

Reinventing the relationship between science and the public

In his four consecutive articles in the News section¹⁻⁴, David Cyranoski timely covered recent actions by the working groups of the Japanese Government Revitalizing Unit to cut the budgets of almost all projects including scientific ones. This is indeed a serious situation for the Japanese science. However, having read the article published online 26 November 2009³, I equally noticed serious problems in the recognition of science on the part of scientists. In this article, Nobel prize-winning Susumu Tonegawa is quoted as saying in the symposium held at the University of Tokyo: “People don’t realize how the fruits of basic science are all around them, in their [Global Positioning Systems], their vaccines, their mobile phones”, as if the lack of understanding were the fault of people. Furthermore, another Nobelist Ryoji Noyori straightforwardly demanded “more money, not less,” for the funding of graduate students in science and the investment in university education. As Cyranoski rightly depicted this situation, “much of the discussion lamented the Japanese public’s lack of appreciation for the value of basic science.” However, there seems to be no hint in the comments from two Nobel laureates that they have reflected upon what science, not science-technology, is really about and why science is indispensable to our daily activities, and above all no intention to educate people by sharing their interpretations of the deep meaning of science with them. Without it, it is hard to obtain a public support that is critical to the future of science and more importantly to our society.

Carl Woese, for example, rightly pointed out in his essay⁵ that “a society that allows biology to slip into the role of changing the living world without trying to understand it is a danger to itself.” We, scientists and philosophers of sciences, have not done enough efforts to convince the public of the importance of achieving a society build upon scientific understandings. As Leo Esaki said in the same symposium that “this is an opportunity for us to explain to everybody the significance of science”³, we have to prudently make a step forward to this direction. In the long run, trying to reinvent novel interactions and understandings between scientists and the public, rather than simply lamenting a lack of understanding or protesting against the government actions, will contribute to the solid future not only for science but also for our society. One may find a hint in the recent endeavours in Spain⁶ that mobilized every scientific branch to influence political decisions in the end.

1. Cyranoski, D. "Hope for Japan's key projects" *Nature* 462, 835, 2009
(15 December 2009)
<http://www.nature.com/news/2009/091215/full/462835a.html>
2. Cyranoski, D. "Japan budget threat sparks backlash" *Nature* 462, 557, 2009
(1 December 2009)
<http://www.nature.com/news/2009/091201/full/462557a.html>
3. Cyranoski, D. "Japanese scientists rally against government cuts"
(26 November 2009)
<http://www.nature.com/news/2009/091126/full/news.2009.1108.html>
4. Cyranoski, D. "Japanese science faces deep cuts" *Nature* 462, 258-259, 2009
(19 November 2009)
<http://www.nature.com/news/2009/091118/full/462258a.html>
5. Woese, C. "A new biology for a new century" *Microbiol. Mol. Biol. Rev.* 68:173-186,
[2004](#)
6. Guinovart, J.J. "Mind the gap: Bringing the scientists and society together. *Cell*
137:793-795, 2009

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