

## Comment

### SCIENCE JOURNALISM IN THE AGE OF CROWD: INTERVIEWS

# Science journalism and social debate on modernization risks

Interview by Filippo Bonaventura

## Pieter Maesele

*ABSTRACT: Technoscientific risks have been creating a growing social demand for participation in the scientific citizenship. This interview will emphasize that decision making (and so, in a more general sense, democracy) in the knowledge society requires new mediatic forums and new communication processes suitable to the highly multi- and inter-disciplinary nature of modern social debates. It argues that a new research agenda for risk conflicts, and a more neutral role for science journalism, are needed.*

Social risks in the last few decades are more and more based on crucial scientific issues. At the same time, nonetheless, they less and less rely on a pure scientific language. Social risks like GM foods, climate change, nuclear energy etc., deeply deal with economy, politics, culture and ethic, resulting in social conflicts and debates which are called to be solved in a democratic way. Every social actor involved in debates on social conflicts possess specific and different ideas, tools, expertises. They constitute, in a word, different world views, which often create competing or contradictory cultural and technological by-products. Science communication (and science journalism in particular) is supposed to weave and synthesize them in order to create new epistemically organic contents. The role of science journalism, therefore, is not to cause consensus or skepticism about social risk issues, but to create new physical and mediatic arenas in which expertise can be integrated. We talked about these topics with Pieter Maesele, media sociologist, researcher and Assistant Professor at the University of Antwerp (Belgium).

*What does exactly ‘conflicts’ mean? Does still exist a conflict between science and society, which communication is claimed to solve? Or is there another kind of inner conflict in society?*

No, I am not talking about a conflict between science and society. This would refer to the assumptions underlying the ‘deficit model’ all over again. Quite to the contrary as a matter of fact, as you could say that the evolution which started with the deficit model somehow turns full circle with the concept of risk conflicts in which we find that conflicting parties all call upon ‘sound’ science and scientific research to support their positions. I call for debates such as climate change, GM food, nuclear energy, nanotech, etc., to be recognized as genuine social conflicts, which are in very diverse and complex ways connected to the broader conflicts and struggles in our societies. They are called risk conflicts, as we find contestation between various social actors based on competing risk definitions. Although these are issues with a strong scientific dimension, these risk definitions are not only based on competing rationality claims, but also on competing values and interests. Of course, various social groups in society clash when it comes to competing values and interests (such as capital versus labor, conservative versus liberal, religious versus irreligious, etc.) but intuitively we expect that science-led debates (such as climate change or GM food) should be settled by referring to the science.

*How is it possible that competing social actors all refer to science to substantiate their conflicting positions?*

This is where I refer to Ulrich Beck's reflexive scientization-thesis, which has some very interesting things to say about the profound influence of reflexivity on the relationship between science and the public sphere. The qualitative difference with climate change, nuclear energy, GMOs, etc., is that we are discussing 'modernization risks', which are not only direct by-products of scientific and technological progress (making science complicit), but which are also ontologically and epistemologically complex: these are global risks, imperceptible to the senses and with incalculable, indeterminable spatial and temporal consequences. But while we are totally dependent on the instruments of science for making sense of these risks, simultaneously we find that individual scientific findings are no longer convincing. Why? Because as the institution of science is confronted with its own (negative by-)products, scientific disciplines and sub-disciplines (with their respective epistemic cultures), or even competing scientific paradigms (with their respective methodological differences) target one another as producers of risk, resulting into the production of a wealth of hypothetical findings, sometimes complementary, sometimes contradictory, sometimes incomparable.

*How do these contradictory findings compete in social and mediatic arenas? Do they create antagonism? Which is this antagonism's nature?*

This leads to a situation in which the target groups of science achieve a certain level of autonomy in making use of the sciences as 'self-service shops' allowing these groups to 'manipulate' the degree of (in)visibility of these modernization risks. Of course these processes create antagonisms. As in addition to the traditional political question of the distribution of (scarce) 'goods' in society, modernization risks bring forward the political question of the distribution of 'bads'. The antagonisms originating in these processes produce a new type of social conflict: 'risk conflicts'. In each case, conflicting social groups form alliances with sympathetic experts who either provide the necessary scientific expertise or who are asked to conduct new studies. However, scientific research is used by these social groups only as a material and discursive resource in pursuing broader social, economic or political agendas. So what we find, is that in late modern societies, claims about the legitimacy of particular forms of expertise and knowledge increasingly take centre-stage in social and political debates and become a force for social and political mobilization.

