

## Means to public understanding

*The British Association is hitching its wagon to the campaign for public understanding of science. It should be cautious in its manner but more daring in its advocacy of causes.*

NEXT week's meeting of the British Association for the Advancement of Science, generally known in Britain as "the BA", promises well — as these occasions go. The location (Oxford) is attractive, there is a greater awareness among the British public that the future is linked with what goes on in laboratories, although just how is far from clear, while active researchers, conspicuous absentees at annual meetings of this kind, are now in Britain half-convinced that their present difficulties stem from past neglect of public representation. It is also likely that this year's president (Sir Walter Bodmer), from the generation of researchers still untarnished by the consequences of past mistakes, can be counted on for a rousing speech.

That is the good news. The other side of the coin is that it is still not clear how the BA sees its role in contemporary society. That is no great shame. Most similarly named organizations scattered about the English-speaking world are similarly at a loss. The Australia and New Zealand association (ANZAAS) seems to be an annual disappointment. The annual Indian Science Congress generates enthusiasm, but fitfully. Only the US association (AAAS), anchored firmly in a successful and admirable publishing business, has been able to perform a wider and continuing function, in matters as different as the training of scientists as journalists, the freedom of scientists in repressive regimes and the annual scrutiny of the federal budget. What has gone wrong? And why?

The history is familiar, but worth repeating. The BA may seem a nineteenth-century creation (midway between the reform bills of 1830 and 1832 that enfranchised Britain), but in reality its roots lie in the late eighteenth century and the then fashionable doctrine of Improvement by Taking Thought. The Josiah Wedgwoods and Joseph Priestleys of the time were a novel breed.

Their enterprise may have helped to make British agriculture efficient and to found the industrial revolution, but their intellectual curiosity helped to provoke subversive questions in many people's minds, making Britain a more interesting place. At the BA's foundation, Faraday had only just begun on his great life's work, Britain was rich in ingenious engineers but science was entirely unprofessionalized. For the remainder of the nineteenth century and a little beyond it, the annual meetings of the BA were occasions at which Britain's growing army of interested souls could satisfy their intellectual curiosity. Now they are occasions when some of those who know what happens in laboratories instruct a few of those who do not.

One of the BA's objectives now is to be a part of a national effort, in Britain, to give people in general more awareness of what science is and what it can accomplish. The issue has been in the air for the past two years, since the Royal Society published the report of a study (of which Bodmer was the chairman) arguing the case for a wider public understanding of science. The virtues of this cause are plain. The world does need to understand, and to participate in, the technical decisions made on its behalf. More public understanding would mean more rational decisions, perhaps even less irrationality, and so on. The case as put rests only marginally on the belief that public understanding would beget bigger budgets for research, which is only proper.

To say that there are snags is not to ask that the BA (or any

other association) should abandon these causes, but is merely to be cautious. The problem, in contemporary Britain, is not so much ignorance of science but disaffection from it. Gone is the excitement, a century ago, at the discovery that evolution could illuminate people's understanding of their place in the scheme of things, half a century ago that the Universe is what it is and, more recently, at the possibility that electricity generated by nuclear fusion would be so cheap that the costs of metering it would be an encumbrance. Developments such as these served not merely to fire the general imagination and to attract able young men and women to an honourable profession; they also augmented the general standing of intellectual life. The fact that the last of these three promises proved false is only part of the reason for present disaffections: it is more relevant that the once clear prospects offered by discovery have been muddied in the proper wish to make more deliberate use of it.

One pitfall for the campaign for the public understanding of science is that it is a means by which people in white coats risk seeming to patronize other grown-ups. So far, much attention has been paid to fuller and more expert explanation. But understanding as such is not the central issue. It matters more that the intellectual attention and imagination of adults, young and old, are not being sufficiently engaged by what at present passes for understanding. One symptom of this disengagement is the decline of the numbers of those making careers in science, concealing a no doubt disproportionate decline in the numbers of those of high quality who are thus inclined. That trends of the same kind are mirrored in comparable countries in Western Europe and North America but also in the Soviet Union does not rid the British campaign (now being echoed by ANZAAS and AAAS) of the obligation of trying to make science intellectually interesting, as in the eighteenth century. Making it clear will not suffice.

The other obvious pitfall is the assumption that the process of discovery is value-free. Nothing could be further from the truth. The process is sustained by intellectual curiosity, the belief that all discoveries are worthwhile and the conviction that their practical applications, if properly managed, are beneficial. The danger is that, after two decades of seemingly endless argument (which will continue) about the utility or otherwise of particular discoveries, the world is full of potential helpers in the campaign for understanding who behave as if discovery is principally a social nuisance.

That is why the BA should seek to awaken public interest as a means of engendering public understanding, which is most effectively done by taking public positions on matters important to research, the engine of discovery. While the BA has commendably, in recent years, offered its annual meeting as a forum for those wishing to discuss contentious (but not over-contentious) issues, it does not itself advocate much of importance.

British research has shamefully declined without protest from the BA, which has no opinion on the prospect of restriction on embryo research or even on the causes of the transition from the Cretaceous to the Tertiary. The robust figures populating the age of improvement behaved differently. Times have changed, but not that much. □