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Food Crises and The Political Economy of the Media

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Abstract:

The objective of our paper is to contribute to this understanding by presenting a conceptual model of the information supply and comparing it with empirical observations on media reporting on two recent food safety crises. Our paper starts with an analysis of the organization and incentives of the media industry, looking at both supply and demand factors, and discusses a set of general hypothesis on the characteristics of information provided by the media industry. This section relies heavily upon a formal model of the information market developed in Swinnen and McCluskey (2002). The second part of the paper is empirical. We compare the hypotheses with media reporting on two recent food safety crises in Western Europe: the 1999 dioxin crisis which originated in Belgium, and the 2001 foot-and-mouth disease which originated in the UK.

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1. Introduction

“The ... press appears to me to have passions and instincts of its own. ... In America as in France it constitutes a singular power, so strangely composed of mingled good and evil that liberty could not live without it, and public order can hardly be maintained against it.”

Alexis de Tocqueville, 1835 ¹

Information is an important factor in economics and politics. In poor countries lack of information on crop prices and market developments cause imperfect investment and factor allocations by farmers in rural areas, but also in Wall Street information imperfections affect investment and capital flows. Politicians across the globe try to control information. These days, the most important ally of governments is no longer the police or the military, but the media, and the prime target of political organization is control over the media.²

While the quantity and quality of information has increased tremendously over the past decades, information imperfections are still widespread. Even when households are flooded with information through dozens of TV channels, plenty of newspapers, journals, radio, etc. the public is said to be poorly informed when consumption declines dramatically following media reports on food contamination, or when European consumers oppose the introduction of genetically modified organisms (GMOs) in their food, despite scientists and official institutions claiming those products are safe.

There is an extensive literature on imperfect information, its contributions to market imperfections, and its implications for economic activities and welfare (see e.g. Stiglitz, 1993). For some problems governments are typically advised to invest to improving the quantity and quality of information to reduce the imperfections and the associated problems. For example, many agricultural and rural development programs in developing and transition economies include government strategies to invest or support ‘market information systems’.

¹ A. De Tocqueville, 1853, *Democracy in America*, reprinted in Vintage Classics Edition (Vol. 1) 1990, p.185

² For example: “The most important single pillar of Slobodan Milosevic’s power throughout the 1990s was state-run television, with its insidious diet of nationalist lies and regime propaganda. ... The crucial moments of the Serbian revolution to overthrow Mr. Milosevic were also televisual. First the storming of the Belgrade Parliament, seen via satellite on CNN, BBC and Sky and on embattled semi-independent provincial channels in Serbia itself. Second, the storming of the headquarters of state television, revealingly known as TV Bastille, and the subsequent appearance of the new president, Vojislav Kostunica, on that channel. Those were the two moments that told everybody it was over, even though all the traditional organs of power were still formally (and many so also very practically) in hands of Mr. Milosevic. It had happened on television, so it had happened. Television made it true.” (Timothy Garton Ash 2000)

However in reality, most information which affects agents both in their economic and political activities is not provided by organizations and institutions whose objective is to foster the public good, but instead by private, often commercial, organizations. Moreover their influence is growing. This is well illustrated by the following quote from Ash (2000)³: “*Al Gore initially conceded defeat to George W. Bush early on the morning of Nov. 8 after Fox TV, closely followed by other networks, had declared Mr. Bush to be ... the next president of the United States. Television said it, so it must be true. Who was Mr. Gore, merely the vice president, to argue with television?*”

While in the USA TV and newspapers have always been largely in the hands of commercial companies, the emergence of private companies as the dominant source of information is newer in Europe. Not only were TV and radio broadcasting until recently largely in the hands of state broadcasting companies, even companies publishing daily newspapers and popular journals were often closely aligned with political parties.

The European media structure has changed dramatically over the last decades. Technological innovations and globalization stimulated the emergence of commercial TV stations. At the same time social change weakened the traditional link of political parties and their voters and simple ideology as a base for newspaper choice. Commercial TV and radio stations are now typically the dominant channels of information distribution across Europe.⁴ The written press has gradually devolved itself of the patronage of the political parties, and becomes more driven by commercial than political objectives.

However, not only private but also public sources of information may have an internal source of information bias because administrators and governments may have political incentives to influence the information provided by these public institutions. After all, who would consider the *Pravda*, the ultimate example of a government controlled and state-owned information channel as it existed in the Soviet Union, as a source of unbiased information?

It is clear that all this has major implications for the information available for consumers, companies, politicians, voters, etc. and hence for the functioning of the economy and the political system of a society. If media organizations that have an incentive system driven by internal political or commercial objectives are the main sources of information, why should anyone expect that information which is distributed by these organizations to be unbiased? Instead, given these incentive systems, one should be surprised if the information provided were unbiased and complete.

A remarkable observation is, given the well-recognized importance of information in economics, that little attention has been paid so far to the internal dynamics of information supply, and to how the industrial organization of the media industry affects the quantity and quality of information supply. Some recent studies have emerged on this issue, analyzing the

³ Ash, T. G., “Winner in a Long-Running Soap Opera: The Television Camera”, *International Herald Tribune*, November 29, 2000

⁴ Commercial media companies cover an increasing area of information. For example, in the summer of 2000 British commercial newspapers started publishing list of presumed child molesters, thereby moving into providing information in the field of justice, a typical public domain. While the strong public reactions to this publication forced the newspapers to reverse their decisions, the issue remains very important since it has vast implications for society.

impact of media structures and ownership on information distribution and economic welfare (Besley and Burgess, 2001; Besley and Prat, 2002; Djankov et al., 2001).

