

The Precautionary Principle is causing a scare

Bill Durodié worries about the self-appointed experts regulating science

The Prime Minister's recent speech to the Royal Society argued that: 'Responsible science and responsible policy making operate on the precautionary principle'. The precautionary principle is held to suggest that, in the absence of definitive scientific evidence, measures should be taken to protect the environment or human health whenever there is any threat of serious or irreversible damage to either.

Critics have argued that, as certainty is never possible and irreversibility inevitable, the principle is a recipe for paralysis. Further, defining the extent of evidence necessary to justify concern, as well as what measures should be invoked and by whom, are considerations lending themselves to significant commercial and political manipulation.

Equally important, in my view, is the threat posed by the precautionary principle to science. The principle encourages an approach that continuously seeks to go beyond the available scientific evidence. Moreover, it demands the inclusion of new voices to act as sources of authority in future deliberations on all scientific matters. Taken together these two elements amount to what could be broadly defined as the 'institutionalisation of rumour'.

Inevitably, in order to err on the side of caution, scientists are forced to consider layer upon layer of worst case scenarios even where the conclusions become absurd or implausible. This explains why environmental campaigners and consumer activists prefer to emphasise the 'hazard' attached to a particular situation rather than the 'risk'. Stairs are a hazard, but the likelihood of

injury is a risk. Everything we do exposes us to hazards. However, it is *how* we do things that determines the risk. Emphasising hazard effectively removes human agency from the equation and ignores our ability to deal with, and even to choose to take risks. By insisting on worst case evidence we effectively remove our will and ingenuity from the picture and rather unsurprisingly are left with an image of a frail humanity filled with victims who need to be protected from nature and human action.

Hence the Stewart inquiry into the safety of mobile phones, despite finding no evidence of any harm, concluded with a call for further investigation, as well as the need to take account of non-peer reviewed and anecdotal evidence in order to 'keep ahead of public anxiety'. As a result, new mobile phones now have to carry a warning label with their SAR (specific absorption rate) value indicated. This is despite all parties being agreed that heating effects are not the issue, but rather the elusive non-thermal effects. In other words, as one commentator put it; 'in its rush to be open about communicating risk to the public, the government has simply forgotten that there was no risk to communicate'. Others have pointed to the fact that the government reaction is driving public concern rather than responding to it.

Application of the precautionary principle almost invariably demands the elevation of new 'experts', ranging from constellations of professional risk managers and communicators, to ethicists and relatives of the bereaved. Thus parents of autistic children were recently promoted into sources of

authority on the use of the MMR vaccine. It is almost as if the government and media feel that the less somebody knows about an issue the more authority they have in making public pronouncements. It is ironic that, while being told to distrust the old sources of authority, we are also being asked to invest our trust in those who know nothing at all about the issues.

In addition public 'values' now have to be incorporated into the scientific decision-making process. These so-called values are usually no more than opinions, which should be challenged just as rigorously as the scientific evidence itself. But by labelling these opinions as 'values' the advocates of caution are attempting to set them beyond critical scrutiny.

Further, whilst science can inform democratic decision-making, it is not in itself a democratic process. We are witnessing an attempt to reinvigorate the political process by encouraging the public to believe that they can determine the legitimacy or otherwise of some scientific result by an opinion poll. You don't have to be a fanatical 'progress addict' to recognize how dangerous this is. While there was much to be commended, especially by way of sentiment, in Tony Blair's speech, his reluctance to question the new orthodoxy of precaution presents a serious risk to science, which aims to discover truth by exploration and experiment. It is indeed high time we applied the precautionary principle to itself.

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