Comment

Selling science in a soap selling style?

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It's *hard* to be a science journalist these days. Still tired because of the "Long night of Science" (probably the 6th during this summer) he or she is informed about the next "Children's University days" and another "girls day" coming soon – alongside the daily zapping through the 50 press releases of the *informationsdienst wissenschaft*¹ (are there really 50 newsworthy things happening every day in the labs of every European country?), not to speak of the dozens of press packages and glossy brochures of the pharmaceutical industry as well as the test kits of new products like a tongue cleaner (of which the phenomenal results are – of course – "scientifically proved"). In 2006 a journalist sometimes would wish that science communicators would communicate a little bit less – giving himself a little bit more time to find his own stories – just by himself.

It's also *easy* to be a science journalist these days. Many questions can be answered via internet access to peer reviewed journals and other online sources. The finding and checking of the seriousness of an expert is – in principle – also much easier than before. Whereas 30 years ago press officers were a rare species at European universities in 2006 they exist nearly everywhere and in most cases they will really do their best to help journalists with their investigation if they are asked to (although they are still *not always* high-class professionals). Or as Robert Logan said on a Bertelsmann Summer Academy in New York in 2005: "Today you get hands on evidence much faster than 30 years ago."

But what exactly is the relationship between science communicators and science journalists in 2006? Is all this science communication helpful because there are scientists and science communicators coming up with better explanations and helpful material? Or is there an increasing danger of business-oriented science communicators selling science to the media in a cheap soap selling style?

One general answer for journalists may be: The time they will win, the time they will lose sometimes. The good news "The quality of science communication is increasing" may be also bad news because the same is true for the danger of manipulation and of agenda setting in the media.

A more complex answer would be: It depends. It depends on the issue and on the kind of story the journalist is dealing with. And it depends on the kind of media section where the story should be published.

If the journalist has to answer in his weekly "readers asking the editors" section why the sky is blue or other popular questions like "Do brown chicken lay brown eggs?" the improved science communication culture is a very helpful tool. But to be sure that the new "breakthrough" in stem cell research announced by two prestigious institutions you may find it difficult to find out the truth in between all the details of the story which are communicated (and promoted) in a quite convincing matter.

The journalist in a news section may have to rely – more or less – on what the press officer of a scientific institution has announced because of the lack of time there (at least in comparison to a weekly or even monthly magazine). The problem is even enhanced by the fact that most of the non-specialized editors in the mass media are not yet aware of the fact that scientists and scientific institutions will (and often have to) sell themselves in a more and more aggressive way to get their funding. As the media are increasingly minute-oriented the danger of launching questionable breakthroughs in the media increases as well. Leaving its former nature protection area in his own science section and moving forward to the front (and the online) page science journalism underlies the same rules and pressures as any other daily news section. Sometimes especially journalists working for online media or news agencies have to admit: "We have no time to call another expert; we have no time to call anybody".

This statement may be true in many cases but at least in some cases there also seems to be a lack of knowledge how to investigate more efficiently. One helpful strategy to ensure a certain quality of science reporting (the "evidence-based reporting" claimed by Logan) may be a two step model of science journalistic evidence which I would like to propose: The first step could be achieved by using

formal check lists as they have already been proposed by several authors (e.g. Hartz&Chappell 1997/98; Moynihan 2000; Schweitzer 2005). The basis for this step of science journalistic evidence is not necessarily a detailed knowledge of a special scientific field but a general knowledge of the scientific system – and not too much reverence for highly decorated scientific experts as well. Questions to the professor and his press officer like "Why is your scientific breakthrough presented only in a press conference and not in a peer reviewed journal first?" are suitable for all, even non-specialized journalists – improving the probability to recognize charlatans or simple PR-campaigns.

The second step of science journalistic evidence may be a kind of second "science journalistic peer review process" done by the journalists supported by their scientific experts of trust. This second editorial process would give a better chance to identify bad or economically biased science or even scientific fraud. Of course, this second step could be more or less only suitable for quality media with specialized editors.

However, in the future some basic conditions in the media make it questionable whether science reporting will increasingly fulfill such an ideal quality model. On the one hand there is the described tendency in the scientific community towards a more aggressive way of communicating (or even selling) science. On the other hand the tendency in the media is going to produce faster news with less money and less employees. More and more work is done by freelance journalists who are often not paid appropriate by the media. That's why many of them do public relation for scientific institutions as well – being paid often much better there. As a result the danger of conflicts of interest is increasing especially among freelance journalists.

One helpful way to improve the situation at least in some cases may be a "coalition of trust" between journalists interested in "good journalistic practice" and scientists (and their press officers) still interested in "good (and not only economically oriented) scientific practice". The scientific side also should communicate more offensively when something is going wrong in the scientific community, for example, when another institution or expert in the field is exaggerating by selling old or even bad science as "sensational results".

Of course, such a careful relationship can only be build up on a personal not only on an institutional level. And it should never mean that science journalists will be regarded as a tool or subdivision of the PR-Section of any scientific institution or research company. Both sides have to be separated as much as possible – what is not contradictory to a good and trustful relationship, especially among those who are interested in an effective system of quality assurance of science to which the media can contribute.

Notes and references

¹ http://www.idw-online.de> in Germany is similar to the European Alphagalileo and the American EurekAlert/-service.

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