The objective of our paper is to contribute to this understanding by presenting a conceptual model of the information supply and comparing it with empirical observations on media reporting on two recent food safety crises. Our paper starts with an analysis of the organization and incentives of the media industry, looking at both supply and demand factors, and discusses a set of general hypothesis on the characteristics of information provided by the media industry. This section relies heavily upon a formal model of the information market developed in Swinnen and McCluskey (2002). The second part of the paper is empirical. We compare the hypotheses with media reporting on two recent food safety crises in Western Europe: the 1999 dioxin crisis which originated in Belgium, and the 2001 foot-and-mouth disease which originated in the UK.

2. The Political Economy of the Media

2.1 The Conceptual Model

The basic idea is to develop a model of the demand and supply of information. We analyze which characteristics of a potential news item determine whether it is distributed by commercial media organizations, and the amount of attention it receives. A formal model is developed in Swinnen and McCluskey (2002) and the discussion here summarizes some of the key insights.

Define the products in the media market to be a “news report” and “a story”. In this paper we focus on news and information, and do not consider media organizations which produce movies, etc. Each media organization produces a “news report” (which can be a TV news, a newspaper, a weekly magazine...). The news report is a set of “stories”. The organization has to decide each time it produces a news report which stories will be selected for inclusion in the news report, how much of it, on the front page or not, with pictures or not, etc...

To start, let us make some simplifying assumptions, some of which will be relaxed further. We focus on the choice of the stories as a 0-1 issue: whether it will be included yes or no, and we assume that the organization has a large supply of stories to choose from.

The choice of the stories depends on the objectives of the media. For simplicity assume that the media organizations are concerned with two objectives: profits and ideology. They trade off both. A company which does not care about ideology, just maximizes profits. This is captured by the following quote of McGuire (2001, p.21): *“Opportunism, not ideology, drives [media tycoon] Murdoch. Whether backing Tory or Labour, cold warriors like Margaret Thatcher or communists in Beijing, one aim remains: the desire for a friendly market for his expanding media empire.”*

However, the information presented will depend not only on the objectives of the media organizations, but also on the structure of the media industry and on the preferences of the consumers. In a media environment characterized by competition and easy entry, companies whose editorial policy is mainly concerned with ideology may find themselves either facing losses or a small part of the market – unless the ideological preferences of the population fit perfectly with that of the media organization.

Hence, competition will force media organizations to choose stories which address consumer preferences. Under the assumption of perfect competition, we can reduce the complexity of the model by considering the choice of a typical media company, which we refer to as “the media”. This media will then bring news reports which contains stories demanded by consumers. If not, it will not stay in the market. Which stories will then appear in the media?

Let us first consider the case of homogenous consumers.

Several important results follow from straightforward assumptions on consumer preferences and their activities. The demand side of the market will determine several characteristics of media reporting which are often allocated to the supply side.

When are consumers interested in a story? *Ceteris paribus*, consumers will be more interested in the story if

- it contains more “new” information (“*innovation or novelty* value”) It has to be about something which has not been published previously. Note that “being new” is relative: the novelty aspect can arise simply because the public has noticed something which is new for them although it may have existed for a long time (see Cases in box 1 and 2).
- it is more unique or uncommon (“*curiosity* value”).
- it stimulates or addresses emotions (“*emotional* value”).
- it is relevant or if consumers can relate to the item (“*relevance or relational* value”). The news value is inversely related to “distance”.
- the issue addressed is real or plausible (“*plausibility / credibility*”).
- the issue affects people more (“*impact* value”). People are more interested in issues which may cause death, than in issues which may cause minor effects. Not only the impact itself, but also who it impacts matters (“*impact distribution*”). People react differently if e.g. strong and well-informed adults are affected than if individuals who cannot defend themselves are affected: babies, children, ...
- the more likely one is affected by the issue (“*universality*”). In terms of food issues, specialist foods or specific branded products are less interesting than generic foods like “milk”, “eggs” or “beef”, since these are products which are widely consumed by the population.⁵
- the issue is not resolved (“*uncertainty*”). Hence if there are major disagreements among various groups (NGOs, industry, government, scientists, ...) this stimulates attention. Once the issue is resolved more or less, the audience can put statistics on it, and the uncertainty, and hence the issue becomes less interesting.

⁵ North (2000) mentions also an “*interesting dynamic regarding branded versus generic products. The latter can become ‘open season’ for the media, whereas journalists have to be much more careful with branded products because of libel laws.*”

- the issue concerns negative welfare effects (*“the bad news hypothesis”*). An implication of our model is that stories with negative information (*“bad news”*) are more likely to be chosen than stories with positive information (*“good news”*) because consumers care more, *ceteris paribus*, about information which will affect their welfare negatively – or which will allow them to protect against this – than about information which affects their welfare positively – or which will allow them to obtain welfare gains.

Case 1: The 1988 Salmonella in Eggs Crisis (UK -- 3.5 million chickens were slaughtered).

In the perspective of novelty, Salmonella was not news. Salmonella cases had been going up in the UK ever since statistics were formally published in 1945. There was nothing new in an increase in Salmonella; there was nothing new about people dying from Salmonella. But the 1988 scare was presented in terms of a new "killer bug" - *Salmonella enteritidis*. Even newer, apparently, was a deadly new strain of this organism, Phage Type 4. That was new in the sense that scientists in the UK public health laboratories had developed an analytical method which enabled it to be detected. The fact that it was combined with eggs meant there was an apparently new phenomenon. Salmonella was getting inside the egg.

