

Science Reporting in the Local Press in Germany¹

The quality of reporting in 11 newspapers on four issues: cloning, nitrofen, BSE and climate change

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Abstract

The purpose of this explorative study was to assess the quality of science reporting in the local press in Germany. We analysed news reporting on four issues (cloning, BSE, climate change and nitrofen-poisoning of eggs and meat) in 11 local newspapers in Germany. For the assessment of quality standards we relied on journalistic criteria that can be found mainly in manuals. From a journalistic point of view, all issues are multidimensional because of their resonance in the political and economic system. Not surprisingly, the main focus of all analysed newspapers was on the political and economical aspects of the issues. The scientific aspects (for example simple questions like: “What was the purpose behind the cloning of Dolly?”, “Why is BSE-testing not 100% reliable?”, “How dangerous is nitrofen?”) were – surprisingly - of no importance for the analysed papers. According to journalistic standards the reporting must be called incomplete, partly even confusing. The ability of the editorial staff to illuminate scientific backgrounds seems to be very limited. In the rare cases when science plays a role in the coverage, it appears either uncritically as a source of wisdom – like in the case of climate change - or - in the case of cloning – as a supernatural force working on our end. Our results suggest that the coverage reflects the huge gap still separating scientists and society.

Introduction

How does one assess the quality of journalistic science and risk reporting? There have been numerous attempts to find a common basis of assessment by applying different, intersubjectively verifiable methods, but no agreement could be reached so far (Bader 1998; Kitzinger/Reily 1997; Schanne 1998; Dunwoody/Peters 1992).

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There is no point denying that journalistic products usually do not fulfill the demand for accuracy a scientist expects his own results to meet (Dunwoody 1982). Just as no one would doubt the fact that journalistic constructions of “reality” do not reflect the reality of the scientific result but create their own “media” reality (Kepplinger 1987, 1991). There is, however, reason to doubt the argument that these deficits of journalism are worth criticising and should therefore be removed for the sake of recipients and certain strata of society, like the scientific community. From the point of view of the doubters though, approaches taken by the representatives of accuracy research or methods comparing the reality designs of journalists with those of scientists always reach the same conclusion: When devising its selection criteria journalism refrains from taking into account the relevancy criteria of the system it observes, be it science, economy, politics, or the judicial system. Journalism has to rely on its own criteria, otherwise it becomes a mere ward of science, and ceases to be journalism (Kohring 1997; Lichtenberg/Mac Lean 1988; Ruhrmann). As a result, research approaches like the ones mentioned above, which aim at turning journalism into a transmitter of scientific interests, must seem futile. All analysis based on hierarchically comparing the reality concepts of science and journalism, eventually has to end up with the same result: that of the discrepancy between realities and hence the „contortion“ of journalistic reality.

Looking upon the issue from a systems theoretical point of view, one has to ask the question of how journalism can be criticised at all when no criteria deriving from fields other than journalism itself can be applied. The answer that will be given below is easy: Valuable criticism has to be based on the very quality criteria journalism has set up for itself. Guidebooks for journalists at work may serve as a source for devising these criteria. As far as I know there exists only one meta study dealing with the quality criteria defined by German manuals on journalism. In this study Wallisch suggests to distinguish objective from subjective quality criteria. Formal principles and linguistic accuracy are considered as belonging to the first, „objective“ group, because they are intersubjectively valid „acquired patterns of journalistic action“ and at the same time „institutionally accepted and recognized beyond any doubt“. Such patterns can often be found in news spots and reports. According to the common view these journalistic forms first of all have to give answers to the so-called W-questions: Who? What? When? Where? By Which means? Why? Who said so? Topicality and relevance of an event are criteria for it being chosen as a news topic (Weischenberg 1990). Apart from that, the content of a news report has to be structured according to the principle of declining importance, and – if possible - it has to give complete facts of the event. Not only should a news report be structured adhering to

the principle of the declining importance of facts, it also should be placed in the paper according to its relevancy. According to Wallisch's (1995: 62, 109) results, the number of sources and the correctness of the facts mentioned also are important criteria of assessment in information journalism. Additionally, independent juries deciding on journalist awards usually put great emphasis on comprehensibility. To a remarkable extent, acquired journalistic patterns can also be found in commentaries. Journalistic practice expects the commentary to explain the chain of events by connecting it to a context. The commentary serves as a supplement for the news report, it should present answers to questions like: Why did something happen? Why did somebody do it? Where will this lead to? Is what happened good or bad? What kind of meaning has to be attached to it (Nowag/Schalkowski 1998: 43)? In order to answer these questions it is usually necessary to provide additional information that has not been mentioned in the news report itself. Therefore, the commentary always has to be the result of journalistic investigation.

All this leads to the natural question of when exactly one of the criteria mentioned has to be considered as fulfilled. Judgements cannot simply be based upon a reference value developed in advance, a value providing reliable information on what a well-made news report is or what it has to offer in order to be called complete. Due to the lack of such reference values, our assessments shall be based on – again I refer to a proposal by Gianluca Wallisch – the always disputable arguments of the critic. As a result, the information value of the criticism increases and decreases according to the quality of the critic's arguments. This method basically resembles the approach of literary scientists investigating the quality of literary texts.

In the following passage I shall set out to analyse the news coverage and commentaries on the four issues of the cloning of Dolly, the nitrofen scandal, BSE, and climate change as found in 11 local German newspapers. Analysis focuses on the science journalistic aspects of the four issues in question.

Dolly or „You never know what's going on in those labs“

Dolly's career in the media begins on February 20th, 1997. On this Thursday the journal "Nature", together with "Science" and "Cell" one of the most renowned specialist publications, sends its advance information on next week's issue to science journalists all over the world, marked with the usual embargo which in this case ends on February 27th, when the latest issue is to be published. The introductory text describes in short the result and concludes with the remark that this work bears far-reaching significance. Apart from that, journalists are given no further hints so as to evaluate the result. Suspecting towards the explosive nature of the event, the science

editors of the New York Times didn't expect the embargo to be obeyed. On Friday, after receiving the verbatim version of the text (which does not contain any hint towards the significance of the issue (Wilmut/Schnieke/McWhir et al 1997), they began preparations for a big story, ready for print as soon as others started spreading the news.

On Saturday, February 22nd, 1997, the „Observer“ appeared, making the clone-story lead headline. The large British newspapers follow suit on Sunday with title stories on the issue, namely the “Sunday Times” and the “Sunday Telegraph” (Wilkie/Graham 1998: 152). After the Observer's publication, the New York Times gives the story headline treatment in her Sunday issue. On Monday the story is once again on the first page of the Times, this time it is given even more space than on the previous day.