*Which are the actors involved in the social conflicts? Which are the tools (both technological and sociocultural) they use?*

These conflicts are played out between (and among) a very diverse range of social actors: science, political movements, industry associations, think tanks, social movements/NGOs, citizen groups, which use all the tools available to them. Each case will of course be different according to risk, context, period, location, etc. Therefore, the identification of these actors (and the tools they use) is always an empirical matter, which is why I argue that this notion of risk conflicts necessarily involves a new research agenda which needs to include the level of frame sponsorship allowing the examination of the discourses and strategies of social actors before examining media discourses. Nonetheless, there are some general patterns which we are able to conclude from empirical research. These conflicts do not take place on a level playing field. They are shaped by the distribution of economic, cultural and political resources and are strongly related to broader issues social and political power. Comparing the cases of GM food and climate change as examples of risk conflicts is very revealing here.

In my previous research into the controversy on GM (genetically modified) crops and food, I found two broad social groups confronting one another: on the one hand, a close collaboration between the biotechnology industry and scientific biotechnology institutes (often called a 'science-industrial complex' in the case of biotechnology; the 'promoters'), and on the other, a broad coalition of social movements and non-governmental organizations (NGOs; in this case environmental, nature, north-south/Third World and farmer movements together with consumer organizations; the 'challengers').

Both draw their scientific evidence from distinct epistemic cultures: the promoters of GM products primarily draw from the control-oriented scientific culture of molecular biology and genetics, while the challengers primarily draw from the uncertainty-oriented approach of ecology. Nonetheless, on a discursive level, we find the promoters repeatedly appealing to ‘sound science’ and ‘scientific consensus’ in claiming that their mastery over nature through GM technology is assured, while stigmatizing challengers as neo-luddites and anti-science radicals. On the other hand, we find the NGO-platform questioning these scientific assurances on scientific grounds.

*Which non-scientific values and interests are involved in such conflicts and debates?*

Of course, these opposing responses to uncertainty are interlaced with competing values and interests. In the case of the promoters of the technology, there are clear economic interests involved in promoting GM crops and food, either directly in terms of financial profits for the industry or indirectly in terms of growing research funds and scientific prestige for the science institutes. And here is where we find how the GM debate is entwined with broader issues of social and political power (and conflicts) in society. To remove these products from political regulation (and social debate) in favor of market forces, i.e. to depoliticize the debate, their promoters have been found to link a neoliberal discourse to a discourse of scientism, resulting in labeling each possible regulatory measure as an ‘illegal’ barrier to trade, because it is ‘unscientific’. On the other hand, I found the discourses of the NGO-platform primarily aimed at (re-) politicizing the debate, creating a discursive space for making it an object of political debate and regulation. So in the end, what was often interpreted as a conflict between scientific facts from the promoters of GM products versus epistemically-vacuous values of the NGO-platform was in reality a struggle between different politico-economic projects; or between the neoliberal project and possible alternatives.

Climate change is a different case, as here we find a coalition of scientific institutes and environmental and other NGOs claiming a ‘scientific consensus’ for motivating demands for strong political action on climate change, which implies political intervention in the economy, whereas a broad coalition of conservative think tanks (promoting certain values), industry associations (promoting certain interests) and climate skeptics (promoting certain rationality claims) fight the idea of a scientific consensus on global warming, exactly for avoiding political intervention in the economy. So when it comes to which side claims a scientific consensus we find the opposite situation than with GM products, but we also find that in both cases the main issue is avoiding democratic control over the economy. So science is only used as a material and discursive resource for pursuing broader social, political and economic agendas. Again, this is a struggle between politico-ideological projects, between left and right. Any other interpretation will only distract us from what is really at stake: mobilizing people for the key political choices between alternative futures needed to handle this issue.

*Relapses of technoscientific issues in society are growing increasingly widespread. Because of this, to isolate the mere ‘scientific’ side of an issue is becoming less and less sensible. Are we witnessing the rise of a new idea of science, no longer based on the scientific method?*

Of course not, there is no scientific knowledge without relying on scientific methods. On the other hand, there are – and will always be – many disciplinary differences and antagonisms within science leading to competing and conflicting claims to knowledge. So yes indeed, appealing only to the scientific elements in a certain case is not the way to approach these risk conflicts. We will increasingly find that when it comes to modernization risks – which constitute many of the most important issues of our times – science is used mainly as a material and discursive resource in pursuing broader agendas in which values and interests intermingle with the interpretation and use of scientific findings. Some people say that the problem is exactly the politicization of science, while relying on ‘sound science’ and ‘scientific consensus’ is the only rational way forward, in opposition to emotional and fearful counter-arguments. Either these people consciously aim at depoliticizing risk conflicts or they miss the complexity of what is happening and what is at stake.

