# From our readers

## PUBLIC ATTITUDES TO NANOTECHNOLOGY IN EUROPE AND THE UNITED STATES

*To the editor* – In 2003, an editorial in *Nature Materials* (**2**, 499; 2003) applauded the US consideration of the ethical and societal aspects of nanotechnology. If the confusion and controversy created by GM agriculture are to be avoided, this is an equally urgent issue for Europe. What is the evidence?

In sample surveys in Europe and the US we asked respondents whether nanotechnology 'will improve our way of life'. Whereas 50% in the US say 'yes' and 35% say 'don't know', the European figures are the mirror image, with 29% saying 'yes' and 53% saying 'don't know'. Furthermore, people in the US are significantly more optimistic about eight familiar technologies — such as mobile phones, the internet, solar power — than are Europeans.

People in the US assimilate nanotechnology into a framework that reflects shared values about the benefits of technological innovation. This is evident in a comparison of nanotechnology's 'optimists' and 'don't knows' in a multivariate analysis. The optimists are more interested in science, more enthusiastic about progress, more confident in nature's ability to withstand human intervention, and more trusting of those involved in innovation and regulation of technology.

We also analysed the coverage of nanotechnology in two opinion-leading newspapers — the *New York Times* and the London *Independent*. Figure 1 shows an increase in risk and benefits in both newspapers from 2002 to 2003. But crucially there was considerably more coverage of benefits in the *New York Times* than in the *Independent*. Media coverage is more slanted towards a supportive culture of science and technology in the US, and if what we see over the past four years turns into a trend, then this is likely to have implications for public support for nanotechnology.

What of the future? In the US, the culture of technological optimism is likely to keep nanotechnology out of controversy. But in Europe, how the public come to understand nanotechnology will be a crucial issue. If it is seen as an extension of the life sciences, and therefore as a beneficial application like biomedicine, the future may be rosy. But if it is mainly associated with risks and uncertainties, as were GM foods, or as depicted in Crichton's *Prey*, then we might see a copy of the stalling of agri-food biotechnologies.

And how will governments react? As with biotechnology in Europe, will process-based regulatory systems lead to new 'nano-laws'? Will a lead from the European Commission avoid the problems of multi-level policy making, or will individual EU member states be pressed into legislation to calm public anxieties?

Yet, the strong association between public perceptions of nanotechnology and other technologies suggests that the debates over nanotechnology should have a wider agenda: an agenda centred on the ethical and societal aspects of technological innovation; less about science and more about the type of society that developments in nanotechnology make possible.

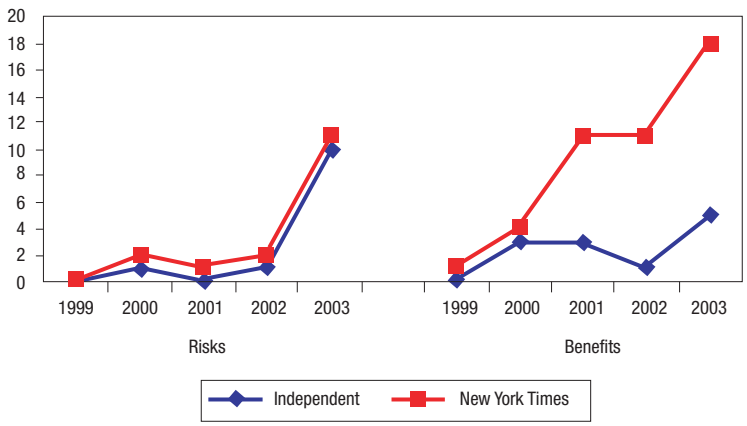


Figure 1 Media coverage of the benefits and risks of nanotechnology.

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For a more detailed account of the data presented here, see *Public Understanding of Science* (in the press).