

DINNER/DISCUSSION SUMMARY

Risk Perception and Public Policy

Held at The Royal Society on Tuesday 12th October, 2004

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In the Chair: **The Rt Hon the Lord Jenkin of Roding**
Chairman, The Foundation for Science and Technology

Speakers: **Sir John Krebs FRS**
Chairman, Food Standards Agency
Professor Ian Diamond AcSS
Chief Executive, Economic and Social Research Council
Professor Nick Pidgeon
Centre for Environmental Risk and Director and Professor of Environmental
Sciences, UEA

SIR JOHN KREBS said that when the Food Standards Agency (FSA) was established there was suspicion about the way the Government handled food safety. The paradigm had been to assert that food was 'absolutely safe' and that 'scientists knew', and to 'decide, announce, defend'. The FSA had changed that: now, the messages were 'life is not risk-free' and 'although we turn to science, there is often no clear-cut answer'. The FSA involved all stakeholders early, and was open about the fact that the policy they came up with was essentially a judgement. The benefits of this new approach included building trust in the FSA, and arriving at decisions which were better and less likely to be challenged.

Science (assessed by independent committees) was the bedrock of risk assessment. But risks cannot always be quantified. Furthermore, differing degrees of public acceptability for different types of risk meant that there could be no universal risk thresholds. People's perception of risk was sometimes at odds with the evidence. And scientists did not always agree – e.g. on the risks from dioxins, the US Environmental Protection Agency assumed a dose-response curve which was linear all the way down to zero, whereas the US Food and Drug Administration, FSA, World Health Organisation and others, backed by scientific evidence and theory, assumed a zero-response threshold dose.

The FSA had three methods of managing risk – regulation, encouraging voluntary action by industry, and providing information. Under one regulation, the UK barred cattle over 30 months old from en-

tering the food chain. Most other countries instead tested animals for BSE before allowing them into the food chain. A robust risk assessment had concluded that if the UK switched the latter policy, there would be either 0 or 1 extra death in 60 years. The cost of saving one life by slaughtering animals over 30 months was thus about £2 billion, hugely more than the values normally used in public policy. By comparison, investment in reducing salt intake would bring great returns. The FSA was encouraging food manufacturers and caterers to use less salt; providing public information; and seeking better labelling, thus allowing consumer choice.

PROFESSOR IAN DIAMOND said that political decision-making is a social scientific process which does not fit naturally with the scientific model. The linear model of identifying the problem, sending in researchers, and announcing the answer was inadequate. We needed interaction which ensured that civil society, the public sector and academia worked together. The research had to be owned by all three sectors. It was important to identify the decision makers and get them involved right from the start, even for blue sky research. The ESRC was working with the other research councils to this end. One of the strengths of the UK's Foresight programme was that there was a ministerial sponsor for each element.

Policy makers needed to understand the scientific process. They had to be able to judge the quality of research.

Although it was vital to communicate well the results of research to all stakeholders, not all researchers could or should do this. It was the role of the research councils to ensure that plain English summaries were produced.

Scientists needed to move from telling the public to engaging them, and to be more honest about what they did not know. The research councils had a huge role in acting as a conduit between the public and science.

PROFESSOR NICK PIDGEON said that up to the 1990s, risk communication had developed along the following lines: get the numbers right, announce them, explain what they mean, show people they accepted similar risks, tell people the benefits and so show that the overall deal was good for them, treat people nicely, and make people partners – and, if all else failed, all of the above! Now, the vogue was engagement and dialogue. This allowed public values such as equity to be better incorporated in decisions, improved the quality of decisions, resolved conflicts, and established trust and legitimacy. However, there were some questions about engaging ‘the public’. Not all expressions of public attitudes carried actionable values, e.g. on hanging. The ‘public’ contained highly differentiated groups, and was not the same as ‘stakeholders’.

Some of these points were revealed by the ‘GM Nation’ exercise, which had seemed to produce a resounding vote against GM crops. But a carefully constructed survey had revealed a more complex picture – the main group did have high concerns about GM technology, but also saw significant potential benefits. GM Nation had overestimated the strength of the opposition, because the respondents were self-selecting. However, even if the respondents were not representative of the general public, it was important for policy makers to understand their mobilisation.

Policy makers had to take account of three qualitatively different evidence streams: economics, science, and public debate. There could be dialogue about potentially controversial issues before much R&D had been done, e.g. work by the Royal Society and the Royal Academy of Engineering on attitudes to nanotechnology. This had produced a balanced result, with enthusiasm for the potential benefits and concern about long-term uncertainties.

DISCUSSION

Adverse findings before research is finalised should be announced, once peer-reviewed. People are not irrational about risk: they should be told of emerging findings, and what further research is being done to sort out the problem. If the press are actively and honestly engaged they normally do not create scare stories, though they are influential.

People need good information with sources of evidence and indications of whether pieces of work are rogue or fit into a more general pattern. Facts need to be contextualised, and scientists should be open about uncertainty. However, one can give a clear and balanced exposition of the science and be both widely praised for it and condemned by NGOs! Social scientists can contribute at both the risk assessment and risk management stages. Engagement and communication have to happen all the way through. Even when there remain uncertainties, one can still give advice.

How can one avoid dialogue being captured by special interest groups? If one is trying to understand the various opinions of the different groups comprising the public, the answer is a combination of qualitative and quantitative market research, though even then there may be a gap between what people say and how they subsequently behave. Normally only activists turn up to public meetings, but it is important to engage such people. In a well-constructed group, the tensions between the various interests allow the host to act just as ring holder. Stakeholder groups may express outrage (‘social amplification of risk’) after an event, and get media attention, but the decision makers need to recognise that such views may not be those of the general public.

How does one deal with well-financed groups who seem not to believe in science or scholarship, without just appeasing them? At least the key issues can be identified, so that the scientific community can look into them to find the evidence. A participant said that one must avoid a model where science agrees what are the right and wrong answers – cf. how different connoisseurs may have different views about different restaurants.

Although turbulence is one of the most difficult of scientific problems, its difficulty pales beside the problems of dealing with the turbulence of people’s conflicting emotions and behaviour!

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