

correspondence

Higher education

SIR,—May I comment on two related articles on higher education which have appeared in recent issues of *Nature* (November 13 and 20)? The question of whether universities should be concerned with “education” or with professional “training” is raised in relation to the balance of faculties and the cost to the taxpayer.

In my view there is a need for two distinct types of higher educational institution. One of these, traditionally universities, should be principally concerned with scholarship and furthering the bounds of human knowledge, and with passing on the fruits of such knowledge and research, through teaching, to any who are sufficiently interested and wish to receive it. Examinations, if they are appropriate here at all, should not take the form of professional qualifications, but should rather be used for selecting academics to continue the work of the university.

The other type of institution should have the specific function of training for professional qualifications. Such an institution might be a polytechnic where the teaching should be geared to qualifying examinations for professional men expecting to practise in medicine, the law, sciences, engineering, business management or whatever. The teachers should have had some years of practical experience and they should constantly refresh that experience on a sabbatical principle or by periodical exchanges with practitioners. Research work should be aimed at practical application in response to the needs of industry, hospitals and so on.

Universities should be reduced in number and much reduced in size, but the balance of faculties should certainly be maintained. This would provide an environment for the broad education of relatively few who are academically inclined and who would be expected to achieve the highest standards of excellence in scholarship, imagination and innovation.

Polytechnics could afford to be more specialised and might benefit from it. In order that the trainees should not suffer from a lack of education in the broader sense, the polytechnics should allocate some course time to a variety of subjects for which the universities could send lecturers and set up

seminars. There would be no examinations in these extra-curricular subjects and a wide choice should be offered.

The courses offered by polytechnics should ensure that a sound basis of theory and practice is achieved, and the chartered professional bodies should have a considerable voice in the curricula and in the form and content of the qualifying examinations. In some professions where developments are rapid, it might be desirable to insist on further training and examination at intervals to ensure that high professional standards are maintained throughout a career.

Developments in the future along these lines might ensure better academic research, better professional standards, and give better value for the taxpayer's contribution to higher education.

Yours faithfully,
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The protein gap

SIR,—Man has always desired simple answers to the complex problems of the world; to reduce everything to a common denominator. Many have done this with regard to nutritional problems, claiming over the past twenty years that protein was the only answer. As Drs Waterlow and Payne point out in their article “The Protein Gap” (November 13), this is not true. Unfortunately they then fall into the same error by concluding “the protein gap is a myth and what really exists . . . is a food gap and an energy gap”. The new simple answer for them is energy.

Protein-energy malnutrition, be it kwashiorkor or marasmus, has never been, except in the rarest of cases, a single nutrient deficiency disease. It has always involved the lack of vitamins and minerals as well as energy and/or protein and all the other factors required for good nutrition.

To talk only of energy and protein as the FAO/WHO report did, and as the authors do, is meaningless. To suggest merely that more of traditional diets is all that is needed is, in most cases, no solution to nutritional problems. Many of these diets were shown to be inadequate by early workers such as McCarrison and they continue to be shown so in current studies.

Nutrition deficiencies are encoun-

tered primarily in populations with a limited choice of foods. Adequacy is best assured through the use of a wide variety of foods having complementary patterns of nutrients, as has been pointed out by the US National Academy of Sciences. This means improving traditional dietary patterns.

Until man is willing to reckon with the complexity of the nutrition problem and to deal with it as such, he is doomed to repeat the errors of the past.

Yours faithfully,
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Human consumption

SIR,—The statistic of the Potato Marketing Board quoted in *Nature* (December 11, page 484), and quoted here in full,

“Contrary to the trends in all other countries in the European Economic Community the rate of movement into human consumption in Great Britain increased during the three previous seasons (and shows a provisional offtake for 1974/75 of 222 lb per head per annum)”, may suggest spud-deficiency to you, but it may imply an alarming increase of cannibalism to others.

Yours faithfully,
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Peace Prize

SIR,—Your leader (October 16) concerning the awarding of the Nobel Peace Prize must be the ultimate expression of English diplomacy. Tell me, what better example anywhere of peaceful struggle for freedom is there than Sakharov's? No one would have to lose any freedom themselves to satisfy his requests, and unlike some prizewinners he would not have to lay down his gun to pick up the prize. Yet you say it shouldn't be given because it might be offensive to the bureaucracy of the Soviet Union. What utter hypocrisy for such an editorial to appear at such a time.

Yours faithfully,
FRANK SORENSEN

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USA*