Pain and laboratory animals

SIR—The Mobilisation for Laboratory Animals campaign against the government's proposals to update the 1876 Cruelty to Animals Act as set out in the two White Papers (Commands 8883 and 9251) can, sadly, only delay the constructive reforms that are contained therein which undoubtedly would improve laboratory animal health and welfare. A further example of this is a recent letter you published¹.

While most, if not all, would prefer not to use animals for experimental and scientific purposes, unfortunately there are, at present, few valid alternatives and if advances in the treatment of human and animal diseases are to continue, animals will have to be used. In the meantime, efforts should be made by all those who use animals to refine experiments so that no unnecessary "suffering" occurs. (By suffering I include pain, distress, discomfort, stress and other such responses to the experimental conditions.) One must first, however, be able to recognize the signs of this "abnormal behaviour", an appraisal that practising veterinary surgeons and doctors carry out routinely. Furthermore, good stockmen and pet owners are also able to tell if their animals are unwell. While it may be criticized as being subjective, it is still of practical help to the animal, as appropriate treatment for relief can be instituted and monitored (the effectiveness of any treatment has also to be assessed).

It is extremely important for users of laboratory animals to be able to recognize normal and abnormal behaviour. The proposed liaison between the veterinary surgeon, the person with day to day responsibility and the user, as set out in the white papers, will do much to attain this goal. Pain is often an unwanted variable in the experimental situation and scientists would, therefore, be happy to eliminate it.

The recognition of pain and its assessment has been the subject of a recent publication² and a seminar to address this question was organized by the British Veterinary Association Animal Welfare Foundation (the proceedings will be published shortly). The topic of relief of pain in animals has also been addressed³. It has been disputed by Sharpe¹ that levels of pain cannot be recognized but I would take issue with this and would like to cite one of many examples of how this can be achieved. Lameness may present in animals in several ways; the animal may just show a limp (mild), the limp may have an evident effect on the movement (moderate), or the animal may hold the affected leg off the ground altogether (substantial). Thus the pain involved in this instance has been subdivided on clinical grounds and has obvious implications for the clinician. This can equally apply to

experimental animals and to other body systems and I would suggest that while one cannot be precise in the estimation of pain, or its quantitation, it is possible in many instances to predict and allocate pain into categories.

Where the government's recent proposals have so much to commend them is in their intention to control the amount of pain in experiments, as suggested in the BVA/CRAE/FRAME proposals, to balance pain against potential benefit. Three categories of pain (severity) have been proposed and for the first time a termination of experiment limit less than "severe and enduring pain" will have been instituted. There are many other such positive and constructive proposals in the white papers, for example control over breeding, supply and care of animals, a tighter licensing system, a strengthened inspectorate and a new statutory animal procedures committee. Regrettably a less positive proposal is the imposition of fees on an already overburdened and under-financed research budget.

In conclusion I would support the view that pain often can be categorized and the government's proposals should benefit both animal welfare and science in the long run.

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1. Sharpe *Nature* 316, 286 (1985).
2. Morton & Griffiths *Vet. Rec.* 116, 431-436 (1985).
3. Flecknell *Lab. Animals* 18, 147-160 (1983).

German universities

SIR—In Jürgen Neffe's article on West German universities (*Nature* 11 July, p.96) the main reason for students' protest against amendments to university regulations is mentioned explicitly. However, what your correspondent calls the "obviously reactionary character" of the suggested improvements should be explained in more detail.

The German federal *Hochschulrahmengesetz* (HRG) outlines a framework for regulations by the *Länder* only. Indeed, the *Land* of Hessen, in implementing the HRG of 1976, had shifted the balance within university committees to a wider group in 1978 and more drastically in 1980. One asserted aim of its regulations was to make it possible for professors to be outvoted, even when they are unanimous among themselves.

The combined representation of students, assistants and non-academic personnel was fixed at 55 out of a total of 90 delegates, leaving the remaining 35 for professors, who are thus a minority of 38.9 per cent. Consequently presidents and vice-presidents of Hessian universities have often been elected when 90 per cent of their professors have voted against them. Moreover, in elections for the delegates of the different groups, more than 85

per cent of professors, but fewer than 25 per cent of students and non-academic personnel, actually vote. The federal government intends to increase representation of professors to 50 per cent to make the framework comparable with that in other countries. Professors can still be overruled, but not if they are unanimous among themselves.

Government, *Bundestag* and *Bundesrat* are thus helping the universities to elect scientifically outstanding candidates as presidents and vice-presidents in Hessen and other German *Länder*. We do not consider this "obviously reactionary".

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Spellbound

SIR—Your correspondent Monique Mulder (*Nature* 20 June, p.626), claiming some knowledge of the Kalenjin languages, suggests I misspelt the name of my colleague John Kimengich, as the spelling deviates from her bovine concept of its etymology. This is something over which we could argue until the cows come home, but in general I make it a rule to spell people's names in accordance with their own practice and not to worry unduly over conjectured derivation and meaning.

As your correspondent would have us believe that one of her names is "Borgerhoff", I commend this principle to her as one she would be well advised to encourage.

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Chance encounters

SIR—We are collecting data on: (a) references in the literature to the role (however limited or extensive) of chance in the advance of science, engineering and technology; (b) personal experiences of serendipity unrecorded, or incompletely referred to in published papers.

We would be grateful for any well-documented information that readers can supply. Please send such material to the last-named.

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