

# Sciencewise Expert Resource Centre

*An interview with Lord Winston by Karen Gooch*

Leading scientist and broadcaster Lord Robert Winston has recently taken on yet another role – that of ‘ambassador’ and ‘champion’ of the recently launched Sciencewise-ERC.

The aim of the Sciencewise Expert Resource Centre for Public Dialogue in Science and Innovation, funded by DIUS, is to help policy makers engage and talk with the public about challenging and often controversial science and technology issues.

Lord Winston, who was recently appointed the first Professor of Science and Society at Imperial College, will act as the centre’s figurehead to get the message across to politicians, the public and the scientific community.

“We have to recognise that the science people like me do is not owned by us, it is owned by society and therefore we have a duty to demonstrate our responsibilities as good citizens and ensure we listen and respond to public concerns about the technology we are proposing” Lord Winston said in an interview for Science in Parliament.

“As a champion, my role is not to be part of their executive (Sciencewise-ERC) or execute policy, I think that is for Sciencewise. My role is to ensure that when it is engaged on something it gets an appropriate profile.

“We want to have more involvement with the public and people who have little influence in our society, for example people from ethnic backgrounds and people who have not had a higher education, who should have a say in what we are on about.

“Sciencewise is a valuable resource for developing two-way conversation with the public, and, most importantly, will help to build greater confidence and trust between Government, scientists and society as a whole.”

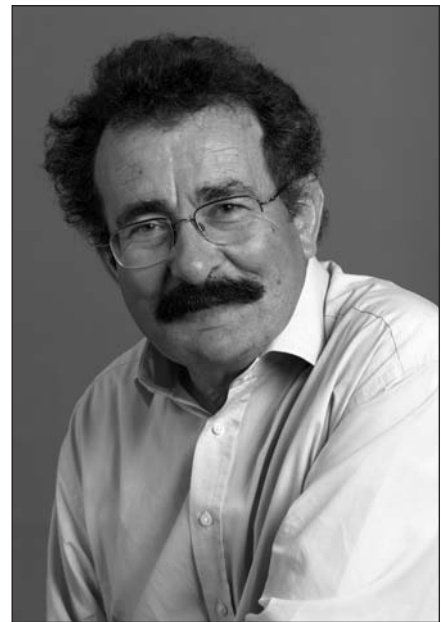
Lord Winston is especially well placed, as he acknowledges, to spearhead the work of Sciencewise-ERC. His high profile encompasses Parliament, where he sits on the Labour benches in the House of Lords, the academic world – as Emeritus Professor of Fertility Studies at Imperial College he is currently leading a research programme in the Institute of Reproductive and Developmental Biology on improvements in transgenic technology in animal models. As a broadcaster, he is able to spread the message to a wide audience about new developments in science and technology.

This autumn his new television series ‘SuperDoctors’, examined the problems raised by cutting edge technologies and the implications on people’s daily lives. The three-part series on BBC 1 followed other highly successful television programmes by Lord Winston, including *Superhuman*, *Child of our Time*, *Human Instinct*, and the BAFTA award-winner *The Human Body*.

This background gives Lord Winston a unique insight into communicating with all strands and sections of society, and he is especially enthusiastic about the role public dialogue can play in formulating policy.

Funding public dialogue programmes to enable policy makers to learn more about public perceptions is an important focus of the Sciencewise-ERC, which also offers a virtual knowledge hub and offline support services, including ‘Drop in for Dialogue’ sessions throughout government.

“Dialogue sessions are much better than referenda, as they allow you to pick up on nuances and also enable far more detailed scientific explanation than is possible in, for example, public opinion poll questions” Lord Winston explains.



The Embryology Bill, currently going through Parliament, is an example of how policy can be formulated and even significantly altered, after public dialogue input. The Human Fertilisation and Embryology Authority took on board the public views expressed at Public Dialogue sessions, funded by Sciencewise-ERC, when deciding in principle to licence hybrid and chimera embryo research last September.

“The feedback persuaded HFEA to be a lot more permissive with their interpretation and advice as to how the bill would go. Whether the bill would have been presented in that format is difficult to know, of course, but certainly dialogue seems to have had a considerable impact in alerting the Government not to be too rigid in the new legislation.”

