Science reforms in Hungary

SIR — Christopher Anderson's article (*Nature* **352**, 745; 1991) is headed "Hungarian science faces sweeping reforms". New bills for higher education and for the Hungarian Academy of Sciences that will be key factors in the development of education and science in Hungary will soon be before Parliament.

The establishment of 'sterile' research institutes in the framework of the national academies was part of Communist science policy in Eastern European countries. The artificial segregation of science and higher education on a scale unknown in Western societies still threatens Hungary with the lowest ratio of university-educated people in Europe. The academy's research institutes must become fully integrated with the universities to raise the level of higher education, because there is neither enough brain power nor money for duplication.

The all-powerful Hungarian Academy of Sciences controls scientific qualification, awards virtually all the funds for research grants, runs 52 separate 'academic' institutions, and wants to continue to do so in the future.

Many of the Hungarian universities are against the so-called academic plans including the Athenaeum Initiative, and want an independent government agency to distribute grant money coming from the taxpayers. There are also demands that the academy should relinquish its bureaucratic control over the universities through its privileged issuing of scientific degrees which are required for tenure and for appointments to chairs.

Those responsible for the future of higher education, science and research in Hungary agree with the subtitle of your report that the "universities will switch to [the] Western model", but only if the Hungarian Academy of Sciences also switches to the Western model, and its hold over the universities is abolished. Otherwise the "sweeping reforms" may well be "brushed under the carpet", and the status quo will continue to destroy what is left of science in this country after 40 years of Communist repression.

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Thesis defended

SIR — However desirable, publishing papers is not the main objective of a PhD project, although it is of course intended that the research will add to knowledge and that parts of it will be publishable (L. H. Breimer and D. Mikhailidis, *Nature* 353, 789; 1991). Ex-

pecting each PhD candidate to produce at least four 'first-author' publications is completely unrealistic in a situation where projects are undertaken within a wider research programme.

Not infrequently, it is the final phase of a PhD project that is the most successful and productive period. Awarding the degree on the basis of a comprehensive thesis submitted shortly after completion of the work is surely preferable to requiring candidates to 'sit out' the long publication lag time before being allowed to submit. And what if (as sometimes happens) other investigators publish similar work as a project nears completion?

Our present style of thesis challenges the candidate to bring together the results of 3–4 years of research and to organize its presentation into a coherent account of what has been achieved. The resulting thesis is an aid to others in the laboratory and to succeeding research students in quite a different way from a set of published (and 'polished') scientific papers. The latter are unlikely to dwell on the negative results of the project, but these could be important to subsequent researchers.

The proposal by Breimer and Mikhailidis that their new system should coexist with current procedures is reminiscent of the (apocryphal) government plan to bring the United Kingdom into line with other countries and drive vehicles on the right-hand side of the road. "From January 1st, all cars will drive on the right. If, after 6 months, this experiment is successful, buses and trucks will be required to do the same."

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Population crisis

SIR — Fernando Orrega (*Nature* 353, 596; 1991) has been carried away by his lack of enthusiasm for the United Nations Population Fund. We certainly make mistakes — including using wrong per-capita food production figures in our 1991 *State of World Population* report. But he assumes that our mistake indicates cynicism or criminal carclessness — and that we do not accept.

We (and the Food and Agriculture Organisation, from which the data came) got the figures right in the 1990 State of World Population. They are not comforting. They support the idea that there is an impending food crisis in developing countries, and that rapid population growth has a lot to do with it. The World Bank — which Orrega quotes — also takes this view.

There is a similar crisis in education. Mixing up enrolment figures with children at school does not help. There are 105 million children not at school and this figure will double by the end of the century, according to UNESCO. They may or may not have been enrolled in school at one time, as Orrega claims, but they are not at school now.

The cost of providing education and health care for children is significant, even in developing countries. That is one reason why people in developing countries are having fewer children. India claims to have averted 108 million births. Does anyone — even Orrega — seriously contend that India would be better off if they had been born? That is, if India's population was now 1,000 million instead of nearly 900 million?

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Schizophrenia

SIR — Julian Leff (Nature 353, 693; 1991) describes how the failure of the psychiatric geneticists to confirm their own work in schizophrenia as well as the failure of others to confirm it has encouraged psychotherapists to rise again. Leff considers this movement to be mainly confined to Sweden but it also exists in the United Kingdom. Nowadays, cognitive therapists may be found actively blaming mothers for causing mental illness in their children. True biological psychiatrists are rare birds. Lip service may be paid to biological psychiatry, but underneath the blaming goes on.

Psychiatry today is, I believe, on the wrong tracks entirely. More and better neuroleptics are not the answer. Seeking the cause in each individual unmedicated case is of supreme importance. With Baruk, I would get rid of the idea of schizophrenia as a disease concept. Let us find its many causes and name them according to the metabolic fault causing the psychiatric symptoms.

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Alan Blumlein

On 23 May last year (*Nature* **351**, 264; 1991), we published a letter from Francis P. Thomson asking for material relevant to a proposed biography of Alan Dower Blumlein. It has since come to light that Mr Thomson is unable to produce evidence of work on such a book, that he has declined to make the material already collected available to others and that readers would be ill advised to accede to his request for biographical material. — Editor, *Nature*.