be done is crystal clear. For decades, the university has been almost as much concerned with attempts to reform itself as with the teaching of students. The practical difficulty is that change is usually unacceptable to the institutions most affected, which within the federal structure of the university have the final say. The Swinnerton-Dyer committee will succeed where others have failed only if it can persuade the

constituent institutions of the university to bury their separate interests for the sake of the university to which they belong. The weakness of the interim document is that it seems designed to frighten the separate colleges into compliance with some unknown grand design by the threat of penury. The document thus urges that the university and its colleges should urgently consider how to manage redundancies among academic and other members of staff: tenure is plainly no longer sacred. It makes little of the threat, uppermost in the minds of many colleges in the past few months, that some of them may be closed or merged with others; there is merely a statement that the university can distribute as it thinks fit the funds it receives from the University Grants Committee (subject only to what the senate and the court of the university have to say). The strongest hint of what is to come is that university teachers might with advantage teach in more than one college. These possibilities, sensible enough, do not amount to a recipe for a stronger university. And they smack more of the stick than the carrot.

For the sake of the university, the Swinnerton-Dyer committee must find a more positive case to put a year from now. Although the interim document is full mostly of figures, it does acknowledge that in the end academic considerations will be paramount. What should these be? The committee must first count its blessings, which are various but not always obvious. The larger general colleges are comparable in size as well as quality with independent universities elsewhere in Britain. Some of the smaller colleges have a claim on public attention (and funds) for their tradition of educating less highly qualified entrants. Birkbeck College is the only institution of its kind in Britain with the objective of providing part-time students with an undergraduate education. Five of the independent schools (architecture, agriculture, education, pharmacy and veterinary science) are predominantly vocational; their place within the university calls for a frank but sympathetic appraisal. Should they all continue and, if so, should they continue to be supported from central funds as if their students were ordinary students? The risk is that the committee will be mesmerized by the reputations of the outstanding schools, letting the others go hang.

Problems of organization are also likely to obtrude. What kind of university should London become? The paradox in the past decade is that all parts of it have become more independent of the centre, which suits the larger schools well enough but makes it harder for the others to enjoy a sense of being part of a university. Nobody wants to see a revival of the dominance of bureaucracy, but the question must arise whether it is not the proper function of a university such as that in London to be a nursery for new kinds of university institutions — and whether the time has not arrived when places such as Imperial College should be encouraged to go their own way, to become autonomous in name as well as in fact. As things are, the equitable allocation of resources is unmanageable. How can the giants be denied? And how then can the pygmies enjoy a sense of partnership in a common enterprise — not that of being mere pygmies?