which the everglade kite subsists in Florida is *Pomacea* paludosa, not *P. paludis*. The photograph captioned "The Everglades, Florida" is a view of mangrove swamp forest along the lower Shark River, a tideway of the Everglades estuary, near the Gulf of Mexico. This area is not typical of the Everglades, which is chiefly a freshwater marsh with small islands of trees, nor is it everglade kite habitat.

Yours faithfully,

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The McCarthy Study

SIR,—The McCarthy Report recognizes from the outset that attempts to predict the absolute number of scientists and technologists required by the British economy are most likely to be unsuccessful and concentrates instead on attempting to predict the relative proportion of specialist scientists to generalist scientists. Unfortunately, the report does this by averaging over different disciplines in an inadmissible way. In fact, if one breaks the result down into different disciplines the result, including management in the rescarch and development figures, is as follows:

Table 1. EMPLOYMENT OF SCIENTISTS AND ENGINEERS IN AMERICAN INDUSTRY BY DISCIPLINE FOR 1962 AND 1968*

1962	Total	Engineers	Physicists	Chemists	Mathns.	
All industries R&D , , Per cent Manufacturing R&D Per cent	851,600 303,800 35 630,400 267,200 42	684,600 220,900 32 489,800 194,600 40	$18,900 \\ 11,800 \\ 85 \\ 11,400 \\ 9,700 \\ 85$	81,600 45,500 56 69,300 40,500 58	$14,700 \\ 7,800 \\ 53 \\ 9,800 \\ 6,100 \\ 62$	
1963						
All industries R&D ,, Per cent Manufacturing R&D	871,400 344,900 40 653,500 300,800	711,600 260,900 37 5 21,600 230,200	$14,500 \\ 12,500 \\ 86 \\ 11,000 \\ 0.600$	74,300 43,800 59 65,800	20,400 10,900 53 12,600 7,500	
Per cent	46	230,300	9,000	89,100 59	7,500	

* Taken from *Statistical Abstracts of USA* 1964, 1966 quoting as source NSF US Department of Labour, Bureau of Labour Statistics.

From the table it can be seen that as far as physics is concerned, and to a lesser extent chemistry and mathematics, the great majority should be trained as specialists so that unless we are able to predict absolute numbers we are no further forward. The breakdown of the figures for the United Kingdom into various disciplines does not seem to be available, but as far as basic research is concerned perhaps one might find a clue by examining the sources of papers submitted to the *Physical Review* and to corresponding British journals—*Proceedings of the Physical Society* and *Philosophical Magazine*.

Table 2.

Classification	Educt. (1)	Govt. Lab (2)	Industry (3)	1 + 2	$\begin{array}{c} \text{Joint} \\ 1+3 \end{array}$	2+3
UK (Proc. Phys. Soc. and Phil, Mag.)% USA (Phys. Rev.) %	77 67	14 9	1 ² 17	4 2·3	0.6 3.7	0.5
Origin of papers in Phil. Mag., July 1967- 1967.	Phys. Rev -October 1	. 164 and 1 968 and Pr	.65 compare oc. Phys. Sc	d with c. May	the sate to Dec	me for ember,

The results are set out in Table 2 for a more or less random sample of issues of the various journals. It may well be true that a major part of the contribution from American industry to the *Physical Review* represents prestige projects, but presumably this is intended to attract good physicists into industry and subsequently to interest them in more immediately profitable research. In conclusion, until some more satisfactory method is found for estimating future requirements of trained manpower, it would seem to be very unwise to reduce the number of specialist physicists in favour of generalists.

Yours faithfully,

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ERBATUM. A mistake occurred in the article "Spectral Properties of the X-Ray Objects GX 3+1, GX 354-5 and Sco XR-1" by G. Buselli *et al.* (Nature, 219, 1124; 1968), because of an inadvertent alteration made in the Nature office to the original typescript. It was stated in the article that the spectra of GX 3+1, GX 354-5 and Sco XR-1 suggest that these three X-ray objects are similar to one another. The data are at variance with this statement, and in fact the authors' conclusion is that GX 3+1, Cyg XR-1 and Tau XR-1 possess similar spectra, and are probably due to similar celestial objects. One of the authors, K. G. McCracken, has written to stress how this conclusion was reached:

"Our measurements of GX 3+1 above 20 keV show a good fit to a power law photon number spectrum given by

$$\frac{dN}{dE} = 3.4 \ E^{-2.0 \pm 0.2} \text{ photons } \text{cm}^{-2} \text{ s}^{-1} \text{ keV}^{-1}$$

which, when extrapolated to lower energies, is in reasonable agreement with the results of Gursky et al. (Ap. J., 150, L75; 1967) and Bradt et al. (Ap. J., 152, 1005; 1968). Furthermore, we note that other workers have obtained power law photon number spectra for Tau XR-1 and Cyg XR-1; for example, Peterson et al. (Proc. Tenth Intern. Conf. Cosmic Rays, Calgary; 1968) quote

$$\frac{\mathrm{d}N}{\mathrm{d}E} = \begin{cases} 3.50 \ E^{-1.91} & \text{Tau } XR\text{-}1\\ 3.58 \ E^{-1.93 \pm 0.2} & \text{Cyg } XR\text{-}1 \end{cases}$$

The spectral exponents in the spectra of GX 3+1, Tau XR-1 and Cyg XR-1 are statistically identical, while there are other objects known to exhibit markedly different spectral characteristics (our paper shows that Sco XR-1.

for example, has
$$\frac{dN}{dE} \sim E^{-3.8 \pm 0.4}$$
 above 20 keV). This sug-

gests that the three X-ray objects GX 3+1, Tau XR-1 and Cyg XR-1 are physically similar to one another. The fact that Tau XR-1 is known to be a supernova remnant, the spectral shape itself suggesting that the X-ray emission from Tau XR-1 may be due to magnetic bremsstrahlung, suggests a similar explanation for GX 3+1 and Cyg XR-1".

CORRIGENDUM. The last paragraph of the article "Surface Forces: Direct Measurement of Normal and Retarded van der Waals Forces" by D. Tabor and R. H. S. Winterton (*Nature*, 219, 1120; 1968) should read: We thank Professor F. P. Bowden for his constant interest in this work, which was carried out with the valuable support of the Gas Council. One of us (R.H.S.W.) thanks the SRC for his research studentship.