Following the publication in the Observer, the agencies start spreading the news all over the world. On Sunday it hits the desks of editorial offices in Germany. The first of the analysed newspapers – the Hellweger Anzeiger (HA) (circulation app. 20,000), the Berliner Zeitung (circulation app. 200,000), and the Westdeutsche Allgemeine Zeitung (WAZ) (circulation app. 600,000) – to publish the news is the HA. On Monday, the paper dedicates 20 lines on the miscellaneous page to the issue.

With the exception of the HA none of the papers whose coverage was analysed from 24/02/1997 to 15/03/1997 finds the scientific event „Dolly“ noteworthy. The news took the local papers by surprise. They were quite obviously overtaxed with assessing the meaning of the event, although the Observer, whom the wires referred to in their news spots, had given enough hints which could have made an evaluation of the issue a lot easier. Only on Wednesday does Dolly become a headline story. The peg is the response of the political system, namely that of then Federal Minister Rüttgers and the US-president, who seeks the advice of an expert commission. The concurrent decision of BERLINER ZEITUNG, WAZ and HA to put the political reaction on the front page leads to the conclusion that once an issue reaches the spheres of politics, certain journalistic selection routines get going. This result has been acknowledged by the British press: „The story had shifted from the abstruse, unfamiliar ground of developmental biology on to something very familiar indeed: international politics“ (Wilkie/Graham 1998: 154).

Now that the issue had been established as frontpage news, the three analysed newspapers react with great sensitivity on each event touching the clone issue, even if the news value is practically zero. Two events may serve as examples:

1. American Scientists manage to clone rhesus monkeys

The news value of this headline is extremely small: It was way back in the middle of

1996 when scientists first managed to do so. In terms of topicality it is therefore worthless. But what makes the “news” even more irrelevant is the fact that the monkeys were bred by means of embryo splitting, i. e. the scientists artificially divided the embryos. The potential of this method cannot be compared to the method of nucleus transfer. Considering the consequences, both methods have nothing to do with each other. One might just as well have reported on the experiments of Jerry Hall, who four years ago had tried to clone humans by applying that method (Bräutigam/Weymayr 1993: 13; Rademacher 1993: 12).

2. Humans cloned by stroke of luck: Belgium

Belgian reproduction physicians used a glass rod to roughen the protective hull of an artificially inseminated, deep-frozen embryo before the first cell division in order to increase chances of implanting the ovum. During the first division the embryo fell into two parts, what rarely occurs given this kind of pre-treatment. The result was a pair of identical twins. This event has nothing to do with Dolly, especially since it occurred several years before 1997.

The WAZ and the HA report on the successful cloning of rhesus monkeys², but neither paper bothers to explain the huge methodical difference between nucleus transfer and embryo splitting. The monkeys are clones, everything else seems to be secondary. On March 3rd, 1997, the HA makes the story the main headline and even dedicates the page two editorial to the issue.

The Berliner Zeitung deals in great detail with the „accidental“ cloning of a human being. The event is reported shortly on the miscellaneous page, the day after an article deals with the question of why this experiment bears not the slightest resemblance to the Dolly case.³ The HA reports extensively on the misc. page without mention of the differences.⁴ The WAZ refrains from reporting the „news“ at all.

Nevertheless, the coverage of both WAZ and HA is misleading and superficial in every respect. In the WAZ, the longest article on the Dolly issue mainly deals with the history leading to the creation of the clone sheep. The text states without any further explanation that Dolly is the „temporary climax“ of a development which started in the middle fifties with the deciphering of the genetic code. The author continues as follows:

² HA 03.03.1997, WAZ 03.03.1997.

³ Berliner Zeitung 11.03.1997.

⁴ HA 10.03.1997.

„At the beginning of the eighties the first genetically engineered drug (Insulin) is sold in the United States. Then comes the cancer medicine Interferon. In 1984, British scientists present an animal that is half sheep half goat. In 1988, the „cancer mouse“, whose genetic substance has been manipulated with a human cancer-producing gene, is patented in the U.S. In 1991, human genes are planted into cows, so that an antibiotic can be produced using their milk. And last year the Roslin Institute, the one that now made it to the headlines with Dolly, produced two identical twin sheep from embryonic tissue. On Wednesday, a New-Zealand-based institute introduced identical triplet sheep that were cloned from one embryo. The experiments do not spare humans: Four years ago a US-scientist succeeded in cloning a human embryo in the test tube.“⁵

The author continues by summarizing the respective opinions of the Federal Government, the Vatican, the Federal Physician's Association and the Farmer's Association on the cloning of humans and animals using the Dolly-method – without helping the reader so as to assess the statements.

Summing up, we can say that editorial offices have a tendency of printing events bearing no more than a remote connection to the original issue, without ever attempting to explain the context. In that respect, one might call the coverage “de-contextualized”. Only the Berliner Zeitung tries to avoid misunderstandings by explaining the relation between the different events.

The local papers also seem to have problems when it comes to dealing with details. In order to fully comprehend the consequences of the successful experiment it is indispensable to explain the originating method. All coverage avoiding explanation of nucleus transfer and cell fusion fails in giving valid information on possible or real consequences (transgene animals/humans, therapeutic cloning, organ breeding, breeding of rare animals) of the experiment. The BERLINER ZEITUNG and the HA – in one case – do feature articles on the issue that start off by explaining the

⁵ WAZ 27.02.1997.

method.⁶ The WAZ, however, falls short of printing even a single text that manages to give at least a superficial glimpse of the dimensions of the issue.

The fact that the WAZ does not even explain why Dolly was cloned at all might serve as just another proof for the lack of informational depth – a poor result considering that the WAZ has the largest circulation among local papers in Germany. Both HA and BERLINER ZEITUNG feature background articles informing their readers that the Scottish scientists with the cloning experiment wanted to find ways to produce transgene animals that might serve as deliverers of organs or pharmaceutical active agents.⁷ The WAZ again fails to deliver this piece of information which is absolutely essential if one wants to understand the motivation for the experiment.

In summary, one can say that – in contrary to the Berliner Zeitung – the coverage of HA and WAZ doesn't even come close to grasping the science journalistic meaning of the issue. To both papers, Dolly from the very beginning is nothing but a mere metaphor for concerning scientific developments. This interpretation shall find further proof when we take a look at the commentaries.

As already mentioned above, for assessment of an event it is usually necessary to provide additional information that is not given in the news spot itself. In this respect, the BERLINER ZEITUNG delivers much better quality than the other two papers. Looking at the amount of additional information provided in the commentaries, both HA and WAZ show a poor performance. In both papers, there is hardly a single paragraph in the commentaries supplying the reader with additional information.

