

Bring back Haldane!

Keith Davies argues that the business model for research leads to lack of public trust

Science advice to government is unavoidably political. This conflict of interest has driven a wedge between science and society.

If science is to survive in its current business-oriented research context, it will need to be able to deal with the conflicts of interest that will undoubtedly arise between different stakeholders.

Trust in a business environment

Over the last several years, there has been growing concern within the scientific establishment that the integrity of science is being undermined. For many scientists, this loss of faith seems unfair and simply unwarranted.

Where controversial biotechnology is concerned, others claim that today's distrust is very real and based around conflicts arising from questions around perceived benefits and, perhaps more importantly, ownership. Research that may benefit some sectors of business may not be compatible with the public good, leading to conflicts of interest.

Even within the scientific community itself there are tensions. Taking the issue of GM crops, for example, there can clearly be a conflict of views between molecular biologists, who insist on the precision and safety of genetically modified crops, and ecologists, who are more cautionary about the benefits and consequences of their use.

Revise the business model

It is around these and similar issues that society wishes to see science as transparent and accountable. Over the last two or three decades, however, there has been a change in the relationship between scientific knowledge and research. The 'gatekeepers of knowledge' used to be the editors of journals and careers determined by previously published research; today, modern laboratories are headed by a Chief Executive Officer and the new gatekeepers are the grant-awarding bodies whose membership includes people with industrial and commercial interests. The emphasis has changed from past research, to future research, and with this a change in bias from public service to business and wealth creation.

It may be that we need to abandon the idea of science as wealth creator, and once again put greater distance between customer and contractor. The 1918 Haldane report



GM corn: tensions between different groups

recommended that the research required by different government departments should be separated as much as possible from political and administrative pressures. We should consider reinstating Haldane's principle when it comes to public service research.

Science in a business context

The social philosopher and business thinker Charles Handy argues that the traditional *raison d'être* of businesses – to maximise returns for shareholders – is outmoded. He thinks that future companies will have constitutions.

Society can be seen to be made up of businesses as a wall is made up of bricks. But modern walls are held together by mortar which is the connective tissue between the bricks. I would therefore like to suggest that our education system, its art and its science are in part the connective tissue that holds the wall together. Turning science into purely another outmoded business or brick will weaken the wall.

Traditional business models have focused minimally on economic sustainability and maximally on growth and wealth creation. But this focus is changing. New business models adopt a triple sustainability, taking

not only economic sustainability into account, but also environmental and social sustainability. They emphasise the importance of internalizing the views and priorities of both internal and external stakeholders in a spiral process driven by successive rounds of innovation, while being sensitive to social, environmental and economic considerations. This approach produces a very different model to the one constructed around a single simple notion like wealth creation.

Science in modern society

We live in a scientific society, and science is at the vanguard of innovation and clearly has a larger role than simply being the connective tissue that holds society together. However, if science is to survive in the business context, it will need to be able to deal with the conflicts of interest that will undoubtedly arise between different stakeholders.

The last few years have seen the public's distrust of science grow when it comes to the environment and the issues concerning their wellbeing. In these circumstances, it needs to be open, accountable and demonstrate good governance.

Overall, in a democracy, this will require a delicate balancing act, that can cope with the different vested interests of the various stakeholders. Whether this can be done with a constitutional approach that incorporates triple sustainability thinking, without a return to public sector funding and the Haldane Principle, is an open question.

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