

drazyls, nitroxides, other nitrogen radicals such as aminium salts and nitro-radical-anions, aroxyl radicals, and some of the less well studied species in which the unpaired electron is associated with, for example, a boron, phosphorus, or sulphur atom.

Each group of radicals is discussed from the point of view of preparation and both chemical and physical properties. Under physical properties, thorough attention is paid to the electron spin resonance spectra of the radicals and the information they provide about the structures of the species; there is also an adequate introduction to this spectroscopic technique. Indeed, the blend of physical and organic chemistry which the authors have achieved is unusually good and provides stimulating reading.

There are probably few undergraduate courses which will require so detailed a treatment as this book gives, but for graduate work it should be an excellent source of material. For anyone doing research into the physical and/or chemical properties of organic radicals in solution, the book must be close at hand.

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SIR,—In his article (*Nature*, 222, 421; 1969) Professor Flowers states that the average American income, measured by added value, is about £5,000 per annum, or four times the corresponding average British income of £1,300 per annum. The conversion of the American income from dollars to pounds sterling appears to have been carried out using the standard rate of exchange of \$2.4 to £1; this is not a valid basis for such a comparison, because £1 in Britain buys much more goods and services than does \$2.4 in the USA.

During several months in the USA over the last three years I have made a detailed comparison of relative costs in the UK and in the USA, in order to determine how many dollars are required in the USA to buy what £1 will buy in Britain; the result is as follows: housing: buy, \$6 per £1; rent, 10; food, 4.7; alcohol and cigarettes, 2.0; clothing, 4.0; fuel and light, 4.3; motoring, 7.1; manufactured goods, 3.5; services, 8 to 11.

(In motoring, petrol costs have been reckoned on miles necessarily driven per year, which are three times larger in the USA than in Britain on account of the lower population density; the cost is also based on American cars, which have a high petrol consumption and rapid deterioration; these factors account for the apparently unexpectedly high cost ratio; they make no significant difference to the final result obtained below.)

The average of these values, weighted according to the distribution of spending among these various goods and services in Britain (*Manchester Guardian Weekly*, April 1969) gives a rate of exchange corresponding to the relative purchasing powers of the pound sterling in the UK and the dollar in the USA. The result is \$5.2 to £1.

Sales and purchase taxes are included in this figure (if they were not it would be more than 5.2); income taxes are similar in the two countries. The average British income of £1,300 is thus equivalent to \$6,760 in the USA. To this must be added the value of medical services and higher education which in Britain is paid for almost entirely by taxation: if I remember rightly (I do not have access to the exact figures here) they amount to about £2,000 million per annum or £100 per annum per employed person, equivalent to \$1,000 in the USA (because the rate of exchange for professional services ranges from 8 to 11). The average British income is therefore worth \$7,760 in the USA.

The average US income (March 1969) is \$9,430 (*New York Times*, April 27, 1969).

Thus the average British income is equivalent, in purchasing power, to 80 per cent of the average US income. A similar survey recently carried out by the UN Secretariat estimated it at rather more than 70 per cent, but may not have included medical services and higher education.

Can we equate this directly with the "standard of living"? I think that before doing so we should add something for the value of public services, utilities and buildings, and these are better by far in Britain than in the USA. How much is added depends on how much weight is to be given to quality of environment; I doubt that British people would rate it below consumption of manufactured goods. The British "standard of living" is then 90 per cent or more of that in the USA.

American wealth is a myth; it serves no useful purpose to Britain to perpetuate it.

Yours faithfully,

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The Seychelles

SIR,—In the article "Morphological Continental Drift Fit of Australia and Antarctica" by W. P. Sproll and R. S. Dietz (*Nature*, 222, 345; 1969) reference is made on p. 347 to the "Seychelle Islands".

This usage is incorrect. The islands are named for the Marquis de Séchelles and should be referred to individually or collectively as the "Seychelles".

Yours faithfully,

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Scientific Training in Africa

SIR,—On leave from Botswana, I have only just read the letter from Gustav Jahoda (*Nature*, 220, 1356; 1969) in which evidence was given that neither "university education in general . . . nor any particular type of course, including scientific study, had any discernible impact on magico-mythical beliefs entertained by the (African) students". The writer suggested that more direct methods of reducing such beliefs might have to be explored if the prevalence of such beliefs is an obstacle to the growth of scientific activity.

At Swaneng Hill School in Botswana there are two main lines of attack on this problem. One lies in teaching science so that three main points are explicit: that physical happenings have a physical cause, that a knowledge of science leads to a mastery of the environment and that superstition inhibits progress by reducing self-confidence and the will to tackle physical problems. Wherever possible there are free discussions where new material encountered in science lessons conflicts with traditional beliefs. We try to lead our students to reach their own conclusions over a period of time, rather than to call for an instant rejection of long-held beliefs.

The science teaching is reinforced by a course in development studies taken by all students. This course traces the ways in which primitive societies have developed into modern industrial nations. There is a section dealing with scientific development, in which the achieve-