

A contribution to the BBC review of accuracy and impartiality in science reporting

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The Society of Biology is pleased to respond to this review and welcomes the BBC's efforts to seek the views of the scientific community on the accuracy and impartiality of BBC coverage of science.

We will restrict our comments to the biological sciences. However, given the broad range of these from biomedicine, to environment and biological systems, we must still consider a vast swathe of the BBC's science coverage. We are, unfortunately, unable to comment on all aspects of the BBC, the public face of which is very broad indeed. Our main comments relate to the main television channels (BBC 1 and 2), the main radio channels (especially BBC Radio 4), and the BBC Online News and News Science and Environment services.

Because of the central role of biology in major events and challenges of our time, there is inevitable interest in current affairs and news stories. These include climate change, public health policy, food security, contagious disease, energy policy, addiction, land use, and mental capacity to name a small few.

In general the BBC covers the biological sciences frequently and to some depth although there remains a challenge to increase both the extent and complexity of that coverage. From the point of view of easily anticipated public interest there is an understandable bias towards programming which focuses on wildlife and medical stories. While these are highly relevant topics they do not by any means represent the range of the important contributions of biology to the life of the nation (and the international scene) which the BBC covers. Furthermore, there is some distinction to be made between science and the application of science. Emphasis on application tends to be placed more heavily on biomedical research than on zoological and some botanical research which can be misleading.

It is difficult to assess the correct balance to be struck between lay and specialist audiences. As a national broadcaster, and an internationally referenced one, the BBC undoubtedly broadcasts to a large expert and well-informed public as well as to many who look to it as a source of new knowledge. One of the very difficult challenges that the BBC faces is to balance the expectations of all groups and to make complex issues, which are of great interest to specialists, accessible to a lay audience. *Horizon* held an excellent reputation for many years in this regard, but in recent years there has been concern about the reduction in serious content. In a society which has accumulated vast information bases on many topics, it is vital that the public are as well informed as possible on key issues as these may relate to real decision points in their lives, including on matters of health, environment and political judgement. We believe that the intentions of the BBC are good but we would encourage them to aim 'high' in terms of the quality and complexity of the coverage which they produce.

Biology can be entertaining, surprising and amusing as well as intriguing and these aspects are undoubtedly an audience draw for the BBC. They are often the access points which draw students and enthusiasts to dedicated study in science. The success of BBC Radio 4's *So You Want to be a Scientist* this year is testament to the fact that there is a big public interest in the ups and downs of genuine scientific work. Within the world of professional science there is human drama too, although personal conflict is rarely a good access points for the illumination and explanation of science, despite being interesting news.

News coverage in general on the BBC carries great weight and so its accuracy and fairness is viewed acutely by the scientific community. While features, commentaries, specialist programmes and blogs are viewed overall as attempting to be fair and accurate there remains concern about the pressures placed on judgement by the demands of rapid news cycles. This can operate in several ways. New reports, even in eminent journals, may not always represent the dramatic development status accorded them in news items. We understand that it is important for short news stories that findings are easy to present with daily-life context and relevance. This means that basic research studies, which are often the more profoundly relevant to the scientific community are unheeded, and this can create an impression that easily translatable research is the public priority. It also runs the risk of continually raising hopes of scientific and particularly medical breakthroughs as there is an understandable editorial interest in health-related stories. There is concern however at a tendency to 'medicalise' basic biological research in order to bring these stories to a perceived ready audience.

Another significant concern raised about news coverage is the treatment of risk. Apart from the absolute risk of death incurred at birth (it is an inevitable consequence), subsequent 'when and how' risks are all partial and therefore require relative or numerical expression. It remains very difficult but important to communicate risk to the general public and this is not aided by either sensationalism or repeated pressing of interviewees for definitive answers, which is perceived as a problem by biologists. Concerns have been raised that professional scientists reluctant to give unqualified answers can be perceived as fudging obfuscators and this is unhelpful to both the message and the messenger.

