

# correspondence

## Good for science?

SIR,—Your editorial "Good for people, bad for science" (July 10) requires a prompt comment, for you apparently advocate a major change in the system of academic tenure. At the same time, your editorial seems to indicate neither an awareness of the complexity of the issue, nor of experience with alternative tenure systems, nor of the considerable literature in this area; I refer here primarily to the tenure system that is very widely used in the USA, the role of the American Association of University Professors (AAUP), and the many articles and books in which this subject has been discussed.

Tenure is generally awarded, in US colleges and universities, after a probationary period that should be long enough to provide sufficient time for a reliable assessment of the capabilities and promise of a faculty member, yet should not be so short as to lead to an unacceptable proportion of bad decisions. The AAUP guideline of a maximum probationary period of seven years is widely followed, but universities will often award tenure much earlier in an attempt to hold on to younger people of exceptional ability. This does not, of course, ensure that all those who have tenure will continue to merit it, and removal for cause (including demonstrated incompetence, as decided by an elected faculty committee) is recognised, though rare.

The major benefit conferred by tenure is the freedom that faculty members should then have to study, discuss and explore without fear, views and topics that may be highly unpopular or controversial at that time. Most scientists pursue careers that are models of conformity and caution, but some may wish to be more adventurous. Research involving human subjects raises strong passions—consider the continuing debates over foetal research and genetic engineering. If these scientists were subject to renewable contracts, it is safe to predict that, for many, caution would increase as the renewal date approached, and topics that may seem of major scientific interest would be neglected if adequate protection could not be guaranteed for those who wished to work on them. These are not hypothetical fears of imaginary but unlikely situations: these pressures on the academic community exist and should be recognised.

There is another serious objection to the proposal for contracts: who would review them and make the decisions on renewal? A senior administrative officer in the university or in Whitehall? With what advice? Or a group of faculty members or the department chairman? One may reasonably claim that professional competence can only be judged by others in the same discipline, but this is more likely to lead to leniency on the part of the reviewers in the hope of similar treatment when their own renewals come up. Leaving the decision to a department head carries other risks: renewal will provide an excellent opportunity to get rid of the abrasive members of the faculty. Indeed, extensive AAUP experience has shown that a major proportion of the threats to faculty members come from other faculty members and from department heads and deans who were once also faculty members. Overall, the apparently attractive idea of renewable contracts bristles with severe problems of implementation, and should not be lightly suggested without at the same time treating this side of the suggestion.

It is not only on the frontiers of research that feelings become inflamed and faculty positions are threatened. Some of us hope that more university scientists will become engaged in what Ravetz has termed 'critical science' (*Scientific Knowledge and its Social Problems*, Oxford University Press, 1971). This involvement in current issues should not need to be partisan but can be in the direction of elucidating complex technical issues to a broader public. Here again, these scientists need the protection of tenure, for, it is clear, those employed in industrial and government laboratories do not have the freedom to engage in these issues unless they are generally on the side of their sponsors. University science departments will probably provide virtually the only source of independent comment, and these scientists will not be able to play a responsible role if their jobs are in jeopardy. Here again, this is not some hypothetical possibility: as 'critical' science has slowly developed in the USA, government and industrial scientists have been conspicuous by their silence.

Those of us who have had experience in faculty matters, with tenure and with the AAUP, recognise that the weakness of the tenure system is the

protection it extends to those who prefer to relax and do little or nothing, but most of us consider this is a modest price to pay for the many advantages. A tenure system can operate no better than those who have to make the decisions; some decisions will be good and others bad. A recent thorough examination of the tenure system (*Faculty Tenure*, Commission on Academic Tenure; W. R. Keast, chairman; Jossey-Bass Publishers, 1973) produced a strong endorsement.

In summary, then, your editorial is disappointing. Perhaps the British universities' tenure system does need overhaul; perhaps a probationary period similar to that in the USA should be considered, along with a greater involvement of the non-professional faculty in matters of faculty promotion and tenure. But I would hope that notice is taken of the extensive and documented experience before adopting a contract system that has a superficial appeal but is potentially severely detrimental to academic freedom.

Yours faithfully,

M. W. FRIEDLANDER

Washington University,  
St Louis, Missouri 63130

## Fellows overseas

SIR,—I can well understand the frustration felt by UK postdoctoral fellows overseas as described by Richard James (August 7). Since I doubt that the "structure of the UK University system" will change, I can perhaps do a little to put the position straight, at least as I see it from my department, and make a suggestion.

All of us want very much to appoint the best people to the few lectureships available. Our system of advertising the posts as soon as we are assured of the finance is not only efficient but is fair and should not be classified as ponderous. It would unnecessarily delay matters to set a deadline for receipt of applications which gave time for the advertisements to be seen by all potential applicants overseas. In my experience we never keep strictly to the deadline, and will always consider late applicants and give special consideration to those who are overseas. A brief airmail statement to the effect that a formal application is on the way is certainly helpful. In short I do not believe that the heads of departments handling the regrettably

small number of lectureships are unsympathetic and ponderous.

