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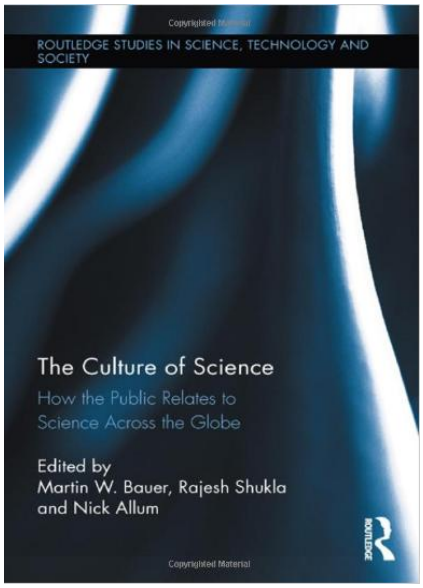
BOOK REVIEW

The Culture of Science: How the Public Relates to Science across the Globe, edited by Martin W. Bauer, Rajesh Shukla and Nick Allum, published by Routledge, 711 Third Avenue, New York, NY 10017, 2012



In March 2012, 65% of Americans surveyed said they thought that climate change was occurring. By September, after the summer drought, that number reached 73%. In December, an Associated Press-GfK poll reported that after Sandy, 78% of Americans now say global temperatures are rising. Closer home, opposition to India's nuclear power projects in Kudamkulam and Jaitapur became more strident after the Japan nuclear fiasco.

The book under review takes a closer look at the phenomenon reflected in the above incidents — a phenomenon called the 'great societal conversation about science'. The phenomenon of 'societal conversation about science' goes beyond opinions expressed in survey interviews. Surveys, the editors write, may be good at societal self-observation but are insufficient to map societal conversation, which encompasses writings in print and news media, policy documents, informal

and formal learning, exhibitions etc. Societal conversation about science tends to fluctuate with social contours, language, culture, currently raging controversies and so on.

With increasing realization round the world that the immense benefits of science and technology are often also accompanied by serious social drawbacks, instances of emotional reactions against science and technology are increasingly finding expression in protests against stem cell research, genetically modified foods, nuclear power projects, big dams and so on. Several surveys have ascertained that while scientific knowledge among the public has been increasing over the years, there is also an increasing lack of trust in science and technology. Members of the public have also been calling for more state intervention and urging caution in issues that hold even an iota of potential to cause public harm and those that come with an ethical baggage such as GMOs, human cloning, etc.

The Culture of Science claims to give the first comparative account of the changes in public perceptions of science within the US, France, China, Japan, and across Europe over the past few decades. The contributors address varied topics such as the influence of cultural factors; the question of science and religion and its influence on particular developments (e.g. stem cell research); the demarcation of science from non-science; comparative view of adolescents' attitudes towards science; beliefs about astrology across Europe; statistical modeling of Public Understanding of Science; cultural differences in perceptions of animals and nature, etc.

Basically, the book is based on the deliberations of a meeting of a group of researchers who met in 2007 in London's Royal Society to discuss recent developments in 'International Indicators of Science and the Public'. Participants belonged to 21 countries covering all five continents. Essentially, the meeting centred around the need to improve survey research and to understand the environment of the respondent and the scientific

culture in which the respondent is situated which could further help map the societal conversation.

The book is an attempt to take a fresh look at the research effort in the field of public understanding of science. It calls for consolidating the scattered data emanating from solitary surveys of PUS in many regions of the world. The first six chapters of the book document the progress in longitudinal analysis with data from France, US, Bulgaria, the UK, Japan, China, and across the old Europe tracing the trends in public understanding of science across time period and across generation.

The next four chapters offer cross-national comparisons on a number of indices. For instance, analysis of a large-scale regional Chinese survey of 2007 and the 2005 Eurobarometric survey; a composite science culture index comprising state-level STS data and individual-level PUS measure for 23 Indian states and 32 European national units, and analysis of the forty-country ROSE database which collects data on attitudes to science among adolescents aged 15.

The next part of the book deals with measurement issues. It takes a look at whether items in questionnaires, such as literacy, interest, attitudes and engagement with science are diagnostic of difference between populations.

The fourth part investigates cultural markers. It deals with issues such as cultural variables that can play out between astrology and science, between science and religion, or on the strength of any boundary between animals and humans.

The last part, comprising six chapters, offers new ideas for construction of indicators of science culture. It also explores data streams that differ from survey efforts explored so far. This part stresses on the fact that the issue is not to substitute the survey effort but to consider it only as part of the solution, reallocating resources to other data streams.

The book makes an effort to contribute to the discussion on development of global science indicator systems. It makes the

case for reintegration of PUS indicators with the highly developed objective S&T indicator systems (R&D expenditure, scientific personnel, publications, impact measures etc).

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