Science progresses by debate and experimentation but this is rarely a formal two-way debate. While we understand and endorse the BBC focus on unbiased reporting, we feel that simple attempts to achieve this can of themselves introduce bias when the chosen method is to invite opposing sides on an issue to make comment. Much has already been said on this topic, particularly in relation to coverage of the MMR controversy in the media broadly (including the BBC) and we do not wish to re-tread old ground. However, we must represent a notable sentiment in the biological community that this remains an issue in news coverage of science with societal impact. Climate change and GM technology, among other topics draw comment and a mixture of scientific and social argument. Correct representation of the science and the professional views of scientists on these matters is certainly challenging in a news context but we recommend that the more frequently they are handled outside the news environment the better. Radio 4 (*Today, In Our Time, Material World, More or Less* and others) and the main online pages (Green Room, Richard Black, blogs etc) generally make a good contribution in this (despite occasional causes for concern). Special programmes such as Roger Harrabin's recent two part reflection on his experiences in reporting climate change (*Uncertain Climate*) are also an interesting development. We believe that a public with a proven interest in following complex thrillers, electoral systems, families and social sagas is entirely receptive to hearing about the complexities of science and of

understanding that majority and minority views can often be just that. The popularity of narratives in which a non-orthodox thinker triumphs over the establishment is of course based upon many important cases, but this must not be allowed to become the dominant narrative because this of itself will introduce bias. Many plucky and well-intentioned (as well as less so) scientists challenge the existing wisdom but it would be wrong to create an environment in which such a cast of characters is seen as inevitably leading to the triumph of the individual. Often it does not, and exploration of this story-line is also important.

Summary

In general, the Society regards the BBC's efforts to be impartial and accurate to be widespread and genuine and we encourage the BBC not to simplify and reduce the scope of reporting in an attempt to accommodate these objectives.

In particular, the Society urges the BBC to:

- Provide programming and editorial comment to encourage a better understanding of relative risk, especially in medical stories.
- Create more balance in the range of biology stories by some reduction in the focus of medical and environmental issues in favour of the many other areas of life science, and to aim to communicate the diverse and complex storylines which evolve in science.
- Continue to use the experience of the MMR vaccine story to endeavour not always to give equal weight to opposing sides of an argument, instead taking account also of the relative weight of each argument.

The **Society of Biology** is a single unified voice for biology: advising Government and influencing policy; advancing education and professional development; supporting our members, and engaging and encouraging public interest in the life sciences. The Society of Biology is a charity, created by the unification of the Biosciences Federation and the Institute of Biology, and is building on the heritage and reputation of these two organisations to champion the study and development of biology, and provide expert guidance and opinion. The Society represents a diverse membership of over 80,000 - including practising scientists, students and interested non-professionals - as individuals, or through the learned societies and other organisations listed below.

The Society of Biology is pleased for this response to be publicly available and will shortly place a version on www.societyofbiology.org. For any queries, please contact Dr Laura Bellingan, Society of Biology, 9 Red Lion Court, London, EC4A 3EF. Email: policy@societyofbiology.org

Appendix 1 Society of Biology Member Organisations

Anatomical Society
Association for the Study of Animal Behaviour
Association of Applied Biologists
Biochemical Society
Breakspear Hospital
British Andrology Society
British Association for Lung Research
British Association for Psychopharmacology
British Bariatric Medical Society
British Biophysical Society
British Crop Production Council
British Ecological Society
British Lichen Society
British Microcirculation Society
British Mycological Society
British Neuroscience Association
British Pharmacological Society
British Phycological Society
British Society for Ecological Medicine
British Society for Immunology
British Society for Matrix Biology
British Society for Medical Mycology
British Society for Neuroendocrinology
British Society for Plant Pathology
British Society for Proteome Research
British Society for Research on Ageing
British Society for Soil Science
British Society of Animal Science
British Toxicology Society
Experimental Psychology Society
Fisheries Society of the British Isles
Genetics Society
Heads of University Biological Sciences
Heads of University Centres of Biomedical Science
Institute of Animal Technology
International Biometric Society
Laboratory Animal Science Association

Linnean Society
Marine Biological Association
Nutrition Society
Physiological Society
RNID
Royal Entomological Society
Royal Microscopical Society
Royal Society of Chemistry
Science and Plants for Schools
Scottish Association for Marine Science
Society for Applied Microbiology
Society for Endocrinology
Society for Experimental Biology
Society for General Microbiology
Society for Reproduction and Fertility
Society for the Study of Human Biology
SCI Horticulture Group
Society of Pharmaceutical Medicine
UK Environmental Mutagen Society
University Bioscience Managers' Association
Zoological Society of London

Supporting Members

Association of the British Pharmaceutical Industry (ABPI)
Association of Medical Research Charities
AstraZeneca
BioScientifica Ltd
Biotechnology and Biological Sciences Research Council (BBSRC)
GlaxoSmithKline
Institute of Physics
Medical Research Council (MRC)
Pfizer UK
Syngenta
The British Library
Wellcome Trust