Not only is supplementary information rarely given at all in HA and WAZ, when compared to the BERLINER ZEITUNG it also lacks substance considerably. For instance, the commentator in the HA informs his readers that the shares of biotech companies “went up”.⁸ This information might be called “supplementary”, but it is, unfortunately, wrong. In the beginning of 1997, not all biotech shares rose, only very few actually did. Looking at the WAZ, the additional information is similarly vague and incorrect. One comes to know, for instance, that cloning has been done „for decades“ in animal and plant breeding, albeit “not in such a perfect manner as it is

⁶ Berliner Zeitung 26.02.1997; HA 28.02.1997.

⁷ i.e.

⁸ Hellweger Anzeiger 05.03.1997.

performed today”.⁹ This does prove true for plant breeding, where cloning has been performed for centuries. But in animal breeding cloning didn’t start but during the late eighties, that is to say, about ten years – and not “decades” ago. The attributive “perfect” is not very well-chosen either: What does “perfect” really mean in this context? Perhaps effective or efficient?

The BERLINER ZEITUNG makes it sound different. Here, the commentary fulfills its task of categorizing and assessing the event. The author argues that the Scottish scientists will certainly not be awarded the Nobel price. She gives the following reasons:

„In principle, the technique the Scottish scientists applied has been known for years. Years ago it was used for duplication of amphibia. The cloning of sheep embryos also has been done successfully before. But even if the Scots won't get no scientific credit for their experiment, they will make a lot of money out of it: They have already applied for a patent for their method.”¹⁰

This paragraph – more examples could stand proof for my point here – shows clearly that the commentator of the BERLINER ZEITUNG – in contrary to her colleagues at the other two papers – is well-informed on the background of the experiment.

In their commentaries all newspapers express the opinion that the experiment someday will be carried out on humans. The view of the BERLINER ZEITUNG, however, is much more subtle. In two out of four commentaries it calls such experiments on humans merely “likely” and gives sound reasons for this assessment. The other two papers both lack this kind of reasoning. In one out of two commentaries the HA states that the human clone will one day become reality. There is only vague explanation for this assessment: Of course, policy makers could try to contain the powerful interests of the industry by setting internationally valid ethical standards, but:

„Those who are familiar with the ways of the world know

⁹ WAZ 01.03.1997.

¹⁰ Berliner Zeitung 26.02.1997.

that such efforts are usually hopeless.“¹¹

The WAZ likewise is convinced that the human clone will come into existence. Each of the four commentaries tries to assess the risks of cloned humans becoming reality. Two deem it likely, two others unavoidable. The paper refrains from explaining the reasons for these assessments. One commentator, for instance, is convinced that:

„The cloning of humans is prohibited for the time being. But whatever is technically feasible will someday be put into practice – with horrifying consequences.“¹²

The examples give proof of a partially strong distrust of scientific developments. Still, the arguments distrust is based on in the respective papers differ considerably. Whereas the BERLINER ZEITUNG tries to give information in order to justify distrust, the HA and the WAZ as well merely express a sense of powerlessness. For instance, referring to the dreaded duplication of man, the HA writes:

„It is not surprising that this event worries and frightens many people. Nobody knows what else is going on in those labs, what kind of experiments are being carried out, trying to do the work of Creation and thereby demonstrating its absurdity.“¹³

Phrases like these make science appear as a sort of supernatural demon, a conspiracy, an intransparent and therefore threatening system. In order to stress the emotionalized perception of the powerless individual, finding itself at the mercy of science, an uncontrollable and almost supernatural power, the WAZ – quite remarkably – choses a most adequate literary form. The paper writes a „letter“ to Aldous Huxley, living in heaven, and in the style of a prayer pleads for him to help, because he lives „in the right place“:

„Sir, don't let evil take its course. No mortal scientist shall

¹¹ Hellweger Anzeiger 26.02.1997.

¹² WAZ 26.03.1997

¹³ Hellweger Anzeiger 03.03.1997.

put his hands on the great scriptures and rewrite them according to his will, which might sound like this: In the beginning the earth was vast and empty, and man created a sheep named Dolly¹⁴

These two commentaries clearly illustrate the basic problem of the coverage on Dolly. Neither the HA nor the WAZ manage to present the cloning of Dolly as being the result of systematic scientific endeavours to produce transgene animals. The scientific core of an event that was met with considerable public response remains virtually unexplained. Not only is the coverage superficial, in large parts it is even misleading and confusing. One might assume that the reason lies not only in the lack of editorial resources but also the lack of science journalistic competence.

Nitrofen or the „Cancerous Poison“

On 24 May 2002 the Federal Ministry for Consumer Protection, Nutrition, and Agriculture (BMVEL) among others informed the press that organic foodstuffs contaminated with nitrofen had been sold on the market.¹⁵ In the beginning, it was not clear how the herbicide agent had gotten into the food. On 1 June 2002, the authorities published the result of their investigation: fodder grain in a silo in Malchin near Neubrandenburg had been contaminated with nitrofen. The silo had been used as a storehouse for herbicides in the former GDR and was therefore highly contaminated. The tenant, the „Norddeutsche Saat- und Pflanzgut AG“ had delivered organic grain to the fodder producer GS agri in Lower Saxony. Their fodder had then been sent to organic farmers all over the country, mainly to poultry farmers. Via animal feeding the agent eventually reached poultry meat and eggs.¹⁶ The issue gained high news value mainly due to the following characteristics:

1. The contaminated food was produced by the supposedly safe and trustworthy organic agriculture industry.
2. In May the nitrofen contamination had already been known for several months. Hipp, a manufacturer of infant foodstuffs had found nitrofen in poultry and

¹⁴ WAZ 08.03.1997

¹⁵ Press Release 159 of BMVEL. 24. Mai 2002: „Getreidebelastung schnellstmöglich aufklären“.

¹⁶ BMVEL (Ed.): Bilanzbericht zum „Nitrofen-Geschehen“ im Mai/Juni 2002 in Deutschland.

had sent the contaminated meat back to the producer „Grüne Wiese“ in Lower Saxony, a member of the „Naturland“ association. The producer sent samples of meat and fodder to the Federal Institute for Meat Research. The Institute found traces of nitrofen exceeding the permitted limit but did not inform other authorities or Federal Ministries, which lead to the assumption that there were gaps in the controlling system.

