

## **BA and ESRC Science in Society seminars 2006**

### **How is scientific knowledge made, communicated and understood?**

The fifth seminar in the Science in Society series asked how scientific knowledge is made, communicated and understood. The speakers were Laura Potts from YSJ University College in York and Charmaine Griffiths, Press and PR Manager for the British Heart Foundation. Laura Potts began the seminar by talking about the research she undertook which aimed to create equal participation in the debate about breast cancer. The project focussed on building bridges between the different communities concerned. There were four main components which looked at: scientific expertise; lay or citizen expertise; policy focus (looking at how the science gets translated into actual policies) and ideologies.

The aims of the project were to contribute to the legitimization of citizen expertise in relation to the governance of risk; to establish collaborative public engagement of a range of interest groups and to mediate knowledge claims about environmental risk, and lastly to discuss the environmental risks of breast cancer using language that everyone can understand. The project conducted interviews and focus groups, held local hearings in different parts of the country and among different groups, and held mapping sessions where people were asked to mark on maps where they believed the environmental risks were, such as polluted rivers. A national hearing in parliament was also held.

The project encountered many things that either helped or hindered its progress and it was found that it was much harder to create bridges to bring communities

of interest together than they had thought it would be. The cancer charities themselves were often unwilling to be involved. On the positive side, MPs and the All-party Parliamentary Group for breast cancer worked well with the research project. A major hindrance to the project was that people were often prepared to say different things in public and private.

The project set about to find out why there is an increasing incidence of breast cancer, and to address public concern that the reasons for this remain unexplained. An individual's search for answers may be personal, political or scientific, or cross over these three areas. The project found that cancer professionals tended to distance themselves from the search for an explanation, not seeing themselves as qualified to look for the reasons behind the problem, but just to treat the symptoms.

Two major problems which the project encountered were that there is not one single cause of breast cancer and that data is interpreted differently by different people. It is very difficult for the results of science to be translated into policy. While the causes of breast cancer are not agreed, this means the adoption of precautionary public health actions remains impossible. Laura showed that the NHS cancer plan looked the same 20 years ago as it does today and has not helped to reduce the incidence of breast cancer.

In conclusion, the project found that it was very hard to establish common ground or language between interested communities to try and reduce the risk of breast cancer.

Charmaine Griffiths, the Press and PR Manger for the British Heart Foundation (BHF), spoke about how the foundation communicates science and helps the public to understand the issues surrounding heart disease. The BHF is committed to eradicating premature heart disease. They fund a lot of research into heart

disease and also work to raise awareness, providing the public with information based on scientific fact.

Media campaigns are one important way in which the BHF gets information across to the public. One of their most memorable campaigns was to raise the awareness of the link between smoking and heart disease. Their press desk receives around 300 calls a month from major media companies, and they produce accurate and accessible literature.

Charmaine raised the important issue of how the language used to communicate these issues is created and suggested that it would be useful for the BHF to look at academic research to help them to do this.

A representative from the Natural History Museum asked whether scientific doubt is reflected in the information given to the public. Although scientists don't always agree, Charmaine said that by choosing appropriate language it is possible to produce information that is both accurate and up to date.

Organisations are often uncomfortable about communicating scientific doubt to the public. It raises the issue of whether people want a 'yes or no' answer to scientific questions. This greatly depends on the subject area. With issues such as heart disease, the public do generally need a definite answer but in other areas the public often show more understanding.

A PhD student in the audience asked how the public forums on Laura Potts' research project were carried out. Laura explained that they used a range of methodologies and tools. The main method used was mapping, that is getting participants to look at maps of their environment 20 years ago and mark on environmental aspects which they believed may have contributed to their cancer. Laura emphasises that on a research project, choosing the right tool is crucial to bring people to the same level.

An audience member from a healthcare public relations company asked how the BHF interprets the science to make sure the information is repeated accurately in the media. The BHF has a medical expert team which the press and PR department liaise with in order to decipher the information given. They also talk to heart patients to get their perspective on how they would want that information to be presented. The BHF, like most PR departments, evaluates all press and broadcast coverage to make sure that the content was correctly stated.

A member of the audience raised the issue of the smoking ban which has just successfully gone through parliament and pointed out that the science behind the ban was absolutely solid, in comparison to issues such as breast cancer where the science is not united. Laura also pointed out that support for the total ban of smoking came from across the public health sector so was very broad in its support. Breast cancer is not as clear an issue and so the support is less broad.

A member of the Royal Society asked how public dialogue should feed into actual policy. Laura Potts stated that the use of public dialogue differs for different issues. Interestingly, the Stewart inquiry into the placement of mobile phone masts took public opinion into account when drawing its conclusions.

However, sometimes it is difficult to get the public to attend meetings run by groups such as the GM Nation project, as they believe these lobby groups are controlled by the government. If people could be sure that their participation would actually lead to a policy output that they agreed with then this would help to create trust between the member of the public and the government.

A representative from the Natural History Museum asked Charmaine whether the BHF also talks to patients with regards to communication. Charmaine stressed that the patient voice is becoming increasingly important. However, things that patients feel most strongly about are not always areas which need a lot of research. In the United States, there is an open model of research where the public is actively involved in conducting research but it was felt that the United Kingdom is not yet ready for such an open approach to research.