Interestingly, although it was presented as a virulent killer bug, a study carried out by Manchester Medical Teaching Hospital discovered that in terms of sequelae i.e. full blown septicaemia from which death often arises, *S. enteritidis* low on the scale, relative to other species. *S. typhimurium* was at the top. When it is remembered that *S. enteritidis* replaced *S. typhimurium*, the missing fact of the 1988 scare was that a more benign salmonella replaced one that was actually more potent. In fact, *pro rata*, the death rate dropped, but the media was not interested. It had the novelty. There was a new game in town and that was all that was needed.

Source: North (2000)

Case 2: The Listeria in Cheese Crisis (UK).

A similar effect in terms of novelty as in the Salmonella crisis (see Case 1) occurred when cheese had become infected with a "new" almost unpronounceable bug, again branded as a killer. This was *Listeria monocytogenes*. The fact that it had been discovered in 1926 was irrelevant. It sounded terrible, it was killing babies and, as far as the media was concerned, it was brand new. Nobody, particularly in what used to be Fleet Street, had ever heard of it. Fewer even could pronounce it. So the organism and the associated illness had all the elements of novelty necessary to project the scare.

Source: North (2000)

2.2 Costs of production and consumption

So far we have made abstraction of the costs of producing stories for the media, and of consuming stories for the consumers. These factors will also affect the choice of the stories. For example, on the supply side, the costs of collecting information will affect the choice of the media. These costs may be due to availability of pictures, TV images, access to specialists who are knowledgeable about the issue, etc... Factors which reduce the costs of production will increase the likelihood that a story will be selected.

The costs of consumption also affect the choice. Because of time constraints consumers will prefer stories which are easier to “digest”, *ceteris paribus*. This may imply preferences for more pictures and less text. This will induce the media to choose stories which can be

illustrated by TV images, or by pictures, and thus availability of these will affect the choice of the stories.

An interesting implication of our model is that consumers will choose themselves to be imperfectly informed about most issues, even if they are important (*“The rationally ignorant consumer hypothesis”*). The costs of obtaining information and the costs of processing it will induce consumers to consume information up to the point where the marginal welfare benefits of increasing knowledge by media consumption is offset by the marginal costs of media consumption. Under plausible assumptions this will be before they are fully informed about an issue.

Inversely, the media may refrain from bringing complex stories because they require more time to present, *ceteris paribus*, are more difficult to illustrate, and are more difficult to digest for the audience.

2.3 Heterogeneous consumers and “popular” vs. “quality” media

Let us now consider heterogeneous consumers. In this case it is possible to show that a variety of media organizations will emerge in an environment which allows entry of new media products and organizations.

To illustrate this, consider the simple case of a population with “high skilled” and “low skilled” people. Skills will affect preferences for both the type and the format of stories. First, skills affect consumers’ ability to process the information contained in the stories, and therefore high skilled consumers will prefer stories which contain more information even if that makes the story less easily digestible (“more words and less pictures”).⁶ Second, skills will affect the relevance of the stories for the consumers. High skilled people typically are more mobile, both professionally between sectors and geographically. This means that high skilled consumers are more interested in stories which contain information which goes beyond local issues than low skilled consumers are.

This will lead to the emergence of both so-called “quality” media and “popular” media. The former target the high skilled part of the population bringing news with a wider geographical focus and in a format which is more difficult to process but contains more information. The latter has a more local selection of news items, and is presented in an easily accessible format.

2.4 The dynamics of a story

A straightforward extension of our simple model is to include the dynamics of the choice, i.e. not only *whether*, but *when* to bring a story. Collection of information requires time, effort, and other costs. Full information on an issue, in particular when it is a story about a “novel” item, emerges only gradually. Typically early on only part of the information is available. Publishing a story based on part of the information has the risk of giving a “biased” perspective on the issue – and for the consumer it carries the risk of drawing incorrect conclusions, and thus possible negative welfare effects. The risk for the media is that reporting a biased story may hurt its reputation, and thereby future profits.

⁶ There is some trade-off here since high skilled people may have higher opportunity costs.

However, bringing a story early, even based on limited information, and therefore probably biased, has potential benefits for both consumers and the media. A media organization which brings the story early may capture a larger market share and profits if consumers want whatever information they can get on a new issue. Consumers also face a trade-off. If the issue is something very important they know nothing about and which is potentially very important for their welfare (say, the first information about Anthrax letters sent to US government offices), they may well be willing to take the risk of getting very biased stories in exchange for getting whatever information available (“any news is better than no news”).

However in other cases, consumers may not accept very biased news, and may well react to this by adjusting their future story consumption (i.e. buying other newspapers if they feel that the information provided is too biased, even if it informs them earlier).

More generally, the trade-off between current profits and future profits will depend on the structure of the media market (competition, ...), on the characteristics of the company (tabloid versus quality newspaper) and on the demand side (consumers).

In this perspective there is an interesting secondary, but important, dynamic component here: once one media company (newspaper, radio, or TV) starts reporting on a story (no matter how biased), it’s a free game: everybody will now use the first story as a base for their own reporting. The dynamics are well summarized by the following quotes:

“In practice ... even apparently responsible papers like The Times actually contribute to building up the [food] scare. Then, when the scare has run its course, they will argue against it. But when the scare dynamic is up and running, The Times and other broadsheets will join with the throng and become more tabloid than the tabloids.”

North (2000, p. 8)

“I work for a so-called quality newspaper [De Standaard], so I have some room to bring more background into the discussion, but that room is limited. ... Last year we published whole bookshelves about dioxin, but not about the ethical side of it, not about the scientific side of it, not about the epidemiological side of dioxin – no, we published volumes not so much about the effects of dioxin but about the fear of dioxin.”