3. The reasons for the nitrofen contamination were unknown in the beginning which gave way to speculations and conspiracy theories (willful sabotage of the organic agriculture industry). Apart from that, new information continuously arose from the ongoing investigations of the authorities.
4. Nitrofen is hazardous to health and has been prohibited since 1988 in the former Federal States and 1990 in the new Federal States, respectively, on the grounds that the agent damages fertility and can cause cancer.

This short overview gives an impression of how manifold the issue is. It has a political, an economic, and a scientific dimension, the last mainly touching two questions: the evaluation of how dangerous the herbicide really is and how the poison got into the wheat. We shall analyse the methods and the quality of reporting in the *Weser-Kurier*, Bremen (circulation app. 200,000), the *Nordkurier*, Neubrandenburg (circulation app. 80,000), and the *Tagesspiegel*, Berlin (circulation app. 120,000). How do the papers explain the scientific dimension of the issue. Our attention shall hereby focus on the question of how the papers provide their readers with information on the effects the contamination may or may not have on their lives.

There is only a small database for estimating the carcinogenic or sterilizing effect of nitrofen on humans. The Federal Institute for Consumer Health Protection (BGVV) bases its evaluation on the results of two meetings of international experts, held in 1983, and on elder studies on rats and mice. On account of methodical deficiencies two among these are of limited value.

According to the research results, nitrofen is potentially hazardous mainly because it damages fertility. In several animal testings, rats and mice were given a relatively high dosage of nitrofen once, others were given several small dosages. In both cases, nitrofen had negative effects on fertility.¹⁷ The BGVV hence concluded that “especially the health of pregnant women is in danger when exposed to nitrofen.” Given the traces of nitrofen found in foodstuffs, a serious hazard to the health of pregnant

¹⁷ BGVV: Nitrofen in Lebensmitteln – Quantitative Bewertung des gesundheitlichen Risikos. Stellungnahme vom 03.Juni 2002., p.3.

women was at least likely. The institute therefore recommended “to make every conceivable effort in order to remove contaminated products ... from the market.”¹⁸ There is no firm knowledge, though, on the carcinogenic effects of the agent. In some – methodically questionable – animal testings the continuous feeding of high dosages was found to be carcinogenic. There are no results about the effects of smaller dosages. Hence, it is impossible to estimate the risk of cancer for humans getting in touch with nitrofen-contaminated food. The available data might lead to the weak suspicion that nitrofen might have carcinogenic effects on humans as well. But the institute very cautiously bases its recommendation on the danger for pregnant women and does not mention the risk of cancer. However, the institute takes it for granted that – if the recommended measures are taken – a possible risk of cancer would be reduced as well.¹⁹

The Nordkurier’s coverage of the science journalistic aspects of the nitrofen case is particularly disappointing. After analysing the complete coverage of the paper we found that out of 110 articles that were published on the issue until the middle of August, only one (!) deals with the health hazards of nitrofen-contaminated food-stuffs.²⁰ Other than that the Nordkurier almost exclusively concentrates on the political and economical aspects of the scandal, the first being clearly emphasized. The editorial staff of the Nordkurier doesn’t seem to realize that readers might want to know more about the actual danger nitrofen poisoning holds for them. In this regard, the articles repeatedly state the carcinogenic or supposedly carcinogenic effects of nitrofen. The more relevant information on the hazards to fertility is hardly mentioned at all.

The science journalistic core of the issue is ignored completely by the editorial staff, hence the coverage has to be criticised as superficial and incomplete. The Nordkurier refrains from stressing those very aspects of the scandal that are crucial in terms of decision-making and action-taking. German science reporting has had to deal with similar criticism before.²¹ The phenomenon could be described as a lack of competence in defining the real issue.

Basically, these arguments also hold true for the coverage of the Weser-Kurier. Similar to the Nordkurier, the paper features short information on the risk of cancer

¹⁸ i.e., p.6.

¹⁹ BGVV: Nitrofen in Lebensmitteln, a.a.O., S.5.

²⁰ Nordkurier N5, S.2.

²¹ Rager, Günther: Kommentar ohne Meinung. In: Journalist Nr.10, 1987, pp.36-38.

being “harmless” when compared to the hazards to fertility.²² But the information doesn’t keep the editors from repeatedly calling nitrofen a „cancerous poison“.²³ What is different from the Nordkurier though: the Weser Kurier dedicates several articles to the health hazards of nitrofen. All but one come to the conclusion that such a hazard doesn’t exist at all or only to a very limited extent. The only exception is an article found in the local-news section.²⁴

The article starts off with the fact that contaminated meat has been sold to day nurseries in Bremen. It remains unclear to what extent the meat had been contaminated. Referring to one single source the author states that the consumption of this meat “does not bear any relevant health hazards”. The second part of the article comes with more enlightening information: It is explained that given the highest contamination measured so far – 0,26mg/kg –, even the consumption of half an egg might put a pregnant woman at risk. This comparison is confusing considering the fact that contaminated meat and not eggs were eaten in the nursery – by children and not by pregnant women. Still this article in the local-news section hints towards the science journalistic dimension of the issue: The hazard for pregnant women eating contaminated eggs is not easily calculable scientifically, because in animal testings even a single dose had harmful effects on fertility. A fact the paper doesn’t mention. The Weser-Kurier is not capable of presenting the existing risk assessment adequately, although it is of great importance for the case described in the article. This becomes particularly obvious towards the end when the author states that scientists have different views when it comes to evaluating the hazardous potential of nitrofen. Some deem a security distance of 100 to the limit value to be enough, others say the limit should lie 1000 times below the dosage that has no more effects on animals in testings. Summing up, the author goes on: the „real risk“ was „something in between“, he concludes.

The coverage of the Tagesspiegel is completely different: shortly after the nitrofen contamination became known to the public, the paper only needed one article to inform its readers on the health hazards of the agent as described by scientists.²⁵ Additionally, the paper explains to its readers the different methods of calculating limit values. This article may serve as a positive example, as does an article published

²² Weser Kurier 28.05.2002, p.3

²³ Weser Kurier 31.05.2002, p.1; 04.06.2002, p.1; 08.06.2002,p.24; 21.06.2002, p.18.

²⁴ Weser Kurier 05.05.2002, p.13.

²⁵ Tagesspiegel „Nitrofen, wie groß ist die Gefahr?, 29.05.2002.

one week later, relativizing the danger of getting cancer from nitrofen contaminated food.²⁶ With only a few reservations, the praise can be extended to the whole coverage of the Tagesspiegel on the issue. The authors take a great deal of investigative efforts, describe many dimensions of the issue, mention numerous sources, choose different journalistic forms, and the paper dispatches several reporters in order to deal with the issue. The reservations mentioned above refer to the treatment of the risk of cancer, which repeatedly becomes the focus in spite of the Tagesspiegel's coverage, and the treatment of measurements and limit values.

