



Science dilemma: between public trust and social relevance

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Public mistrust stems from science own portrayal of ties to economic and political interests

The number of citizens paying deference to science and accepting scientific results outright as 'truth' is decreasing. Public attention to scientific fraud and misconduct in the past years may have boosted a critical perspective on science. But the questioning of scientific authority is more deeply rooted and long-term. It is widely assumed that scientists often take controversial positions and that these positions may be biased by scientists' self-interests. Or that they are tainted by their anticipation of political, economic or ecological interests. Therefore, public trust is no longer afforded to scientists and scientific organisations uncritically.

However, public opinion surveys regularly show that trust in science is much greater than trust in politics and economy. That has been the case, in the past decade, with the various Eurobarometers studies, including surveys on [responsible research and innovation](#), [biotechnology](#) and [risk issues](#), for example. The main difference between the perception of science, politics and economics is not in line with their ascribed competence, as one might expect. Particularly, given that the key societal function of science is to provide socially-relevant and valid knowledge. Instead, the main difference in public perception is pertaining to their [orientation towards the common good](#).

There is thus an apparent contradiction between wide-spread scepticism of scientists as public experts and positive evaluation of science as a field. This calls for a clear distinction between general trust in scientific institutions and context-specific trust in scientific actors in concrete situations. It is likely that both levels of trust are interrelated. Indeed, general trust or distrust will serve as a starting point to reflect on trust in specific actors in specific contexts.

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By contrast, trust assigned or declined in specific contexts will over time inform general trust ratings. But still, general trust in science institutions and situation-specific trust in concrete scientific actors result from different forms of reasoning.

Truth versus power

People view the scientific ideal of seeking the truth. The relatively high-level of general trust in science is probably inspired by such perception. The logic of science—aimed at discovering the ‘truth’— is perceived to be particularly compatible with the common good. In contrast, the logics of politics and capitalistic economy—aimed at gaining ‘power’ and ‘profit’ – are perceived as being less compatible with the common good.

They imply social competition between actors, creating losers and winners. This is because the distribution of power and profit is a zero-sum game; the distribution of knowledge is not. Power and profit are thus seen as being related to partial interests – of companies, labour unions or political parties, for example – rather than to the common good.

Public self-presentations of science focusing on the competitive character of research may therefore erode an essential basis of public trust in science: the conviction that science serves the common good. So does the public perception of science’s outcomes, especially when it reveals close interdependencies with economy and politics.

Shifting science reputation

Public opinion surveys regularly show that trust in scientists varies with their affiliation. Trust is higher for scientists in academia than for scientists in industry. This has been shown, for example, in Swedish data from the [VA Barometer 2014/2015](#). Media users who read articles or see films that refer to scientific experts or scientific knowledge often [express critical thoughts](#). These thoughts often illustrate the negative connotation in people’s mind of collaborations between science and industry when it comes to fostering trust in scientific expertise.

The obvious conclusion is that science should maintain more distance to economy and politics. However, it is not a realistic solution of the trust problem. This is because the societal merits of science largely depend on the use of scientific knowledge in economy and policy-making. And making knowledge effective in these fields requires close interactions of science with them. Maintaining distance to these fields would perhaps avoid problems with trust. But it would also decrease social relevance and utility of science – leading to another potential image problem. The necessary interdependencies with economy and politics hence result in unavoidable trust problems.

What are the conclusions for the public self-presentation of science? To demonstrate societal utility, science must point to compliance with external expectations; including those from economy and politics. But it must also emphasise its identity and avoid giving the impression of being exploited. Mastering this dilemma in a delicate balancing act is one of the major challenges for science and its public self-presentation.

Academia represented as a business via PR

Two trends nowadays imply long-term image problems for science: so-called ‘economisation’ and ‘trivialisation’ of science in the way it portrays itself to the public. Economisation of science results from academic institutions aiming to demonstrate good performance on economic criteria such as competitiveness, efficiency and utility. In the past, we have seen a growing weight of organisational public relations in the public communication of science.

This is not *per se* problematic. But it goes along with increasingly strategic orientation of science communication aiming at the promotion of organisational goals: legitimisation of resources, branding in education markets, R&D and health services, and representation of organisational interests in research policy issues.

Academic institutions representing their interest as stakeholder relying on strategic public relations is not only legitimate but unavoidable. Particularly in a media society, in which decision-makers and voters strongly respond to public visibility.

Interest-driven science communication may have unintended consequences for the public image of science, however. For example, according to the sociology of science, scientific achievements are developed in "scientific

communities," which extend across organisational and national boundaries; organisational public relations tend to frame these achievements as 'output' of organisations, though.

Much further research is needed to fully understand the implications of increasing strategic communication for the public image of science and the public communication of knowledge. But we may speculate that scientific equipment, infrastructures and funding—as typical resources provided by organisations—will get more emphasis in public communication of science at the cost of covering the intellectual process of research.

And applications of science may become more important compared to scientific knowledge and research processes. This trend contributes to a shift in the public image of science. Thus, the public is associating it more with expected practical utility and less with intellectual enlightenment. This, in turn, may have implications for public acceptance of academic freedom.

Science made to appear trivial

Another issue is the *Trivialisation* of the way science portrays itself to gain public acceptance. It results from downplaying the specificities of scientific action and the esoteric nature of much of scientific knowledge. Instead, it is linked to emphasising the conformity of science with general social values, familiar working routines and popular culture. This strategy is guided by the assumptions that the social distance between science and everyday life represents a problem for trust. And that it hampers the recruitment of student for science careers.

The diagnosis is not completely wrong but the therapy is problematic. Fashionable communication formats in which the medium dominates over content contribute to the assimilation of science in the popular culture of adolescents. This is the case of [Science Rap videos](#) or the German [Science Slam](#) movement, for example. But they also spread a delusive image of science: that it is not hard work but "fun."

Such an image of science, implicit in many infotainment formats, may irritate those citizens who have to work hard in their jobs and pay taxes that fund academic science. It also deceives students about the self-discipline required for a successful science career.

Towards more adequate self-portrayal

It is easy to understand the motivations leading to economisation and trivialisation in the self-presentation of science; but these trends are not without risk. Science should not to copy the communication strategies found in politics and economics. The relatively low trust [ratings](#) of economic and political institutions compared to science institutions suggest that the way they portray themselves has largely been ineffective in garnering public trust.

Instead, it is necessary to highlight the specific character of science—the creation of knowledge for advancing the common good—rather than to insinuate similarity with the economy or everyday life. The self-presentation of science has to focus on its principal product, which is knowledge. This means adopting a communication mode towards the public hinging on a explanatory and rational debating approach as default. This does not, however, mean that such communication mode is prescribed as involving mustiness, lack of humour or expert paternalism.

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