Pieter Van Dooren (2000, p.172),

There are two reasons for this. First, the competition (and consumers) force them to bring something on the issue, otherwise the consumers will ask: why is this issue not addressed in my newspaper, or on this TV journal? I should look at other media!

The second reason is that by commenting on a story launched by another media company, it provides them cover in case things go wrong, i.e. when the early information turns out to be very biased. They can then hide behind the fact that they did not bring it and only commented and reflected on a story launched by another media company.

In terms of our model, the first factor reduces the current losses in waiting too long with the story, and the second factor reduces future losses of reputation by not waiting long enough until more info is available.

These dynamic effects have very important implications for the role of the media in the distribution of information and its impact. This is illustrated by the following quote from

North (2000) on the “1678 Papist Plot”: *“The central figure was a character called Titus Oates, who put about a series of lies to the effect that the Jesuits were planning to murder the king and invite in foreign powers to recover England for the Pope and Catholicism. In the ensuing panic, 35 entirely innocent people were executed. It was not until 1684 that the frenzy had completely subsided.”*

Interestingly, this "scare", indistinguishable in principle from the modern scares, existed before even daily newspapers - much less television and radio - had been invented. That a scare dynamic can run without the media suggests that the media is not primarily responsible for the phenomenon. However, in that the Papist Plot run for about six years, the indications are that the media intensifies the scale of the scare, while perhaps bringing it to a conclusion faster.”

3. Empirical Analysis of Media Reporting on Food Safety Crises

This section analyses reporting by three newspapers on two recent food safety crises in Western Europe: the 1999 dioxin crisis and the 2001 foot-and-mouth disease crisis (FMD crisis). Both the newspapers and the crises were selected to analyze how different characteristics of the subjects and the media organizations affect the reporting.

3.1 The food safety crises

The dioxin crisis originated in Belgium. In May 1999 the media started reporting on dioxin contamination of food in Belgium. The resulting crisis caused strong consumer reactions, significant effects on food export markets, and had important political implications. Initially two government ministers were forced to resign, and it is widely believed that the dioxin crisis contributed importantly to the heavy loss of the governing parties in the elections a few months later.

In February 2001, food-and-mouth disease (FMD) was discovered in the English countryside. Despite drastic measures by the UK government, FMD was discovered on the European continent in the following weeks. The ensuing slaughter of millions of animals, blockades of local communities, and the associated effects, as well as the potential spread to other countries, were extensively reported in the West European press.

The coverage of the two crises is analyzed in three newspapers over a period of two months after the news ‘broke’: May 28 - August 1, 1999 for the dioxin crisis and February 22 to May 1, 2001 for the FMD crisis.

3.2 The newspapers

In order to draw conclusions on how reporting is affected by characteristics of the event and by the nature of the media organization, we analyze reporting on these two food crises which originated in different countries by three different newspapers: two Belgian newspapers which differ in audience and media strategy -- a so-called “popular” newspaper (*Het Laatste*

Nieuws (HLN)) and a so-called “quality” newspaper (*De Standaard (DS))*, -- and one international newspaper (*Financial Times international edition (FT))*. To illustrate the different type of DS and HLN, figures 1 and 2 present typical covers of both newspapers.

Both Belgian newspapers are in Dutch. Belgium has three official languages (Dutch, French and German). Dutch is spoken by approximately 60 % of the population, mostly in the Flemish (northern) part of the country. There are 3 important groups of Dutch-language publishers in Belgium: the Vlaamse Uitgeversmaatschappij (VUM), the Persgroep (PG) and the Regionale Uitgeverijgroep (RUG). VUM and PG provide respectively 41 % and 32 % of the market share in the Dutch speaking part of Belgium (CIM, 2001). The two newspapers chosen, *De Standaard* and *Het Laatste Nieuws*, are published by VUM and PG respectively. *Het Laatste Nieuws* is the most popular newspaper in the Dutch-speaking part of Belgium with a market share of 27 %. Based on a ranking of the Belgian population according to income, profession, and education level of the household head from 1 to 8, its readers mainly consists of people from classes 3 to 5, with a large share of pensioners and both skilled and unskilled workers (CIM, 2001).

In contrast, 56 % of the readers of *De Standaard* come from classes 1 and 2 of this ranking. *De Standaard* has a total market share of only 8 % but is considered to be the leading “quality” newspaper. More than half of his readers have a higher education degree (CIM, 2001).

The *Financial Times* is a world business newspaper, based in London, with almost 500,000 issues sold per day (www.financialtimes.net; 2001) and with a global readership estimated at over 1.3 million people in more than 140 countries. Its audience mainly consists of business leaders, government employees, international entrepreneurs, bankers, investors, teachers and students. This newspaper tries to bring the most important news on world business, financial, economic and political topics around the world.

3.3 Empirical Methodology

We measured the attention paid by the newspaper to the food crises by constructing several indicators of area coverage by the articles on the food crises covered in the newspapers. The global article surface is often the most valuable and only possible measuring unit (Roe, 1996). More specifically, the Coverage Area (CA_{ij}) of food crisis i in newspaper j is calculated as

$$CA_{ij} = \sum_{p=1}^P \theta_p CA_{ij}^p$$

where P is the total number of pages and θ_p is the weight of page number p and CA_{ij}^p is the area covered by an article on food crisis i on page p . The weight of the pages in consumer perception (attention) or in the editors’ choice is not known. To avoid that our own choice of weights would affect the results we ran a set of sensitivity analyses with different sets of weights, and concluded that the results were very little affected by the choice of weights. The set of weights used in the results as presented in the paper is the following:⁷ The front page has weight 1 ($\theta_1 = 1$) for all newspapers. For DS and FT, two newspapers with a highly