*Why should we prefer a politicization of these issues over a search for consensus?*

And this is where Chantal Mouffe's work comes in. Although Mouffe has been a fierce critic of the broader 'reflexive modernization'-thesis by Ulrich Beck and Anthony Giddens, her work provides important arguments in support of the notion of conflict when approaching risk conflicts and modernization risks from the perspective of democratic politics and processes of democratization, as it implies a conceptual and empirical choice for politicization and conflict in favor of a rationalization and moralization of politics. A choice for the latter risks falling into the trap of a 'post-political' and 'post-democratic' condition by interpreting modernization risks as new problems asking for new solutions while glossing over the causal link between these new problems and the social organization and power structure of society. Post-politics represents a consensual mode of politics which prefers the (a-political) administration or management of social and ecological matters *within* the realm of existing socio-political (i.e., power) relations. By eliminating fundamental political conflict, it subsequently turns anyone who disagrees with the consensus into a fundamentalist, traditionalist or blind radical. Indeed, exactly the stigmatization we found of anyone disagreeing with seeing GM crops and food as the answer to all of the world's ills. This also applies to anyone who either denies the reality of (the scientific consensus of) global warming, but simultaneously also to who relates its handling to a fundamental transformation of the current (neo-liberal) social order. The consequence is a 'moralization of politics' which implies that the we/they opposition constitutive of politics is no longer constructed in political terms but according to the moral categories of 'good' versus 'evil'. Furthermore, a conceptual and empirical choice for antagonism and conflict allows feelings of passion or outrage to be recognized and mobilized politically within a democratic process, as we have seen that social movements/NGOs have had little trouble in mobilizing existing members as well as attracting new members when it comes to issues such as climate change or GM food. However, there are always attempts at overcoming we/they oppositions built on mobilized passions or outrage in favor of a consensus reached by 'rational' argumentation. In my research on GM products, I found one interpretation sponsored by its promoters arguing that only a 'rational' debate (based on 'sound science' of course) will allow to move beyond the 'current emotional debate' to finally discuss the 'benefits' of GM food. Underlying this interpretation is the idea that ignorant public perceptions are to blame for hindering the further development of GM products, as they lead politicians (who call for precaution and regulation) and the retail sector (who keep GM technology out of their home-made products) to chase their fearful voters and customers, respectively. This is what the rationalization of politics does: the underestimation and/or denial of the importance of the democratic subject and passions/outrage in democratic politics.

*Risk communication is necessary in an attempt to involve citizens in decision processes. It seems that new forms of integration of different expertises (i.e., scientific, politic etc.) are needed for decision making in the knowledge society. Which are in your opinion the most probable future scenarios?*

The fundamental question here is the intended function or role of citizen engagement. Is it primarily meant as a form of 'social disciplining' where citizens are brought in to eventually legitimate technological trajectories which have already been decided? Or are we talking about genuine democratization in which people are encouraged to demand their democratic rights when it comes to science and technology policy? The institutionalization of engagement and participation exercises in itself will not lead to a democratization of science and technology policy or to citizen engagement in key political choices between alternative (technological) futures. When it comes to risk communication, the media have a very important role to play, whether traditional mass media or new and alternative media. Making a conceptual and empirical choice for conflict over a rationalization of politics implies that we should avoid looking for an impartial standpoint that is equally in the interest of all in favor of creating forums and open up spaces in which conflict and dissent can be expressed. Here I see an important role for science journalists. If they see their task as facilitating public discussion and scrutiny, they should avoid a consensual type of science journalism which appeals to scientific authority and an unproblematized notion of scientific consensus to settle the debate between competing claims in favour of a conflictual type of science journalism that frames risk conflicts as conflicts between opposing responses to uncertainty, by revealing the competing sets of assumptions, values, and interests

underlying these responses and making them subject of public debate. Furthermore, this also implies going beyond PR material and press releases in favour of locating credible dissenting sources, such as NGOs. From this perspective, the exercise of scientific citizenship is about the opportunity to mobilize passions and put them to good democratic effort, for instance, by participating in street marches, boycotts and sit-ins as legitimate practices and with the aim of claiming your democratic rights when it comes to scientific and technological progress. Scientific citizenship should be approached and nurtured as a form of activism with possible alternative public understandings of science and technology.

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