Neither the Tagesspiegel nor the local papers ever inform their readers on the true extent of the nitrofen contamination. All papers, especially the Tagesspiegel, draw back to unspecific adjectives like „contaminated“ or „polluted“, sometimes even more emotional words like „poisoned“.

Apart from the two articles in the science section mentioned above, only three articles in the Tagesspiegel deal concretely with results of measurements. For instance, it is stated that the nitrofen traces found in foodstuffs are 3 to 18 times less than the limit value.²⁷ It does not really matter in this context that the paper refrains from mentioning absolute numbers. What does matter though is that the numbers are never explained. The Nordkurier uses a similar method: In four articles measurements and limit values are treated as secondary. Once it is said that the limit has been exceeded 18 times²⁸, one day later one reads about 64 times²⁹ and – in the same issue – 250 times are mentioned.³⁰ Nowhere is it made clear, what exactly was measured when and where, therefore the discrepancies are confusing. It would have been imperative to explain the measurements by delivering supplementary information on the interpretation of limit values.

Whenever exact measured values are mentioned they usually refer to dosages that have never before been consumed by neither humans nor animals. However, these values are put into relation with limit values for foodstuffs. For instance, the Tagesspiegel sets off to compare nitrofen traces found in fodder grain (15,9 mg/kg) and in the dust in the Malchin silo (2000mg/kg) with the permitted limit value for foodstuffs (0,01mg/kg). The paper even miscalculates the dust value and states that the measured value lies 2000 times above the limit value for foodstuffs, although it

²⁶ Tagesspiegel „Pflanze als Chemiefabrik, 5.06.2003

²⁷ Tagesspiegel: „Gift auch in Biofleisch“, 30.05.2002.

²⁸ Nordkurier N9.

²⁹ Nordkurier N12.

³⁰ Nordkurier N14.

really is 200,000 times higher than the limit.³¹ The Nordkurier also mentions this value. We then learn that the limit value is 0,01 milligrams.³² But in contrary to the Tagesspiegel, the Nordkurier does not inform its readers that this value refers to the traces found in foodstuffs. A similar example was found in the Weser-Kurier: The paper publishes the contamination value of the silo's floor, which is 77,9 g/kg, and then goes on contrasting this measurement with the limit value for foodstuffs.³³ The way measured values are dealt with has to be called „emotionalized“, to say the least. The comparisons mentioned above in combination with emotional adjectives result in a description that exaggerates the threat.

One of the main shortcomings of the coverage in Nordkurier and Weser-Kurier is their inability to even grasp the most important science journalistic dimension of the issue, namely the threat to the consumer. The Tagesspiegel, on the other hand, does analyse this dimension in an exemplary manner in its science section. But when it comes to dealing with measured values, the paper fails just as well: The threat is mostly emotionalized by choosing only certain measured values and combining them with unspecific adjectives like “contaminated” or “polluted”, whose meaning is not at all supported by the concrete measurements.

As already mentioned above, the science journalistic dimension of the nitrofen issue mainly consists in assessing the threat to the consumer. The question of how the poison got into the wheat in the first place is also worth investigating. The fact that only two commentaries deal with these science journalistic aspects underlines the findings of the coverage analysis: Nordkurier and Weser-Kurier remain confined to the notion of a “political scandal”, their science journalistic view on the event is very limited. A phrase found in the Weser-Kurier may stress the argument:

„Nitrofen is carcinogenic, even the smallest amount is too much. Especially for children and pregnant women.“³⁴

That's it. Seen from this narrow-minded view all controversy about animal-testing, limit values or even probabilities must seem absolutely useless. Which is highly

³¹Tagesspiegel: 02.06.2002 Bioweizen im Giftlager 03.06.2002 Gift im Staub.

³²Nordkurier N19.

³³Weser-Kurier 11.06.2002

³⁴Weser Kurier 31.05.2002, p.2

problematic since amounts certainly do matter. If consumed in high dosages even common salt can cause cancer.

The commentaries mentioned were found in the Nordkurier and in the Tagesspiegel. The Nordkurier in the beginning of the scandal made do without leading any investigations on its own and confined itself to commenting on the issue. The commentator put the blame on the organic agriculture industry:

„The cancerous herbicide (...) still poisons the soil of the Uckermark, where now the fodder wheat for organic poultry farms from all over Germany grew. That’s how the poison got into eggs labelled ‚organic‘. To regain consumer confidence the organic farming industry has to set much higher standards for its products.“³⁵

Hans Mathias Enzensberger once surmised in an essay that - against the assumption of journalists - most people don’t believe what is written in the papers.³⁶ One might be tempted to utter: Thank God!

Both linguistically („*now* the fodder wheat ... *grew*“) and in terms of content this commentary is nothing less than a journalistic faux pas. The author formulates a demand that is based on entirely false information. A day later, a second commentary is printed, presumably to make up for the damage done. Here, the commentator states that „mere suspicion won’t do any good“ and continues by asking: „How could a herbicide that was prohibited years ago get into the wheat?“³⁷ The paper seems to be commenting on itself.

The Tagesspiegel prints a guest commentary which – unknowingly – explains why the Nordkurier was wrong (Nitrofen in the soil decays within a short period of time). Apart from that the article gives further information on the poisonous agent and explains why the authorities in charge ought to have been alarmed.³⁸ The commentary features plenty of supplementary information and therefore successfully contributes to the process of opinion forming on the side of the recipients.

³⁵ Nordkurier N1.

³⁶ Enzensberger, Hans Magnus: Das digitale Evangelium. In: Der Spiegel Nr.2, 2000, p.101.

³⁷ Nordkurier N3.

³⁸ Tagesspiegel 29.05.2002 „Flüchtig und überall“.

To sum up, the analysis of the articles in the Nordkurier and the Weser-Kurier leads to the conclusion that the respective editorial staffs have not understood the science journalistic dimension of the issue. In the few obvious events, like the case of the Bremen day nurseries, it is presented unsatisfactory. Whereas the Tagesspiegel stands out for its creative approaches to tackle the issue from different perspectives, the others one-dimensionally stick to reporting on a „political scandal“, leaving no or not enough space for the scientific aspects of the issue. As a result, the readers of these papers are never fully informed.