⁷ One alternative, and quite different, weight set we used was the following. The front page has weight 1 ($\theta_1 = 1$), pages two and three received weight 0.8 ($\theta_2 = \theta_3 = 0.8$), and $\theta_4 = \theta_5 = 0.6$, $\theta_6 = \theta_7 = 0.4$, and the remaining pages received weight 0.2. As mentioned in the main text, the results were very similar.

structured internal organization from page 2 to 7 (i.e. once it is decided not to put the article on the front page, the choice of which page is determined primarily by the subject of the article, rather than its importance), we allocated pages two to seven weight 0.5 ($\theta_2 = \theta_3 = \theta_4 = \theta_5 = \theta_6 = \theta_7 = 0.5$), and the other pages were allocated weight 0.2 ($\theta = 0.2$ for page 8 and beyond). For HLN there appeared to be a much looser organization and importance seemed much more linked to being published up front in the newspaper. Therefore we used following weights for HLN: pages two and three received weight 0.6 ($\theta_2 = \theta_3 = 0.6$), and then $\theta_4 = \theta_5 = 0.4$, $\theta_6 = \theta_7 = 0.3$, and the remaining pages received weight 0.2.

For each crisis and newspaper three different indicator variables were calculated per day: the 'Total Coverage Area' (TCA), which is the combination of the 'Illustrated Coverage Area' (ICA) and the 'Text Coverage Area' (XCA).

In addition to calculating these indicators, we categorized the reporting on the FMD crisis by the Belgian newspapers under either "domestic" (Belgian) or "international" focus, following a simple approach to content analysis (see e.g. Budd et al 1967; Kalaitzandonakes et al, 2000). Under "domestic" news, we categorized all the articles with a focus on Belgium, for example precautionary measures taken by the Belgian government, potential Belgian cases of the disease, national and regional consequences of the outbreak, etc. The "international" news concerned news with an international (meaning 'non-Belgian' in this framework) focus. When one article covered both domestic and international issues, the article was categorized according to the main focus of the discussion.

3.4 Empirical Results

The results of the empirical analyses are summarized in tables 1-4 and figures 3-12.

The first conclusion is the remarkable similarity between the Belgian newspapers HLN and DS in terms of total attention to the food safety crises (see figures 3-6). The total coverage of the dioxin crisis and, somewhat less, the FMD crises is remarkably similar, and follows roughly the same pattern, with the bulk of the coverage in the first 20 days of the dioxin crisis and in the days 10-30 of the FMD crisis. The correlation of daily total coverage (TCA) is 81% for the dioxin crisis and 76% for the FMD crisis (see table 2).

The coverage by the FT is different: there is very little reporting on the dioxin crisis. As an illustration: the highest coverage of the dioxin crisis by the Financial Times is on day 13, the day before the weekend of the elections in Belgium, when the Financial Times speculates about the possible consequences of the crisis on the election outcome. The reporting on FMD is also less and more equally spread over the day 10-50 period.

Still, comparing FT reporting with HLN and DS shows a closer similarity between FT and DS, the two quality newspapers, with an average correlation of 50%, than between FT and HLN with an average correlation of 38%.

Despite the general similarities between HLN and DS in aggregate coverage, there are important differences in the format and focus of the coverage. First, there is a clear difference in terms of format: the average share of illustrations in total coverage is 35% in HLN, considerably more than in DS (26%) and in the FT (20%), although the illustration share in the FT is significantly higher for the FMD case, at 26% similar to that of DS (see table 3).

Second, there is a remarkable difference in regional coverage between HLN and DS. DS covers much more international aspects of food crises than HLN (see figures 7 and 8). The difference in total coverage between DS and HLN in the FMD crisis is almost entirely due to differences in coverage of international aspects of the crisis. Table 2 shows how the correlation in daily total coverage of HLN and DS is almost identical for domestic aspects of the FMD crisis (81%, which is identical to the correlation for the dioxin crisis, which was – from Belgian perspective -- almost uniquely a domestic issue), and much larger than the 45% correlation coefficient for the international aspects.

This is also illustrated by the following cases. All three newspapers published their first article on FMD on the same day, but the focus was different. The title of the DS article was *“Europe stops the import of British cloven-hoofed”*, focusing on Europe and not on Belgium in particular, whereas HLN titled *“Belgium prohibited the import of British cattle because of foot-and-mouth”*, an article with a complete national emphasis.

Further, DS has the highest ‘international’ coverage on day 19 (see figure 7), when the first case of FMD was found on the European continent, specifically France. The epidemic was now crossing the borders. In contrast, HLN has the highest ‘international’ coverage on day 53, when it reports that humans are infected by FMD in the UK (see further).

Third, while the quantity dynamics of total coverage appear rather similar, HLN is earlier both in its initial coverage of the crises and in reducing attention. This is well illustrated by figures 9 and 10 which compare the share of aggregated total coverage of the three months over time. It is clear from these figures that initial coverage is more intense in the popular press, but coverage is also reducing faster in the popular press. This observation is consistent with the notion that the same forces of competition for an audience in the media leads to an intensification of the media attention early on, but also to rapid decline in attention afterwards.

Fourth, an interesting difference between HLN and DS is in the “nature” of the coverage. This can best be illustrated with some case studies.

A first illustration is from the “Klemskerke case” – see box. The Klemskerke case was a dream for the popular media: it combined intense personal drama with high level politics, a central role played by an organically raised lamb yielding images of high emotional value, and with bargaining and uncertainty (!) on the final outcome which lasted for several days. In HLN more than 20 % of total domestic coverage and 18 % of total coverage of the entire FMD crisis over three months went to this single case (see table 4). While DS paid less attention to this case, it is telling that DS, despite its ‘quality image’, still paid quite a bit of attention to the Klemskerke case: more than 12% of aggregate total domestic coverage.

