

rather than seek to maintain established practices simply because they may seem to be correct from the narrowest viewpoint of immediate vocational training".

(ii) It is more difficult to counter your statement that the committee "bemoans the difficulties which beset chemistry graduates seeking jobs", because it is entirely fiction, and I can only challenge you to produce quotations from the report in support of your assertion. In the matter of job shortages you may have been misled by your Education Correspondent's statement (not taken from the report) that "chemistry graduates have consistently formed the largest proportion of unemployed scientists six months after graduation"². This is, in fact, the case (and not surprisingly so, since there are more graduates in chemistry than in any other science), but surely much more significant is the fact that in 1968 and 1969, the latest years for which official (UGC) figures are available, the percentage of chemists still unemployed six months after graduation was below the average for all science students, and in 1969, for example, the figure, 3.7%, was less than half of that in zoology (8.0%) or combined and general biological sciences (8.3%).

(iii) You write that we "respond to the general feeling among chemists (in industry) and employers that a capacity to write literate reports would be an asset" by "woodenly proclaiming that we cannot recommend that a formal course in report writing and the use of English should form part of all chemistry degree courses", and you add that we "pass the buck downwards to the secondary schools and upwards to induction training". We were not, contrary to your assertion, responding to an opinion that capacity to write literate reports would be an asset, which no one could possibly question, but to the view that *instruction* in report writing and use of English *should be included in all courses*, and as far as buck-passing is concerned you carefully omit

our comments that "the student's ability to write clear and correct English must be laid in the secondary schools, though university chemistry teachers can help the student build on these foundations", and "University teachers of chemistry should give thought to informal means of improving a student's ability to present a clear report", which we followed up by practical suggestions.

I hold the opinion, with you, that chemistry courses must be made more attractive to good students. But I cannot, as you do, condemn the present courses because 26% of the undergraduates disagreed with the statement that the present courses are "modern, lively, and up to date", since, given the spread of student inclinations and abilities, I think it likely that almost any course in any subject will be found deficient by this sort of proportion. Furthermore, while I, along with the rest of the committee, am strongly in favour of the broadening of chemistry courses along the lines indicated above, I am not aware of any justification for the view that making chemistry courses much more general will in itself greatly improve their attractions, and it is noteworthy that only 14% of the chemistry undergraduates surveyed considered that their courses involved too much specialization, while 21% considered that they involved too little. Something much more imaginative is needed, and at least one radically novel approach to undergraduate chemistry teaching has already been introduced in the light of the information presented by the committee^{3,4}.

A final point. Chemists, whom you condemn for their conservatism, should at least be given credit for commissioning and publishing a thorough sociological survey of the attitudes of chemists and chemistry students. There is not the slightest reason to believe that the deficiencies and dissatisfactions it reveals are confined to chemistry and, indeed, the Docksey Report gives a clear indication

that some of them are not. Non-chemists who seek to use the information in our report to attack chemists and chemistry courses might do well first to carry out similar surveys within their own disciplines to find out just how far their own houses are in order.

Yours faithfully,

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¹ *Nature*, 228, 1242 (1970).

² *Nature*, 228, 1244 (1970).

³ *Chemistry in Britain*, 6, 330 (1970).

⁴ *Nature*, 228, 649 (1970).

REGRETTABLY this letter, received early in January, has not been published before this for reasons connected with the postal strike and not through any fault of Professor Eaborn's.

The chief complaint of the leading article was that the committee had been complacent and that the report would have a conservative influence. Unfortunately the report is a quarry for quotations which support this view and which tend the other way. Thus the report says "We are not convinced by arguments in the Swann Report that graduates would be more useful to industry if they had studied a wider range of scientific subjects to a less advanced level than is customary now in the special degree. We do not accept that any possible gains would outweigh the loss of professional competence in the subject of specialization". The recommendations that there should be more options are introduced with the phrase "While there is no convincing case for broadening all chemistry degree courses . . .". It is good to have Professor Eaborn's assurance that the report is really a recipe for reform; the difficulty is the impression created in the report that reform could be accomplished without substantial change.

On the three specific points raised here: (i) This was a reference to the decline of recruitment to chemistry departments. The report says "This state of affairs is a matter for concern for the country in general . . .". (ii) The committee says that "it is true that the student image of industry is in some respects inaccurate and is not wholly favourable, but there are no grounds for believing that this is a consequence of anything in the degree course . . .". (iii) Can the blind lead the blind, even informally?—Editor, *Nature*.

Announcements

International Meetings

May 4-5, **Electrical Association for Women Conference**, London (Electrical Association for Women, 25 Foubert's Place, London W1V 2AL).

May 8, **Human Diseases in the Seventies**, London (The Conference Secretary, Joint Biology Committee, 2 Bramley Mansions, Berrylands Road, Surbiton, Surrey).

May 18, **Perspectives in Laboratory Animal Science**, London (The Honorary Secretary, Laboratory Animals Science Association, c/o Canterbury Biological

Laboratories Ltd, 45 Sandwich Road, Ash, Canterbury, Kent).

May 24-27, **New Trends in Educational Technology and Industrial Pedagogy**, Knokke (Secretariat, Lamoriniestraat 236, B-2000 Antwerp, Belgium).

June 2, **Presenting a Technical Lecture**, London (Institute of Electrical and Electronics Engineers, 2, Savoy Hill, London WC2).

June 4, **Two-phase Morphology of Block Copolymers**, Colchester (Professor M. Gordon, Department of Chemistry, University of Essex, Wivenhoe Park, Colchester, Essex).

June 7-9, **Evolution of Genetic Systems**, Upton, LI (Harold H. Smith, Brookhaven

National Laboratories, Upton, New York 11973, USA).

June 28-July 2, **World Energy Conference**, Bucharest (The Secretary, British National Committee, World Energy Conference, 5 Bury Street, St James's, London SW1).

July 5-8, **Shock Tubes**, London (Symposium Secretary, Department of Aeronautics, Imperial College, Prince Consort Road, London SW7).

September 21-October 2, **Methods of Prospecting for Uranium Minerals** (NATO Advanced Study Institute), Imperial College London (6 day course of lectures) and Cornwall (2 days of field work) (Dr Michael Davis, UKAEA, 11 Charles II Street, London SW1).