BSE or „Researchers Groping About in the Dark“³⁹

On 24 November 2000, German beefeaters all of a sudden found themselves exposed to a threat that so far hadn't existed in their heads, at least as long as they abstained from eating beef imported from Great Britain. That day, a German-born cow was tested BSE-positive. This result was to conquer the headlines for the two months to come and lead to the collapse of the beef market, especially when more and more new BSE-cases came to light after tests were conducted more frequently. Until the end of March 2001, 50 new cases had been made public.

The extraordinary news value of this event is mainly on account of two features which in 1990 and 1996/97 also made the issue frontpage news, amongst others in Germany and Great Britain:⁴⁰

1. Since few is known on the way the disease is communicated, there is an uncalculable risk that consumption of infected beef products might trigger the new variant of Creutzfeld-Jakob disease (nvCJD). As examples from Great Britain have shown, the disease develops in a terrible way, with all patients dying in the end.
2. The political rhetoric of German meat being safe on the grounds that German products were BSE-free proved sadly wrong. The public no longer trusted in announcements and measures of governmental authorities. In other words: The event accelerated public loss of confidence into the state's controlling and

³⁹ Ostseezeitung O6.

⁴⁰ Kitzinger, Jenny; Reilly, Jacquie: The Rise and Fall of Risk Reporting, a.a.O., p.338. und Vgl.: Jasanoff, Sheila: Civilization and madness: the great BSE scare of 1996. In: Public Understanding of Science, Vol. 6, 1997, p. 221.

regulative power. Governmental action was suspected of being influenced by the interests of lobby groups.

In the following part, we shall analyse the coverage of the *Ostseezeitung*, Rostock, and the *Westfalenpost*, Hagen, during the first week after the case became known to the public. We shall focus on the question of whether the papers succeed in conveying information on scientific findings, hereby enabling their readers to categorize and assess the flow of events, for instance concerning protective measures to be taken. Particularly interesting in this context are the findings on the reasons for the spreading of the disease. Apart from that, it is interesting to analyse if and how the readers are given recommendations concerning their consumption habits. Do the newspapers within a short timespan manage to present the latest scientific findings in BSE-research correctly? That's the question we want to deal with.

The following qualified analysis is based on 68 articles that were published in the *Ostseezeitung* (20) and the *Westfalenpost* (48) during the first week following the announcement of the first BSE-case in Germany. The analysis of the *Westfalenpost* also takes into account articles printed in the local-news section, which explains the larger number of texts from this paper.

The question of how the disease is communicated has to be considered a crucial science journalistic aspect of the issue. Both newspapers only provide very superficial and incomplete answers to that question. The *Ostseezeitung* and the *Westfalenpost* report repeatedly that the feeding of animal meal is considered as causing the disease. It is also mentioned that a prohibition of animal meal feeding has long been in the pipeline. Neither paper makes it clear, though, that the feeding of animal meal to cattle has been forbidden since 1994. Further on it is stated that the cow affected was never fed animal meal. In contrary to the *Westfalenpost*, the *Ostseezeitung* in an interview explains that a total prohibition of animal meal feeding would make sense, because otherwise cross contaminations might occur. One could not exclude the danger of animal meal meant for pig feeding getting mixed up with cattle fodder in the mills.⁴¹

The local newspaper does not manage to explain the connection between the planned prohibition of animal meal and the fragmentary knowledge on the communication of the disease. Looking at the information scattered throughout the article, the reader has no way of understanding why a prohibition of animal meal feeding should be necessary at all. What supposedly triggered BSE – and what the readers

⁴¹ *Ostseezeitung* O12.

aren't told here – was the fact that in the beginning of the 80s, the processing temperature for animal meal was reduced to 70° Celsius. It was widely assumed that with processing at a rather low temperature the BSE pathogen was no longer killed. When the animal meal was fed to cattle, the disease started spreading rapidly. From 1985 to 2000, 180,000 pieces of cattle in Great Britain caught the disease. After the feeding of animal meal was prohibited in the middle and late 80s, the number of infected cows decreased visibly, a fact supporting the hypothesis. On the other hand, it is also possible that not every case of BSE can be explained by the animal meal theory. Repeatedly – in the German BSE-cases as well – did animals catch the disease that at least officially hadn't been fed with animal meal. These cases were generally explained by cross contaminations.

The newspapers do not offer any such explanations. The demand for a prohibition of animal meal feeding is not analysed from a science journalistic perspective, and therefore it is never made clear why such a prohibition should make sense. Apart from that, the science journalistic perspective might have enabled the authors to talk about shortcomings and mistakes of BSE research or substantially criticise government action. The problem of cross contamination had been known for a while already in Great Britain, which brings up the question of why feeding had not earlier been prohibited completely.

Both papers fall short of explaining plausibly why conducting BSE tests on animals for slaughter does not always make sense. The incubation period of BSE amounts to several years (as far as I know, no exact timespan is known yet). Two articles of the *Ostseezeitung* mention the fact that regular BSE-tests turn out a positive result only six months prior to outbreak of the disease.⁴² The *Westfalenpost* does not give its readers this information at all. That way it remains obscure why the tests are not 100 % reliable. This is because sometimes cattle that hasn't been tested BSE-positive yet, can already be infectious.

The *Ostseezeitung* features the information on BSE-tests, but on the other hand doesn't hesitate to unthinkingly publish the propaganda of two meat producers, saying that beef stemming from cattle younger than 30 months is safe for consumption. The reason given sounds as follows:

„Til today, only cattle older than 30 months have been tested BSE-positive.“⁴³

⁴² *Ostseezeitung* O2 und O4.

⁴³ *Ostseezeitung* O14.

Compared to this statement, the reader of the *Westfalenpost* is better-informed. He learns from the butchers Mr. and Mrs. Neise that in England, a cow that was only 20 months old was tested positive.⁴⁴ Only those who read the article in the local-news section of *Meschede* are therefore enabled to understand why the Minister for the Environment of Northrhine-Westphalia insisted on testing animals that were only 20 months old.⁴⁵

The examples of informers quoted – the married couple from *Freienohl* and the meat producers – show a characteristic trait of local news coverage, and at the same time shed a dim light on the investigation methods of both papers. The information provided by whatever sources is published without double-checking, even if the expertise of the sources is obviously non-existent. The *Westfalenpost* offers a forum for butchers and farmers to spread their concerning messages, without ever checking on the validity. Both papers gather information on scientific aspects of the issue from dubious sources. Referring to statements of pig breeders, for instance, it is said that BSE cannot be communicated to pigs.⁴⁶

The *Westfalenpost* regularly quotes farmers or butchers explaining matters that are beyond their professional experience. „Nowhere else are controls as strict as in Germany“, says a butcher, adding that today’s scientific research on BSE equals “fishing in troubled waters”.⁴⁷ It seems as if the journalists deliberately choose these sources so as to put the blame on them, should the information given be incorrect. But of course a journalist can’t do so if the source itself is dubious. Unfortunately, in the local-news section of the *Westfalenpost* the sources never seem to be reliable. Not one of the articles that appeared in the local section bothers to quote a scientific source.

