

A Public Matter

CLASSIC WORK. Russell B. The social responsibilities of scientists. *Science* 1960;131:391-2.

Bertrand Russell—British philosopher, mathematician, social critic, and winner of the 1950 Nobel prize for literature—presents anecdotes on the public influence of the scientist dating back to Da Vinci. Russell maintains that facts, “for instance, as to the possible lethal qualities of fallout—do not acquire their due importance if they remain buried in scientific journals.” Such information can reach “the hearts and minds of vast numbers of people” only through the help of scientists, although such helping could cause them great difficulties.

Rowland FS. President’s lecture: the need for scientific communication with the public. *Science* 1993;260:1571-6.

Aside from the usual concerns about lack of public understanding, the then-president of the American Association for the Advancement of Science identifies problems posed by increasing specialization in science. For example, because the authors did not consult the original report, a book about global warming written by scientists contained errors about the influence of volcanoes. The erroneous statements, in turn, were promulgated by the lay press and became impossible to correct. Rowland sums up cogently: “The combination of some but not enough intelligence, plus considerable amounts of both ignorance and arrogance, can easily lead to being badly wrong in full voice and, worse yet, with a considerable following.” (Would you believe a little knowledge is a dangerous thing?)

Lederman LM. Paint a vision of the possible. *Bull Atomic Sci* 1994;50(Mar/Apr):3.

The history of funding of the late Superconducting Super Collider (SSC) spanned three US presidents. The project was 20% complete and on schedule when it was canceled in October 1993, a casualty of the “war” on basic science. The weapon

to protect basic science? Faith of the masses in science. This editorial may be a perfect example of how scientists misunderstand the public understanding of science.

Priest SH. Information equity, public understanding of science, and the biotechnology debate. *J Commun* 1995;45(winter): 39-54.

The public view of the risk associated with science was measured through focus-group discussions. The data showed that the public supports science itself but is concerned about the ethics and self-interests of those promoting new technology. One-sided science news stories that emphasize the positive (see above) may have a boomerang effect that inadvertently fosters public fears, whereas addressing the full range of ethical, social, economic, and policy issues of science may foster public support by making public dialogue possible.

Bensaude-Vincent B. A genealogy of the increasing gap between science and the public. *Public Underst Sci* 2001;10:99-113.

Russell’s and Lederman’s editorials give this paper more weight. It traces how the notion of a gap between science and public understanding developed and shows that 20th-century physics played an important role.

Mitsuishi S, Kato K, Nakamura K. A new way to communicate science to the public: the creation of the Scientist Library. *Public Underst Sci* 2001;10:231-41.

The Scientist Library (www.jtnet.ad.jp/WWW/JT/Culture/BRH/s_library/index.html), available on the Web since 1997, uses information about the personalities and research of 88 biologists to present science as a whole. Showing the “scientist as a person” can be an effective tool for communicating about science that also allows scientists to speak to the public.

Note: In this column, I begin to use older articles in a more pointed way by referring to them as “classic works”. If you have a candidate, please submit it.

As we start off the second (or third!) year of the new millennium, interest in the public understanding of science is increasing. There is even a journal by that exact title that was started in 1992. The current column focuses on articles about the public understanding of science.