

significant number of its members, and that the commission's report should be made public in advance of a decision by the Security Council. To some degree, the sovereignty of member-states would be undermined by such devices, but as the world knows by now, the days of untrammelled sovereignty are coming to an end. □

## Replication defined

**Those who test others' ideas by repeating their experiments are not required to do so slavishly.**

THE letters from Dr Jacques Benveniste and others and from Fred A. C. Wiegant appearing (much delayed) on page 322 have been stimulated by the publication last year (Hirst *et al.* *Nature* **366**, 525–527; 1993) of an account of a test of Benveniste *et al.*'s earlier report of the biological reactivity of even indefinitely diluted solutions of anti-IgE. They raise an interesting point about the role of replication in science — one on which confusion can arise, or can be made to arise. Hirst *et al.* set out to test Benveniste *et al.*'s conclusions by repeating his measurements, but Benveniste now says that, because the repetition was not exact, their negative result does not prove his conclusion wrong. Technically, of course, he is correct. It is, indeed, possible that one of the variations from Benveniste's procedure in that followed by Hirst *et al.* — Benveniste claims to have identified fifteen — accounts for the difference between the two groups's conclusions. Then, so what?

Dilemmas of this kind are not as infrequent as may be thought. It is not so long ago (just under a decade) since J. J. Simpson published data suggesting that there is a neutrino with a mass of 17 keV, for example. The implications were startling for cosmologists. But the notion is now dead, because exact replications of the original measurements and independent tests of the same conclusion, often more sensitive, failed to confirm it (see *Nature* **366**, 29–32; 1993). The same has happened with the hunt for the so-called 'fifth force', first suggested (by experiment) as a force of intermediate range between all massive objects (see *Nature* **356**, 207–32; 1993). The sheer variety of the measurements by which confirmation was sought lent conviction to the conclusion that there is no fifth force, but has nonetheless left gravimetry much richer.

It is unfortunate, and a little sad, that Benveniste and his colleagues do not appreciate the parallel. Correctly, Hirst *et al.* did not conclude in their article that Benveniste was mistaken, but merely that their reasonable test of his conclusion failed to support it. It is for readers of this arcane branch of the literature to make up their own minds what weight to give to the handful of published investigations of the memory of water. For Benveniste, apparently still convinced that water does have a memory, the proper course would be to regard the differences between his procedure and that of Hirst *et al.* as pointers to the attributes of his own procedure that may be responsible for the results on which he has been brooding these past six years. □

## Waldegrave's departure

**The transfer to another ministry of Britain's first science minister for three decades is a loss.**

THE history of science ministers in Britain is sparse, to say the best of it. There was a brief spell in 1962–63 when Lord Hailsham, a combative Conservative party warhorse, held the post on a part-time basis until it disappeared beneath the hoopla of the arrival of a Labour government in 1964. A brand-new Ministry of Technology was created to give bite to the government's policy of regeneration through "white-hot technology", science was bundled in with education, and the lack of a minister with even part-time responsibility in the field became apparent only gradually. Then, two years ago, the present British government recreated the post, at least in part because of the urging of the House of Lords that something should be done.

British science has been lucky in the first incumbent of the new post, Mr William Waldegrave. Whatever disagreements there may have been and may persist, his spell at the newly created Office of Science and Technology has been intellectually distinguished and robust. He has listened to what people in the research community have been saying, he has engaged in argument about controversial policies and he has been vigorous in putting in place the organization his policies have made necessary. Disagreements about them apart, it can only have been good for science in Britain to have been dealt with intelligently, for just under two years, and made to seem important. Indeed, the radical reorganization of the research councils he has carried through might not have been possible if he had been personally less engaged.

But now, as is the habit of British governments, Waldegrave has been snatched away to become the minister of agriculture (see *Nature* **370**, 237; 1994). His new brief may include a few scraps of science, bovine spongiform encephalitis (BSE) among other things, but the demanding parts of it will have to do with the European Union's own protection racket, known as the Common Agricultural Policy, which the British government wishes to dismantle (or 'reform'), against the wishes of most of its partners. It is a great pity that one with a proven flair for making links with the research community should have to spend the next few years of his political life arguing the toss with farming lobbies on such arcane matters as the value of the 'green pound' (which is the accounting unit used in converting British agricultural prices into European units).

Waldegrave's successor, Mr David Hunt, is also personable and intelligent. The worry is that his brief (within the British Cabinet Office) includes an ill-defined responsibility for the government's political success. It is as if he is meant to play for Mr John Major, the prime minister, the role Mr James Baker took on for President George Bush. It is unlikely that science will be able to command as much of his attention as it did of Waldegrave's. That will be especially unfortunate when the inevitable teething troubles (and perhaps worse) of a new organization will have to be endured. □