
Galileo's Dilemma

Clive Marks draws comparisons between the censorship of today's scientists with Galileo's struggles with the Church.

Galileo took no prisoners when it came to challenging dogmas. He believed that scientists (or "natural philosophers", as they were then known) should "soar like eagles", and was contemptuous of others who uncritically supported established belief, saying that they "flocked like starlings and befouled the Earth beneath them". Challenging the status quo that the Earth was at the centre of the universe led to his loss of grace in the eyes of one of the biggest bureaucracies of the day – the Roman Catholic Church.

Galileo's example is synonymous with high ideals in science – reporting your findings without fear or favour and conviction, even at a personal cost. Or so is the way it should be.

Unfortunately, in government this is rarely an example that scientists are encouraged to follow. Instead, science often sits in an uneasy stand-off with organisational policy in a murky relationship of mutual unease. The business of government and science is often at odds.

There has been remarkably little concern about the independence of scientists in the state public sector. Moreover, you're unlikely to hear

anything about it because, as public servants, state government scientists are usually forbidden to make public comments without approval.

Obtaining approval to publicly claim that the Earth was not the centre of the universe was difficult for Galileo, too. The Church appointed what in today's parlance would be known as a "media minder" (Father Riccardi) to ensure that its policy was not openly challenged. As long as Galileo stopped short of saying that he believed that the Earth revolved about the Sun he could have avoided a charge of heresy. But what good scientist would make such a Faustian pact, and be the custodian of new knowledge yet allow it to be timidly diluted so it becomes no more recognisable than the dogma it challenges.

A public servant is obliged to support and impartially enact the policies of the government of the day. But a scientist, who is also a public servant, may be in professional peril if he unilaterally supports a policy or predetermined direction and "flocks like starlings", as Galileo put it.

Supporting something uncritically often means allowing an unbalanced representation of facts or arguments.

Can Dr Jekyll comfortably co-exist with his bureaucratic alter ego Mr Hyde?

Science in wildlife management in Australia is a good example of an ongoing dilemma as the government (or the Crown) effectively "owns" the wildlife in Australia. Wildlife management is one of the few areas of government monopoly, with the vast majority of scientific research and management activities funded by government.

Perhaps he who pays the piper has the right to call the tune but, in the case of wildlife management, the government is all too often the song writer, producer, musician, purchaser and consumer of the tune. With such a government monopoly of activity, scientific impartiality would seem to be essential as a means to ensure the credibility of public policy.

There are a wide range of issues in wildlife management where the policy of the government department concerned departs substantially from the opinions of scientists within the organisation. Whether this is the management of threatened species, habitat conservation, koala or kangaroo culling, forest practices or pest management, there is often a schism between scientific opinion and government policy.

While this is hardly surprising, the manner in which political decisions can be taken on wildlife management issues and communicated without reference to the existence of differing scientific opinion is. In most other areas



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we expect that a political decision comes to us along with an ability to conduct an open analysis of the risks, caveats, compromises and uncertainties, usually via the media. However, when a government agency has an ability to control information and silence much of the informed opinion from scientists within a public organisation, how is informed analysis by the public possible?

It is quite apparent that misrepresentation or information, or its selective use, was cause for great public concern in the “children overboard” incident and in producing a case for war over “weapons of mass destruction”. In both cases the government held a monopoly on the information gathered by public institutions, and chose to use it selectively.

Government departments usually attempt to separate issues of policy from science and treat them as different realms. Some see policy and science as oil and water, where the slippery, lighter and more opaque policy sits confidently atop the more transparent science.

This arrangement starves science of the very oxygen it needs. Science thrives on debate and controversy born from competing views. In an ever more complex world, the public requires a more robust interface directly with the scientific community, not a timid and

sanitised conversation through layers of spin. Where an open debate and honest discussion may lead cannot be easily predicted, and it is difficult to see how there can be any expectation that policy can be insulated from such uncertainty.

Many senior bureaucrats and politicians maintain that government scientists have every opportunity to debate issues within the system of government. This is similar to the position taken by the Catholic Church in Galileo’s day. Given 100 or 200 years more, who knows whether the heliocentric model would have won the day from within the system? The question is whether it is in the public interest to conveniently restrict debates to within a government organisation or open it to the public that funds the very science that they are rarely exposed to.

In the public sector the paranoia with open scientific debate has much to do with the government’s media phobia. One could speculate that such media attention in Galileo’s day would have instantly engendered a spirit of conflict and politicised Galileo’s science.

Today the media does much to select combatants, tie spurs to their wings and set them loose for public entertainment. Hyperbole has aided in a gradual alienation of government science and the adoption of a siege

mentality against the media by some government departments. This, in turn, has done much to forge the bureaucratic chains that shackle scientific debate.

In the past 10 years the cultural change for government scientists in the workplace has been massive. Some states have aggressively corporatised their scientific capacities while others have attempted to establish a rigorous business culture. Funding bodies are now clients, the public a subset of stakeholders and research projects now produce products that are sold or marketed.

But the commercial imperative is not one that necessarily embraces a culture of impartiality and objectivity. While a schizophrenic conflict sometimes exists between the dual identities of public servant and scientist, dealing with the ethos of business makes the role of government scientists even less clear.

Galileo had a problem convincing a large bureaucracy of where it physically lay in the world. New knowledge and its inconvenient implications for an established policy drew him into conflict with organisational dogma.

Some 400 years later, in the often media-haunted world of the bureaucrat and politician, new knowledge and the turbulent process of its acquisition can still seem divisive. To be selective about information flow may be good sense for stable bureaucratic administration, yet stimulating informed debate in the community and provision of impartial information would seem to be a major role for public institutions.

If the community cannot be assured of the absolute impartiality of scientists employed by public institutions, and the scientists themselves have difficulty in defining their own role, who is the honest broker of scientific information?

Clive A. Marks was a former senior government scientist in the Victorian public service, where he was employed for 13 years. He is now the director of Nocturnal Wildlife Research Pty Ltd.