Case 3: Klemskerke

Klemskerke is the name of a village in Belgium. An organic farmer in Klemskerke imported 12 goats from Wales (Great Britain) before the FMD outbreak. After the FMD outbreak, the Belgian



government decided that all the livestock of all farmers who had imported live animal from the UK had to be slaughtered. This included the organic farmer's stock of 270, mostly home reared and specially selected, organically raised goats. The governments' decision resulted in wide protests from the local and organic community, attempting to block the implementation through political pressure, blockades, and legal action. While the actions proved ultimately not successful and the governments' decision was implemented, the actions lasted for several days and strongly captured the attention of the media.

Another illustration is from HLN reporting on FMD. On day 53, HLN reports that in the UK symptoms of FMD had been found on a human being. There are two interesting observations on this case. First, this is the most extensive coverage of international issues of the entire FMD crisis. Second, when a few days later it was announced that the person was not affected by FMD and that the symptoms were due to another cause, this was presented in a small article on page 17. Hence, this case provides worrying evidence on the selectivity of reporting, and of information distribution through the media. It seems to illustrate that *"(only) those who shout first, get heard."*

Finally, some evidence on "the bad news hypothesis". While it is hard to systematically collect evidence on good versus bad news, it appears that there is indeed a bias towards negative news reporting. In a way the entire reporting in the first months of the FMD and dioxin crises were essentially "bad news". Very few positive stories emerged. Quite telling, in the months after the crises were under control, very few articles appeared in press. Figures 11 and 12 illustrate how in the 100 days after the last FMD case was diagnosed –every day that went by without a new case was "good news"–, hardly any articles appeared in the press.

At the end of the 100 days De Standaard carried a small article announcing that the FMD crisis was now officially over. Nothing was reported in HLN. In the FT the announcement of the formal end of the FMD crisis was hidden inside a page six article on the costs of the FMD crisis – hence even the good news was buried in an essentially negative news story.

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Table 1: Summary Statistics

			HLN	DS	FT
DIOXIN	TCA*		4,35	5,30	0,23
	XCA*		2,89	3,86	0,20
	ICA*		1,46	1,44	0,03
FMD	Total	TCA*	2,03	2,72	1,64
		XCA*	1,32	2,04	1,21
		ICA*	0,70	0,68	0,43
	Domestic	TCA*	1,60	1,39	n.a.°
		XCA*	1,08	1,05	n.a.°
		ICA*	0,52	0,34	n.a.°
	International	TCA*	0,43	1,33	n.a.°
		XCA*	0,24	0,99	n.a.°
		ICA*	0,19	0,34	n.a.°

*TCA = Total Coverage Area; XCA = Text Coverage Area; ICA = Illustration Coverage Area; All these areas are measured in m²

°n.a. = not applicable

Table 2: Correlation of the Coverage Dynamics

			DS & HLN	HLN & FT	DS & FT
DIOXIN	TCA*		0,81	0,55	0,54
	XCA*		0,81	0,49	0,52
	ICA*		0,68	0,38	0,43
FMD	Total	TCA*	0,76	0,21	0,46
		XCA*	0,74	0,18	0,47
		ICA*	0,60	0,19	0,27
	Domestic	TCA*	0,81	n.a.°	n.a.°
		XCA*	0,81	n.a.°	n.a.°
		ICA*	0,77	n.a.°	n.a.°
	International	TCA*	0,45	n.a.°	n.a.°
		XCA*	0,37	n.a.°	n.a.°
		ICA*	0,31	n.a.°	n.a.°

*TCA = Total Coverage Area; XCA = Text Coverage Area; ICA = Illustration Coverage Area; All these areas are measured in m²

°n.a. = not applicable

Table 3: Illustration Share (in %)

			HLN	DS	FT
DIOXIN	ICA/TCA*		34	27	13
FMD	Total	ICA/TCA*	35	25	26
	Domestic	ICA/TCA*	32	24	n.a. [°]
	International	ICA/TCA*	43	25	n.a. [°]

*TCA = Total Coverage Area; ICA = Illustration Coverage Area; All these areas are measured in m²

[°]n.a. = not applicable

Table 4: Coverage of the Klemskerke Case by the Belgian Newspapers

		HLN	DS
<u>1) Klemskerke</u>	TCA*	0,37	0,18
	XCA*	0,23	0,12
	ICA*	0,14	0,06
	% of TCA FMD domestic	23	13
	% of TCA FMD	18	7

*TCA = Total Coverage Area; XCA = Text Coverage Area; ICA = Illustration Coverage Area; All these areas are measured in m²

Figure 1: A Typical Cover of *Het Laatste Nieuws*

HET LAATSTE NIEUWS
WOENSDAG 28 FEBRUARI 2001
D.N. AUREX Bredastraatweg 347, 1780 Konekegem - C 02 434 22 11
DAGBLAD NR. 50 • 11.45p JAARGANG 32 FRANK

De Sportkrant
Rode Duivels met anderhalve spits tegen San Marino
Lees blz. 18, 20 en 21

Wielergids 2001
UNIEK CADEAU
BELANGRIJK BERICHT

DE MEEST HANDIGE WIELERGIDS
ZAKFORMAAT - GEPLASTICEERD

De volledige kalender
Alle ploegen
Wegwijzers van alle Belgische wedstrijden
Alles over Tour, Vuelta en Giro

DUBBELE KATER NA CARNAVAL
AALST — Met een laatste klapke hier in de hand bekent de... Van Lier van drie dagen carnaval in Aalst. Maar niet alleen het overduidelijke drankverbruik...
Lees blz. 4

