Preparation for university

SIR — As a college (university) representative on the governing body of a secondary school. I recognize only too easily the educational problems set out in your leading article (*Nature* **377**, 2; 1995).

It is convenient for universities to recruit students who have already covered much of the material taught in the first year of a three-year course, possibly releasing more time for research; and, naturally enough, secondary schools whose academic success is measured by the number of sixth-formers going on to university fall in with what the universities appear to want; but if one asks dons, teachers, parents, pupils and educationalists what is desirable, nearly all opt for less specialization and a smaller workload at sixth-form level for the reasons that you so clearly set out.

One undesirable effect is to deflect able students who could become good scientists into the arts as offering more scope for creative thinking, thus avoiding the long march towards the front line of science burdened by knapsacks crammed with unassimilated information. As you say, other countries produce good scientists without inflicting a specialized education upon them at too early an age: for instance, John Enders was reading English at Harvard when he became interested in microbiology.

What is now needed is a conference involving headmasters, vice chancellors, educationalists — and why not some able sixth-formers? — to work out a more sensible policy which would then be tried out in some schools and universities willing to take the risk. Mrs Gillian Shephard is just the right person to convene it.

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SIR — There is nothing "strange" about the view that A-levels have become easier, as the view follows easily establishable facts. Joe Ruston (letter, *The Times*, 24 August 1994) pointed out that candidates prepared for the 1994 A-level examination in physics could have attempted questions accounting for only 22 per cent of the marks in the 1974 paper. By contrast, candidates prepared for the 1974 paper could have answered all of the questions in the 1994 paper (disposing of the argument that the syllabus has broadened but not declined in standard). Indeed, candidates prepared for the 1974 O-level could in fact have answered questions amounting to 40 per cent of the marks of the 1994 A-level. If discussions on quality in science education, and its change over time, are to have any credibility, it would be helpful if they would take these facts into account.

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Cost of psychiatric care

SIR — It was stated in a recent leading article that "psychiatric hospitals are expensive to staff and run" (*Nature* **376**, 714; 1995). This is a common misconception.

A recent paper published by the Institute of Psychiatry and the University of Kent provides evidence that "good community care is not a cheap option" (A. Hallam, *Mental Health Research Review* **2**, 29–32; 1995). After a nine-year study of the closures of two long-stay psychiatric hospitals in North London (Friern and Claybury), the paper concludes that the costs of hospital and community care are essentially the same, but that the mean cost per patient will rise as the final cohorts of "difficult to place" patients are discharged. Furthermore, the final mean patient cost may continue to increase because "as the psychiatric institutions disappear, inpatient episodes usually take place in acute, general hospitals, at a cost which may be four or five times greater [than in a psychiatric hospital]". The public perception of mental illness is already coloured by plausible but unsubstantiated beliefs. In the brave new world of "evidence-based medicine", *Nature* is an old hand at sifting evidence, and should therefore be careful not to advance such unsubstianted beliefs.

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Greeks overseas

SIR — We represent a group of Greek scientists around the world who have not yet served our 18-month national service, pursuing our career in science with the encouragement of the state through continuous exemptions from the armed forces. There are probably 30,000 of such males in the 25–35 age range, mainly in Europe and the United States.

We are unable to return to our homeland without facing charges and doing national service for at least a year and a half, a devastatingly long time in the career of a research scientist. Consequently, we are not able to visit our families or search for academic and resesarch positions in Greece. Our inability to return home creates serious personal problems with repercussions for a large segment of Greek society. The government announced the implementation of a new law in October 1994 that in principle would allow us to serve partially and resolve the present difficulties. The current law, which allows the further exemption of "distinguished" scientists abroad, is not properly implemented, because the reviewing procedures are carried out by military personnel and not by scientific referees.

Many of us, apart from scientific responsibilities, have family obligations that force us to move abroad. We appeal to the Greek authorities to accelerate the process for the implementation of the new law and to provide us with the opportunity to pay our dues to Greece without severe setbacks in scientific research and our personal lives. The brain-drain could thus be halted.

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Salk and science

SIR — Renato Dulbecco's otherwise excellent obituary of Jonas Salk (*Nature* **376**, 216; 1995) is marred by its conclusion. Dulbecco writes that Salk "...received no recognition from the scientific world.... The reason is that he did not make any innovative scientific discovery. The fact that a fundamental advance in human health could not be recognized as a scientific contribution raises the question of the role of science in our society.... It is true that [Salk] did not contribute any technological advance; but is science only technology?"

I think this has matters exactly backwards. Salk made an extremely important technological advance: he showed how to apply scientific knowledge to make a polio vaccine. Science, however, is not technology. Rather, it is the discovery and systematization of knowledge about the natural world. This, *inter alia*, makes technological advances such as the polio vaccine possible.

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