Society needs more than wonder to respect science

Researchers are well placed to explain concepts, but journalists will bring the critical scrutiny needed to integrate science in society, says **Susan Watts**.

I don't normally watch football on television, but recently I have been paying attention. What has happened in sports presenting, with former and current players replacing specialist journalists, is creeping into science coverage too.

One television executive put it bluntly to me early this year. "We mainly use scientists as presenters, even if it's not their area of expertise. They have more credibility. A journalist would have to have a really unique selling point for us to use them."

By unique selling point, they meant special access, or a personal link to the story being told. But surely journalists already have a unique selling point — they are journalists?

Footballers talking about what we have seen on the pitch can make for cracking analysis. But such coverage will never expose the uncomfortable side of sport that is away from the screen — the drug-taking or the match-fixing. And what about the awkward unease among former heroes-cum-presenters when confronted with the prospect of throwing a tricky question at a current star, even though viewers might be shouting at the TV for them to ask it (my sons among them)?

Sport is not a life-or-death issue, for most people at least. But science and engineering can be. Scrutiny is crucial.

There is a fundamental difference between science communication and science journalism. At the science communication end of the spectrum sit the stories that show people how exciting science can be, the discovery of a wonder material, perhaps, or a new subatomic particle. Explaining the significance of sightings of the Higgs boson or of gravitational waves from the early Universe takes real skill.

Science journalism's job is to tell the stories that explore the murky underbelly of science, like the selling of bogus stem-cell cures to vulnerable patients. It is science journalism that will expose the rushed policy-making, the undisclosed profiteering, the conflicts of interest and the vested interests, the bad experiments, or the out-and-out frauds.

For both, you need to be the kind of person who asks "why" a lot. You need to enjoy coaxing sometimes shy, or reluctant, or just plain difficult scientists to tell you about their work — and then to feel enthused enough to want to tell somebody else.

But a journalist also needs to be persistent, and brave enough to find out the things that people don't want the world to know, and who often work hard to stop the world knowing — and to tell those tales too.

More uncritical wide-eyed stories about the 'wonder' of science at the expense of science journalism is a decadence we can't afford, intellectually or practically. I am as awestruck as anyone by the beauty of the aurora borealis, but I also want to know more about issues such as what is being called the replication crisis in science. When important cancer papers, for example, can't be reproduced by other scientists, something is wrong. That is hard journalism to do, and even harder to put on television.

So what is behind the subtle shift to science communication, and away from science journalism? One enduring problem is that our media remains dominated by people who are all too often educated in the humanities. Irrespective of how talented these people may be, when the majority of the most-influential roles are filled by people who have no understanding of how science works, then it rarely occurs to them that science is populated by people every bit as interesting and as human as those in the arts or politics, or that the internal battles of science can be every bit as personal and as bitter as any in industry or business.

In broadcast journalism at least, science journalists are increasingly viewed as dispensable as long as a programme editor can dig one out when a big health story surfaces, or in times of extreme weather. If, instead, these editors valued the input of journalists who have a science specialism in the newsroom every day, they would gain not only an eye on issues coming over the horizon, but also the day-to-day drip feed of a scientific perspective into all the stories that appear on a programme. That way, the scientific viewpoint becomes part of a programme's lifeblood, as it should be in a healthy, modern society, and not an added extra.

WE NEED **SCIENCE JOURNALISM** TO WEIGH UP THE VALUES AND **VICES** OF SCIENCE.

We need science journalism to weigh up the values and the vices of new science. Without it, we will struggle to place science in its social context as we grapple with its challenges. Take genomic medicine, for example, where there is a balance to be struck between promises of better, personalized health-care and threats to the privacy of our personal data.

The risk is that in our intoxication with the 'wonder' of science, we miss its murkiness. Or worse, we deliberately avoid asking the questions that challenge scientists and technologists about the work they do. Lose that critical perspective, and we lose the ability to take an informed view of what it is we want from science. And do we really want science coverage to vie with that witless brand of sports commentating: "He'll be disappointed with that, Brian"? Indeed, won't we all. ■

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