Duizenden schapen voor de bij!
BRUSSEL — Alle schapen, geiten, lama's, herten en zelfs kamelen die na 1 februari uit Engeland ingevoerd werden en de dieren waarmee ze in contact kwamen, moeten worden vernietigd. Het zou in totaal gaan om 8.000 dieren. Minister Jaak Gabriëls zet met deze maatregel de grote middelen in om de mond- en klauwzeerziekte uit te roeien.
PETER VERBODEN
Met de beslissing volgt de Belgische regering het voorbeeld van de andere Europese landen. «We willen geen enkel risico lopen», zegt woordvoerder Sigrid Gevaerts. De maatregel roept betenmeringen op aan de ommekeer van schapen op 1 augustus 1990 duizenden varkensdieren terecht kwamen na de val van de IJzeren gordijn. Het is niet duidelijk. Officieel werden 12 geiten ingevoerd, 40 varkens en 2.000 schapen. Uit een ruwe schatting blijkt dat er nog eens 6 tot 8.000 andere schapen «in contact» kwamen met hun Britse soortgenoten. Wellicht gebeurt de verbranding op het bedrijf zelf, tenzij het transportbedrijf tijdelijk opgeheven wordt en de dieren naar het werkingsbedrijf Rendac worden vervoerd. Welke schadevergoeding de Belgische boeren krijgen, is nog niet duidelijk. Naar alle waarschijnlijkheid zal 30 procent door de Belgische regering betaald worden en de rest door de Europese Gemeenschap. «De totale kostprijs is op dit moment van minder belang», zegt Gevaerts. «Dieren is te groot om nu al met dat rekenspel bezig te houden».
Lees blz. 8

«We liepen vijftien jaar rond in tuin vol bommen»
LOMBARDIJDE — De ontmijningsdienst heeft gisteren in het West-Vlaamse Lombardijde vijftien bommen uit de tuin van Yvan en Jeannine Van Rijbergen. Goed voor een volle vruchtboom. Bij graafwerken in de tuin van het echtpaar stootte de aanmeester eerst op drie bommen. Omstandig werd de ontmijningsdienst erbij gehaald. Een graafwerk leverde een nog grotere buff op. In totaal werden vijftien projectielen en enkele obussen uit de Eerste Wereldoorlog bavegehaald. De familie zat amper twee meter diep en was nog intact. Het ontmijningswerk was zeer groot. Niet te geloven, vijf wonen hier al 15 jaar op een bommenvalmest. zuchten Yvan en Jeannine. (BPM)

DRONKEN FUIVER MISHANDELT DOCHTERTJE (1,5)
AALST — Een dertigjarige man en Aalst heeft zondag 18 uur lang carnaval gevierd, terwijl zijn dochtertje van anderhalf jaar alleen thuis bleef. Toen de vader laderzaal terugkwam, was het uitgekroonde kind aan het huilen. Omdat het meisje niet sloopt, kreeg ze ruke klappen. Het kind werd met ernstige verwondingen in het ziekenhuis opgenomen. De vader is aangehouden. (DMP)

CLOWN ONTVOERT MEISJE (8)
EUPEN — Het gerecht van Eupen is op zoek naar een onbekende man die maandag, verkleden als clown, een achtjarig meisje ontvoerde tijdens een carnavalsfeest in La Calamine. De man lokte het meisje mee en ranselde haar aan. Middelen de nacht liet hij haar los. Het kind heeft geen fysieke letsel, maar is wel «slechts getraumatiseerd». (JM)

AFGETUIGDE BUSCHAUFFEUR
«Ik houd nooit meer een zwartrijder tegen»
Lees blz. 3

Slachtoffers ongeval weg met auto behulpzame chauffeur
CHARLEROI — Een man uit Rosellen, nabij Charleroi, moest de dienst van zijn wagen afgeven toen hij hulp bood aan slachtoffers van een verkeersongeval. Toen de autobestuurder dinsdagmorgen om 1.30 uur in Jumez een ongeval zag gebeuren, aarzelde hij geen seconde om de inzittenden te helpen te snellen. Maar de vier slachtoffers bleken carjacks die met een gaspedaal wagen aan de haal waren gegaan. Ze bedroegen een hulpverlener, namen zijn auto over en af en gingen er met zijn wagen vandoor. De ongelukkige chauffeur kon te niet naar huis. Van de carjacks of de gewonde wagen ontbreekt elk spoor. (JPG)

Goedemorgen Vlaanderen
0° 6°
Vrij koud
Lees blz. 18

Dief steelt geboortelijst bij elkaar
BOUTERSEM — Een inbreker die pas vader geworden is, pakt met zijn geboortelijst naar kinderenverlof 'Vlaanderen in Bouw'. De dader bleek er in en stiel er een hele baby-waai, inclusief kinderbedje, verzorgingsproducten, een 100-lijl wegverplaat en vijf overgeplaat voor de kinderverlof. Ook de kinderkroon waarmee de fruitpomp van de akker werd bereid, is verdwenen. De inbreker had alle tijd om de kinderbodjes uit elkaar te scheuren en alle materialen in te laden. De verantwoordelijke van het kinderdagverblijf neemt alvast extra beveiligingsmaatregelen. (RKO)