On the day I met Lord Winston, who is internationally acclaimed for his long and highly successful research career in reproductive medicine, the IVF pioneer was particularly exercised about abortion amendments to the Embryology Bill, which he condemned as “quite cynical and I think rather disreputable”.

He pointed out that the anti-abortion campaigners should be aiming their fire at primary legislation on abortion, not the Embryology Bill.

In the long term, Lord Winston is confident that negative headlines about scientific research, in particular

that on hybrid embryos which panders to fears about 'Frankenstein' creations, is little more than 'hysteria' on the part of some sections of the media.

"The British people are not stupid – unfortunately our media leaders would think that they are sometimes.

"Frankenstein's monster was something alive, and there is no possible interpretation you can argue that is being done in this case" he asserts, referring to hybrid embryo research. "It is just not helpful. Dialogue needs truthful evidence and information which is verifiable."

On a more positive note, he cites the vast amounts of responsible

newspaper coverage of the issue, ranging from features to articles in science columns.

Looking back, Lord Winston pinpoints the moment he believes science attracted criticism and became something to be suspicious of: "The watershed in history of all this for me was the development of nuclear weapons. In the 1930s the then government decided what we were doing with the nuclear programme was so powerful it had to be kept secret – even from some members of the Cabinet.

"A lot of scientists showed their misgivings, and a lot wanted to come

off it (the programme). Until that time, it was assumed that science was good. In the last two to three decades there was then the notion, articulated by C P Snow, that of the two cultures, science was hard edged and threatening, while the arts were touchy feely and cuddly."

Lord Winston wants to dispel that viewpoint: "In my view science and the arts are the same thing, expressions of the same part of human aspiration generally."

It is a message he aims to share with as wide an audience as he possibly can.

## BOOK REVIEW

# An Appeal to Reason: A Cool Look at Global Warming

By Nigel Lawson

*Duckworth Overlook £9.99, pp149*

After his tremendous career on the Financial Times, as Secretary of State for Energy and as Chancellor of the Exchequer, Nigel Lawson is now bringing his perspectives of journalism, economics, energy policy and politics to the issues of climate change. His book is a strongly argued, but unbalanced attack both on scientific research into climate change and on the plans of governments to moderate global warming by reducing carbon emissions. The heart of his case is a disbelief in the scientific predictions about the natural and human consequences associated with the rise in atmospheric temperatures over this century of about 4°C. Nor is he convinced about the policies proposed to deal with these effects.

These policies as well as the scientific, economic and administrative procedures being used are broadly similar to those that environmental scientists, campaigners and governments developed over the past 50 years to deal with urban smog, acid rain, lead in petrol, asbestos, stratospheric ozone depletion and water pollution, etc. With the progress that has been made towards these environmental objectives the international community is confident that they will be able to deal with the more complex problems of long term climate change caused by human activities.

The book seriously understates these problems, based on a selective review of scientific observations of the natural world. These changes are more substantial and have been occurring more rapidly than any others since about 10,000 years ago when huge ice sheets covering Britain were melting along the Thames. The largest temperature rise of 3°C in the last 50 years has been on the Antarctic peninsula, where recently large ice sheets the size of Wales

and at least 20,000 years old broke away and initiated further slippage – 'the cork popping out of the bottle'.

Economists are more gloomy about forecasting than meteorologists – as I have learnt from Professor Lord Desai. So it is not surprising that Lord Lawson doubts whether it is possible to predict how climatic changes will develop and whether there is anything we can usefully do to arrest them. The evidence so far about predictions and about whether political responses are possible does not support this pessimism.

Arrhenius' nineteenth century predictions have been confirmed by the steady rise of CO<sub>2</sub> concentration (which will nearly double the pre-industrial levels in the next 20-30 years), and by satellite measurements of the reduced out-going radiation and lower temperatures in the stratosphere.

However Lord Lawson is quite correct to point out the difficulty in predicting the rise in temperature in the lower atmosphere and near the surface, though Arrhenius' estimate of 5°C may be only a slight overestimate. But as an economist living in a glass house he should not throw stones at the methodology of incremental improvements in modelling, which he unjustifiably ridicules by appealing to the philosopher Sir Karl Popper.

This approach (explained by Popper's student Lakatos) is proving successful in the continual reduction of the uncertainty of climate science, as John Mitchell successfully showed in the 1990s when the effects of industrial aerosols were introduced into the Hadley Centre climate model.