

Science and Society

A debate on the House of Lords Select
Committee on Science and Technology report

Held in the rooms of the Royal Society on 28 June 2000

Sponsored by Pfizer

In the Chair:

Mr David Moorhouse, Deputy Chairman, FST

Speakers:

The Rt. Hon. The Lord Jenkin of Roding, Chairman
of the Sub- Committee which conducted the inquiry and
Chairman of the FST

Professor Nick Pidgeon, Centre for Environmental
Risk, School of Environmental Sciences,
University of East Anglia

Professor Lewis Wolpert CBE FRS, Dept of Anatomy
& Development Biology, Royal Free & University College
Medical School, University College London

LORD JENKIN set out the background to the House of Lords Inquiry - the GMO debate, BSE, Brent Spar and the OST Survey of Biotechnology, which showed a public mistrust, even hostility, to scientists and scientific regulators. There was a paradoxical relation - not only in the UK - between public fascination with science and lack of trust in scientists. The conclusion was that there was a crisis in the relationship between the public and science; a feeling that science was advancing too fast for public acceptance; and anxiety among scientists about public perception of their role and work. The Report made 26 specific recommendations, but there were five key messages :- (1) a crisis existed which could lead to scientists working abroad, to the detriment of the economy; scientists, politicians and journalists all lacked public trust; (2) scientists were not alone in being mistrusted, but a unique feature about science made public understanding more difficult; while science (the pursuit of knowledge) was amoral, its application could, and did, raise ethical issues. Scientists appeared to ignore this feature; when they treated scientific issues solely as if they were questions of " science", they failed to address public concern. (3) Communication between scientists and the public was crucial, but it must be dialogue not just one way. The aim was not just " increasing public understanding of science" but also understanding public concern and values. COPUS should be renamed. The dialogue needed to be led - there was a role for Government, the OST and learned societies. (4) the cult of secrecy must end. Greater transparency was essential for regulatory decisions, as in the US. (5) the media must be involved and their priorities understood. The House of

Commons proposal for a "scientific code" was not the answer. There was no substitute for the hurly-burly of free debate.

PROFESSOR PIDGEON welcomed the report and agreed that scientists must engage more with the public. A central problem was uncertainty about risk. Although, in the developed world, lives were longer and better, people seemed increasingly concerned about risk. However, their behaviour patterns often took little account of risk analysis - e.g. sunburn and cars. The 1992 Royal Society report indicated the wider and different meanings that people might assign to risk; the qualitative factors involved (e.g. whether the risk was voluntary, whether the results might be catastrophic, and cultural affinities). Life style could be more important than avoiding risk. Risks from scientific advance were more likely to be accepted if accompanied by open dialogue and, most important, trust in the institutional control. Incidents such as Flixborough and BSE showed that public concern was not with science, but with human behaviour, leading to "blind spots" and institutional failure of foresight. There were limits to risk assessment; public perceptions, and the values behind them, must be understood, and the biases of experts recognised. But public perceptions themselves may be biased, and reflect only media hype and noise. They must be managed. Key issues were understanding the complexities and politics of trust; recognising that trust depends on the independence of regulators and analysts (which implies genuine institutional reform); and examining the consequences of stakeholder involvement and the interface with existing decision makers.

PROFESSOR WOLPERT agreed with the general thrust of the report, but found difficulty with some of the underlying assumptions and many of the individual recommendations. The Report did not make clear that science was unnatural, in that its process led to results often contrary to common sense; that there was a fundamental distinction between science (understanding the world) and technology (applying understanding); that science was not homogenous; and that much science (and even more technology) took place in industry outside government control. Moreover, there had been crises in understanding between scientists and the public since biblical times; there was nothing new in the present. Suggestions about a dialogue were woefully unfocussed - dialogue with whom about what? A dialogue between a scientist and the public about his science was pointless, as the public could have nothing of interest to tell him. What good would a dialogue about GMOs have done? There would still have been "Frankenstein food" headlines. The only way that issue could have been turned would have been to demonstrate that there was actual benefit for the public from GM foods. That was a commercial issue, not a scientific problem. Don't pander to the public by using euphemisms for terms they don't like (e.g. therapeutic cloning) and don't pretend that the popularisation and explanation of science was of the same value as real science. Such work, in any case, was only

worthwhile if properly evaluated and shown to have made a difference. The priorities, in his view, were to provide easy access to knowledge; to encourage direct contact between individual scientists and members of the public; and to improve the image of the scientists among the young.

A principal theme in the following discussion was whether the line drawn by Professor Wolpert between science and technology was hard and firm, and whether the public mistrust was confined to the application of science, and its institutional regulation, or went deeper. While there was general agreement that there was little, if any, place for dialogue in the process of genuine scientific discovery, there was some doubt whether such work could be isolated from public interest and concern; ethical issues - e.g. work on human tissues - could arise. Concern about, or enthusiasm for, possible applications of "pure" research could also affect funding. For example, the Foresight emphasis on research leading to development for market entry (where ethical issues might well arise) could taint the research itself. There was, therefore, an argument for having on Research Councils some members who would have in mind wider issues than the strictly scientific. The crucial area where debate, dialogue and consultation must take place was, however, with application of scientific discovery. How successful this could be was questionable. There were some examples of such dialogue leading to consensus, where they were based on a full understanding of the local culture; but the institutions and processes, which fostered these successes, were not easily transferred to different cultures. In the case of a local and specific controversial proposal (such as the Hampshire incinerator) sustained public consultation and debate might change opinion and overcome irrational prejudice, but it was much more doubtful if they could affect opinion on wider and diffuse issues such as GMOs and irradiated food. Consultation meant active participation in discussion, and must not be confused with market research.

Further themes were the roles of politicians, journalists and commercial interests. All were mistrusted, but so what? They could not, and should not, be ignored. Politicians, as taxpayers' representatives, authorised the public expenditure from which salaries and research grants flowed. Like it or not, researchers were accountable to them and must take account of their interests and priorities, which, unsurprisingly, would align with those of the voting public. To suggest that politicians should give "leadership" on scientific issues where there might be conflict with their political interests was unrealistic. Neither was there much point in railing against media hype and journalistic opportunism and ignorance. Scientific correspondents often deserved praise, but their contributions neither sold papers nor galvanised TV ratings. The commercial drive came from news desks that wanted "campaigns" and scare stories. "GM foods safe, says scientist" would not rate a mention. But, even so, much could be done to alert researchers to possible media

reaction; to caution them to restrict comment to scientifically unassailable points; and to warn them against venturing into fields where their views were of no more value than those of others. The problems of "rogue scientists" and "false balance" could never be eliminated, only mitigated by prolonged discussions with journalists, based on an understanding of their priorities.

Was, therefore, the idea of "scientific leadership" a chimera? Political leadership was doubtful, if not dangerous; reason led media debate improbable. The role, if any, had to fall back to the Royal Society, the learned societies and eminent individuals. A continued and determined effort by them could, in time, improve the position, but was unlikely to provide a step change.

Finally, however much it seemed unfair, and against the best interests of science, for commercial interests to fund and exploit scientific research and development in search of profit, little good would come from hoping things would change. It might well be true that insufficiently considered commercialisation of GM foods had led to the GM furore, such activity in a global and competitive environment was inevitable. The lessons for such companies were that markets and interests (as the discussion on consultation had suggested) were local, and arguments should be addressed to local benefits, rather than vague global amelioration.

Sir Geoffrey Chipperfield

The discussions were held under the rule that nobody contributing to them may be quoted by name after the event. None of the opinions stated are those of the Foundation for Science and Technology, since, by its constitution, the Foundation is unable to have an opinion.

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