I agree that it would be better if we could all plan appointments much further ahead than we do at present. I think this is unlikely to happen in the foreseeable future. May I suggest, therefore, that it would be very helpful if overseas postdoctorals who are interested in returning here keep in touch with their former head of department and, more important, make an arrangement with a former colleague who would provide information concerning any vacancy that might be of interest.

Yours faithfully,

P. N. CAMPBELL

Department of Biochemistry,  
University of Leeds, UK

## Engineering standards

SIR,—In "Round Britain (July 31) you report, and seem to approve, the Committee of Vice-Chancellors and Principals' pressure to increase the academic standard of British engineers by encouraging employers to insist on higher degrees. My job is engineering design and project management in an advanced field (fast reactors), and I can sympathise with the CERN engineers who despair at the often woefully inadequate capabilities of British industry; but I should need a lot of convincing that this has anything to do with the number of years people spend at university. Most would agree that where fast reactors are concerned the ranking order of national success is France, USSR, United Kingdom, with USA, Japan and West Germany following somewhere. I am pretty certain that this does not correlate well with the national proportions of engineers holding higher degrees, but perhaps the vice-chancellors would like to give us some statistics?

Success in advanced engineering projects obviously demands a reasonable level of theoretical ability, but it depends much more on the attitudes and policies prevalent nationally and within industrial firms, and on the ability of engineers to handle unfamiliar and very complex technical and organisational problems with imagination and good judgement. I suggest that to encourage large numbers of men to spend two or three years calmly researching esoteric problems is not likely either to improve government and public attitudes to engineering or to develop the necessary flexibility in the men concerned.

For my money I would support the Open University against all the dignity of the vice-chancellors; its technology courses are designed to stimulate thoughtful, imaginative and socially responsible attitudes. It is being squeezed financially by the government

that conceived it, and it is also not yet receiving the recognition it deserves from professional bodies. In these circumstances to channel extra resources into expanding post-graduate engineering departments would be short sighted indeed; what is needed in British engineering is more excellence and public acceptance at first degree level, not more narrow specialisation.

Yours faithfully,

JOHN A. GATLEY

Knutsford,  
Cheshire, UK

## All at sea

SIR,—Recently (May 8) you reported on some of our work in your editorial "For those in peril on the sea". Scientists and crew aboard research vessels co-exist under tension, created mostly by the needs of scientists and felt mainly by crew; tension which can and does erupt into unpleasantness. This costly problem is now recognised by the Canadian and German governments, for example.

Our most basic finding is that this situation results from locking two warring sub-cultures—academicians and people of working-class orientation—on a ship at sea where they cannot avoid each other as on land. The single most important cause of tension is the "data hunger" of scientists and their degree of sensitivity to the relaxation needs of the crew.

Many scientists, yourself included, have criticised our findings. Unfortunately, they all did so having read only a news release (which mentioned only Bernard). Published work should be read before criticism. We question your saying, "for half the price of placing an anthropologist . . . (you) would have been happy to tell" ONR about shipboard life. The total cost was less than three days' 1972 ship time (and covered part of a larger project to describe human relations numerically).

It is important for scientists to realise that mariners' views differ intrinsically from your editorial. For example, you compare the chief scientist with a referee, and believe that captains always want to get ships to port a day early. But captains also see themselves as referees, and believe that scientists always want to get ships to port a day late. Whether any of these sentiments are true (in fact ships do dock both early and late) is irrelevant. The important thing is that these sentiments are believed by those concerned, and insensitivity by others to these beliefs causes conflict.

Anthropologists rarely learn much that the natives, like yourself, do not know. Your observations affirm some of our work. We hope to hear from

other members of the ocean science community on conditions aboard any nation's vessels. A dialogue might help prevent Bransfield-like incidents.

PETER D. KILLWORTH

Cambridge, UK



RESULTS of competition No. 1. Readers were invited to supply the minutes of an illicit seminar held by scientists somewhere in the Western world. Though we withheld judgement for as long as possible, we were finally forced to recognise that there simply wasn't a welter of witty replies held up in the post somewhere. It may have been that the subject was too baffling for many to cut their teeth on. Winner from the half a dozen entries was E. Jarvis, of Clapham, London (entry below). A further prize goes to Scott Gilbert, of Johns Hopkins University, Baltimore, for a near miss.

### AMSS in session

THE Anti-Metric Society of Scientists held a meeting at a secret location in Mile End Road.

It was resolved that they would not budge an inch in their efforts to resist metrication and that they would continue to fathom out ways to circumvent its introduction. The problems were more than pint-sized but there was still much mileage in their opposition activities.

Contingency plans were drawn up to ensure that members would at least obtain their pound of flesh; an issue would be made of diamond cutters for reducing litre glasses to pints and pocket saws for cutting down metre rules to yards.

The ladies' committee announced that Valentine Cards inscribed 'I love you a bushel and a peck' would be available to members by the dozen.

Competition No. 2. An easier test this time, with a longer time limit of six weeks to allow for mental as well as postal blockages. A prize of £10 awaits the winner (or winners):

There was a young lady called Bright,  
Who travelled much faster than light,  
She went out one day

In a relative way,  
And arrived home the previous night.

Ms Bright and her épéeist companion Fisk are already immortalised in limericks with a scientific flavour. Competitors are asked to submit further examples based in similar vein, on fundamental scientific principles, observations and so on. □