From a science journalistic point of view, the impact of BSE issue remains obscure in the coverage of the *Westfalenpost*, and this is mainly due to poor investigating. The case lies similar with the *Ostseezeitung*, however, a few scattered examples do give proof of a more science journalistic approach. For instance, in an article at least partially based on self-conducted investigation the paper – referring to scientific

⁴⁴ *Westfalenpost* W47.

⁴⁵ *Westfalenpost* W2.

⁴⁶ *Ostseezeitung* O8.

⁴⁷ *Westfalenpost* W16.

sources – deals with the possibility that apart from animal meal there might be other sources of infection.

(...) Animal meal used to be considered the main source of infection. But scientists today assume that there are different sources. The Swiss BSE-expert Dagmar Heim holds the opinion that the disease might be given to the calf by its mother. According to other experts, even an infection via the blood cannot be excluded. Suet and gelatine are possible sources of infection as well. Leipzig-based veterinary Ernst Lücker goes so far as to suspect pigs, poultry or fish of being able to pass the BSE-pathogen on to humans. He published a study furnishing proof of the fact that sausage contains cerebral tissue. It was found that over 100 sausage products contained intestines, cerebral and nerve tissue not only from pigs but also from cattle.

It is worth criticising that the statements are given without providing a scientifically sound fundament. The studies on which the scientists base their opinions are given no further attention. This way of dealing with scientific results is typical of the few examples quoting scientific sources. Never are the scientists asked for further explanation: Why exactly do they know what they claim to know?

Just as the nitrofen case, BSE is just another food scandal the analysed newspapers do not manage to tackle satisfactorily. And, like the issue of climate change, the BSE case gives sad proof of the fact that political decision-making is often based on more or less incomplete knowledge. The analysed papers fail to discover the existing gaps in research. They don't even manage to explain clearly the kind of knowledge that political decisions like the prohibition of animal meal feeding or the introduction of quick tests are based on. As a result, the reasonability – or the irrationality – of political action remains a mystery. The reader is left incapable to make up his own mind. He is informed on what the politicians do, but then again, he never learns the reasons for their actions. He is told that he ought to or ought not to abstain from eating beef. But the reasons are never adequately explained.

Climate change or: „Perfect Confusion“⁴⁸

⁴⁸ Berliner Kurier 24.02.2002.

Since it was discovered in the eighties, the anthropogenic climate change is brought to the notice of the general public whenever the weather seems to be going crazy. No matter if hot summers, mild winters, heavy rainfall and floods, extraordinarily heavy storms – such events usually bring climatologists on the scene. They give more or less careful assessments on the connection between climate change and temporary weather phenomena, willingly predicting the future development of the weather situation and at the same time asking politicians to take appropriate measures that might stop the anthropogenic climate change. For instance, they ask for the reduction of CO₂ emissions by promoting nuclear energy on a massive scale (a demand frequently expressed in the 80s) or for support of regenerative energies. The phenomenon was particularly prominent in middle-eighties Germany. Scientists of that time came up with horrifying predictions. In August 1986, the infamous cover of the “Spiegel” showing the Dome of Cologne sinking in a flood became known as the „icon of climate change“. The magazine based its reporting on a prediction made by the “Deutsche Physikalische Gesellschaft” (German Physics’ Association), saying that the sea levels might expect a rise of five to ten meters. Scientifically, there was still a lot of uncertainty surrounding the prediction, but the “Spiegel” deliberately downplayed possible objections and focused on the drama that might follow a dramatic rise of sea levels.⁴⁹

The scientific predictions found in the coverage of the Rhein-Zeitung, Koblenz (print and online issues), the Lüneburger Landeszeitung and Berliner Kurier in the year 2002 seem comparatively harmless. The expected rise of sea levels is no longer measured in meters but in centimeters. A rise of 11 to 88 centimeters in the coming 100 years is now mentioned,⁵⁰ heavy hail and rain showers are expected,⁵¹ tornados are to wreak havoc more frequently.⁵² The pattern of this kind of coverage, however, remains the same. Extreme weather situations like the flood at the Elbe river, the storm over Berlin and Brandenburg trigger extensive reporting. Scientific aspects of the issue frequently become a focus of discussion.

The differences between the forecasts of the eighties and the 2000s show the hypothetical character of this special field of scientific research. Depending on the respective prognosis - it might take a hundred years or more to verify whether the

⁴⁹ Weingart, Peter: Die Stunde der Wahrheit? Zum Verhältnis der Wissenschaft zu Politik, Wirtschaft und Medien in der Wissensgesellschaft, Weilerswist 2001, p.272.

⁵⁰ Berliner Kurier 26.05.2002.

⁵¹ Landeszeitung Lüneburg 18.09.2002.

⁵² Rheinzeitung, Koblenz 13.08.2002.

scientists' assumptions were right. All coverage claiming to be thorough should therefore try to explain the methods that predictions are based on. All predictions on the future lead to one natural question: Which sources led to such a prognosis? It is also interesting to investigate whether the disaster scenarios of the 80s, differing considerably from what is foreseen nowadays, had any effect on the credibility of scientists. It would definitely suffer if ever someone contrasted current with former statements.

In the papers analysed here, the issue was not only dealt with in connection with weather situations. Political events also give reason to deal with climate change as a source of dispute, mostly without providing further specialized information on the subject.

The following analysis focuses on the climate change as a main subject, and does not deal with coverage mentioning the issue as mere side-aspect. We want to find out if and how newspapers succeed in presenting this issue as one causing plenty of controversy in scientific research efforts. For more than ten years climate research has been institutionalized, but even today its most important hypothesis – that of humans influencing the development of climate – causes a lot of controversy, which has not yet been solved within the scientific community. In fact, climatologists claiming there is a connection between the emission of hothouse gases and global warming have gained upperhand. But there still are many scientists objecting the notion of climate development being initially influenced by human behavior.

Not one out of the 13 analysed articles succeeds in presenting climatology as a controversial scientific field. The flood and the storm over Berlin are interpreted as *barbingers* of anthropogenic climate change. Two scientists even call the unusual weather situation a *consequence* of global warming and the hothouse effect, respectively:

The climate disaster has come

(...) „There is no doubt. What we witness today are the first consequences of global warming“, says climatologist Wolfgang Seiler. „And the consequences are much more dreadful than we expected.“ (...)

