Education and training of dogs and their owners could also reduce health hazards. In parts of the United States it is mandatory for owners to clear up their own dog's excreta ("pooper-scoopers" are supplied and fines imposed if not used). The British government has recently given approval to bylaws requiring dog owners to clear up faeces left by their pets on pavements, parks, and recreation grounds. A 12 month pilot scheme will be tried in four areas starting in September 1985.[8] Responsibility for a dog requires an owner to be mature (perhaps over 16), caring, and willing to ensure that the dog is adequately trained, not unhygienic, and not hazardous to the public's health.

The harm that dogs cause to both health and safety causes appreciable costs to the nation.[2-4 9 10] Some of this could be prevented or ameliorated if the government was prepared to insist on more responsible attitudes by dog owners. The ever present risk of rabies crossing the English Channel is a further cogent reason for seriously considering better control of dogs.

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Failure of communication

The latest call for the public to become better informed about science comes from the Royal Society, whose report by a committee chaired by Dr Walter Bodmer was published last week.[1] Sadly, however, the report is likely to make as little impact as its predecessors; the time and money would have been better spent in finding a new approach to an old but vital problem. For the continuing low status given to science and technology by our society is surely one of the main factors in Britain's economic decline.

The report emphasises the universal importance of understanding science, its accomplishments, and its limitations. Research should be carried out into the public's understanding of science and technology, how to improve this, and how to monitor attitudes to science. All schoolchildren should have a broadly based science education, special attempts should be made to attract good and dedicated teachers, and new approaches to continuing and further science education should be developed. The attitudes of the mass media need to be changed, with more science in general television programmes and newspaper articles and a more positive attitude by newspaper editors. Industry, learned societies, and other scientific institutions should jointly promote activities aimed at improving public understanding of science.

Thus summarised, the report sounds dull—but the reality is much, much duller. It ignores its own "most direct and urgent message": learn to communicate with the public, be willing to do so, and consider it your duty to do so. Such failure of communication is not due to the unattractive format alone, though the excessive use of bold type for emphasis and a line that is too wide to be read comfortably break the elementary rules: rather it is the stilted structure, with its apparatus of numbered paragraphs and annexes, and the continual use of pompous language, clichés, and platitudes that would make the uncommitted reader give up early on.

> Government needs to appreciate, for example, the interconnections between basic, strategic and applied research, the relative timescales and uncertainties of these three phases, special factors such as increasing instrumental sophistication that affect the cost of research, and the dynamics of the system for financing research in the higher education sector.
>
> A third corollary is that this view of scientists as purely logical and unémotional not only detracts from a balanced view of the scientist as an ordinary person but may also preclude recognition of the imaginative and humanistic aspects of the scientific endeavour.
>
> The progress of scientific understanding, the changes in the scientific and technological basis of industry and the increasing involvement of the public in national decision making mean that education given early in life, while providing the basis for an individual's future ability to acquire scientific knowledge, cannot itself suffice for a lifetime.

If prose of this banality is typical of most committee reports, and in my experience it is, then no wonder that the Bodmer committee's approach to newspaper editors to give evidence evoked no response (with one exception, *The Guardian*)—an aspect which crucially the report fails to explore.

Citing C P Snow's "two cultures," an editorial in *Nature* (which views the report as valuable and liberal) emphasises that the failure of academic scientists to communicate is thoroughly unwelcome.[2] In justifying my harsh comments I would use another of Snow's phrases: "with characters big enough one ought not to be polite."[3] For not only are the characters here big enough, but the problem is too important for yet another document to be nodded over by committee members who have neither read it nor will do anything to implement its recommendations. In particular, in Britain medicine has been ill served by the press, one reason why the *BMJ* introduced its "Medicine and the Media" column to monitor its comments.

The research that needs doing is how to make laymen, members of parliament, and journalists realise that their understanding of science is inadequate and that it must be improved. Repeated recommendations in formal committee reports will not achieve this: individually many members of the Bodmer committee are expert communicators (indeed, at least two of them write superbly); collectively they have produced something as palatable as a lettuce left next to the boiler over a weekend. The priority is to discover why television handles science better than the newspapers, why news editors continue to ignore science (except in terms of "new cancer virus breakthrough"), and how attitudes can be changed.

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