Rheinzeitung Koblenz, 13-08-2002

The author, who made investigations about the issue himself, holds the opinion that the “climate disaster” has come, although towards the end of the article he quotes

the Minister for the Environment, Jürgen Trittin, as saying that there is no proof for such an assumption.

The scientist quoted in the article explains his opinion with the increase in extraordinary weather situations. Rain that formerly took several months to fall down nowadays came down within a few weeks. These findings, however, do not sufficiently prove the asserted connection. Yet another climatologist claims that there is a relation between temperature development and the current weather, the last being influenced by global warming and especially the average warming in Germany which to his opinion amounts to 0.9° Celsius.

The difficulties in evaluating weather events and the problems of scientific argumentation in this field become obvious almost unintentionally in the articles. But still the editors don't feel inclined to engage into further investigation about the contradictions. On the contrary, everybody seems to be relieved to distill a somewhat new message out of the statements: „The climate disaster has come“. Eventually – one might be tempted to add. The headline sounds like a cry of relief.

This example is typical of all articles dealing with the assessment of the current weather situation. The climatologists' assertions and predictions are presented uncritically. Without exception the scientists quoted support the notion of an anthropogenic climate change. Only very few authors bother to give details on the methods leading to the assumptions. Only one article casually mentions that the scientists' views are based on the results of computer simulation.⁵³ Neither are editorial staffs interested in the disaster scenarios of the past – which might have helped to weaken the validity of the predictions – nor do they care about the improved calculating capacities of modern computers – which might be a good reason to consider current predictions more trustworthy than older ones. The coverage on unusual weather situations quite listlessly sticks to supporting what presumably is already known and adds a few more or less frightening predictions, most of them already well-known due to the striking redundancies in reporting on the issue. Investigations are not made at all. As was the case with BSE, scientific results and predictions are never questioned, although past experience ought to have taught journalists differently. Even in the year 2002, it seems like the analysed newspapers have never even heard of the notion of journalism trying to gather information from various sources and then giving a correct and complete account of the state of affairs.

The criticism not only holds true in the case of the weather going crazy. Whereas news about storms make the climatologists step out, beautiful weather inspires the

⁵³ Rheinzeitung online 14.08.2002.

sceptics to go public. No matter what the weather is like, scientists can always hope to see their messages printed uncritically.

Climate change not influenced by humans

... (Geology Professor) Neumann-Mahlkau has serious doubts that the proportion of CO₂ in the atmosphere influences the global average temperature. (...) Even during the ice age 225 million years ago the proportion of CO₂ had been 1.5 percent higher than today, the scientist says. He continues: „During three billion years of climate history there have always been variations – without any human interference.“

Rheinzeitung Koblenz, 11-03-2002

Looking at the coverage of the three newspapers in the year 2002, there are only two examples where the issue of climate change is presented as a field of research bearing many uncertainties and difficulties. The articles show that the issue is a subject of scientific research efforts, and that there are no facts known so far that might call for clear and defined measures like, for instance, the promotion of regenerative energies. Nevertheless, even these two examples deserve some criticism. They were published in the *Berliner Kurier*, a local tabloid published in Berlin. An article on the issue „air“ comes to the conclusion that climatologists have no exact theory on the reasons for climate change.⁵⁴

To sum up, the analysis has made clear that the readers of the above-mentioned papers, if at all, are never sufficiently informed on the issue. The editorial staffs merely serve as a “transmission belt” for the messages of climatologists asserting a human influence on climate change, and – to a lesser extent – of those denying such an influence. Unusual weather events like storms make journalists reproduce a certain pattern of reporting: They make do with filling in the „form for climate change” by simply entering the current predictions and the renewed demands of scientists for political actions.

Conclusion

⁵⁴ *Berliner Kurier* 25.05.2002.

Our analysis of the science journalistic reporting on four issues has made partially considerable deficiencies evident. These deficiencies refer to the information depth of the coverage, the ability to comment on and to investigate into events. Regarding the extent of shortcomings, the texts differ considerably. Especially two among the three newspapers from Berlin yielded much better results in terms of quality.

The other papers usually don't succeed in competently explaining events from a science *journalistic* point of view. The papers seem incapable of taking such an approach, which is particularly problematic considering the many dimensions that have to be taken into account when dealing with one of the complicated issues mentioned above. This limited ability of tackling the issues is probably due to the lack of science journalistic competence in editorial staffs. Local newspapers should therefore turn to strengthening science journalistic competence in order to improve their reporting. Considering the redundancies in our findings there is no point in hoping that the incapability of tackling scientific dimensions of issues is limited to the examples analysed in this paper. On the contrary, it is very likely that local newspapers as a rule have big difficulties in dealing with similar thematical dimensions.

What makes the two Berlin-based newspapers outstanding is, firstly, the more sophisticated treatment of issues. And secondly, science for both papers is no longer something to be seen separate from the political or the economical system. Science for them is not a source guaranteeing certainty but something that has to be questioned as well. When the Berliner Zeitung informs its readers on the economic background of the Dolly experiment, it uncovers the ties between economy and science, hereby showing that the quest for truth is not the only driving force of scientific progress but that profit interests also play a role. Here an interesting characteristic of science becomes visible: its partial loss of social detachment.⁵⁵ The other two papers do not only cover up this trait of science, their coverage even widens the distance between science and other partial systems of society. Science is depicted as a kind of supernatural force, in the case of Dolly even bearing demonical features.

By explaining how limit values come into being – Ulrich Beck in a polemic once compared the process to playing a lottery: „mark a cross and wait“⁵⁶ – the Tagesspiegel gives his readers a glimpse as to the limits of certainty. Introducing the methodical difficulties the paper points out the fact that the production of truths has to come up against limiting factors – a fact that is usually not mentioned at all. To most newspapers, the seal “scientific” suffices to prove a result trustworthy. Never are

⁵⁵ Weingart, Peter: Die Stunde der Wahrheit... , S.29ff.

⁵⁶ Beck Ulrich: Risikogesellschaft. Auf dem Weg in eine andere Moderne, Frankfurt a.M. 1987, p.91.

scientific results put under scrutiny, never do scientists have to justify their opinions, the social detachedness of science remains untouched. What has been proven “scientifically” is automatically trustworthy, seems to be the conviction of all local papers. Their approach to science is similar to that of an amateur. The editors cultivate a distance to science, because its partial loss could be considered as characteristic of the “scientification” of society. They want to see science in the ivory tower it has left long ago.

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