Eindelijk krijgt u meer voor minder!
ABS + Anti-carjacking systeem + Elektrische ruiten vooraan + Elektrisch open dak = 9.000 BEF
BTW ind. (13,10%)
Dit schitterend aanbod krijgt u bovendien de al uitzonderlijk uiterst speciale serie «Latino» en «Blue» «Surf». Er is nu een SEAT «Latino» «Latino» voor 379.000 BEF (379.000 €), een SEAT «Caribba» «Latino» voor 449.000 BEF (449.000 €) en een SEAT «Caribba» «Latino» voor 449.000 BEF (449.000 €). Er is nu een SEAT «Blue» «Surf» voor 449.000 BEF (449.000 €).
SEAT biedt meer dan u denkt. SEAT auto emoción

Figure 3: Dynamics of Total Coverage of the Dioxin Crisis Per Day

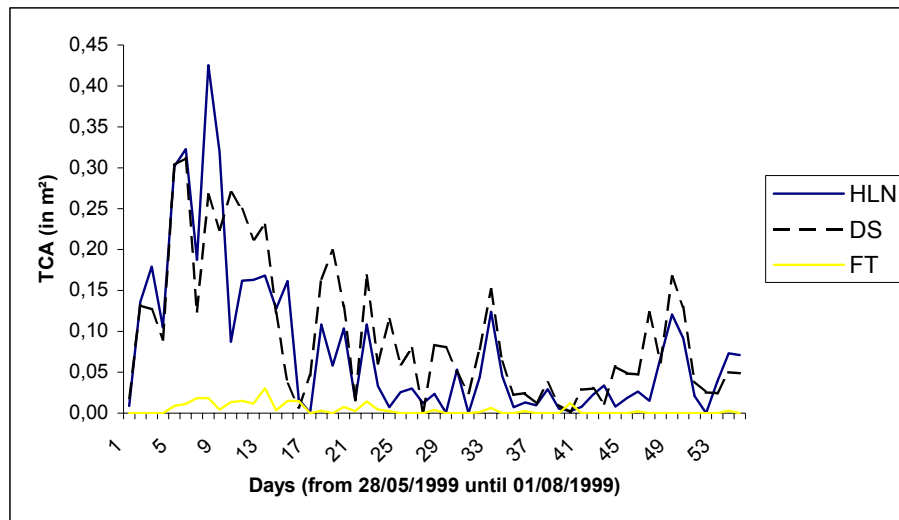


Figure 4: Dynamics of Total Coverage of the FMD Crisis Per Day

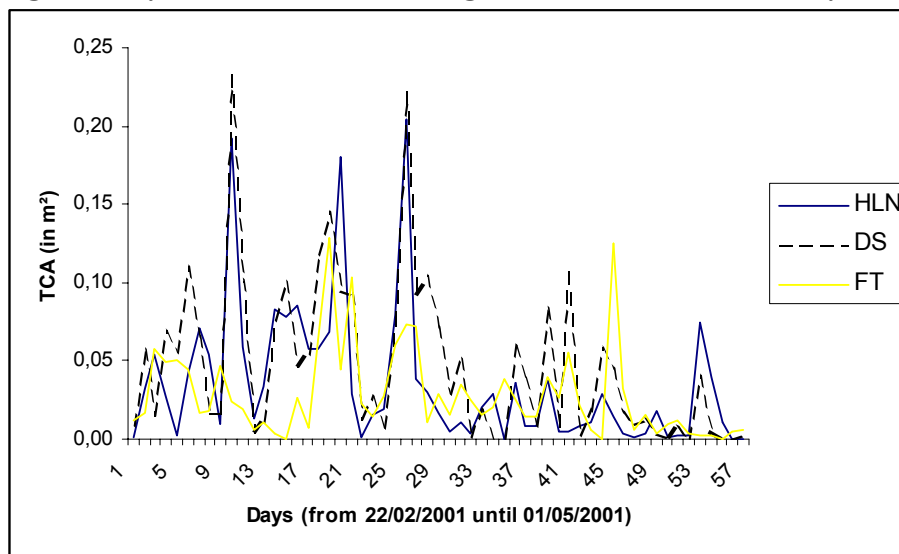


Figure 5: Dynamics of Total Coverage of the Dioxin Crisis by the 3 Newspapers

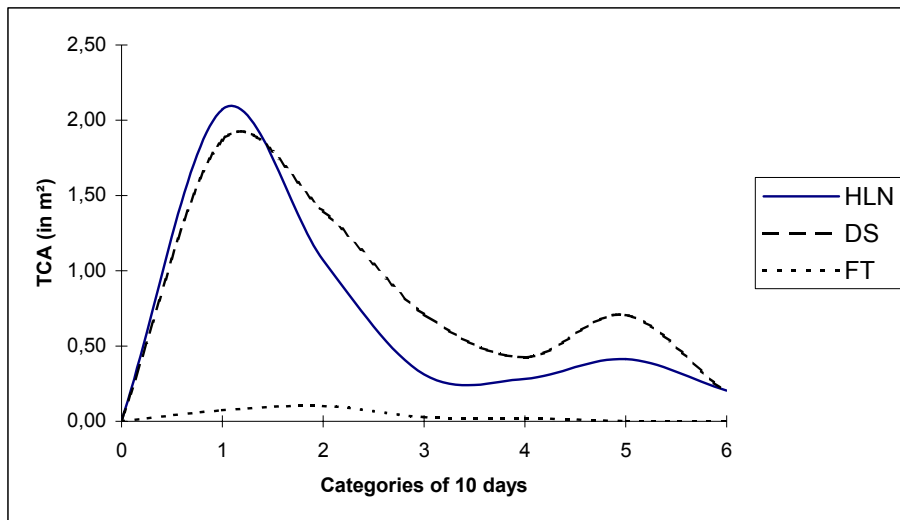


Figure 6: Dynamics of Total Coverage of the FMD Crisis by the 3 Newspapers

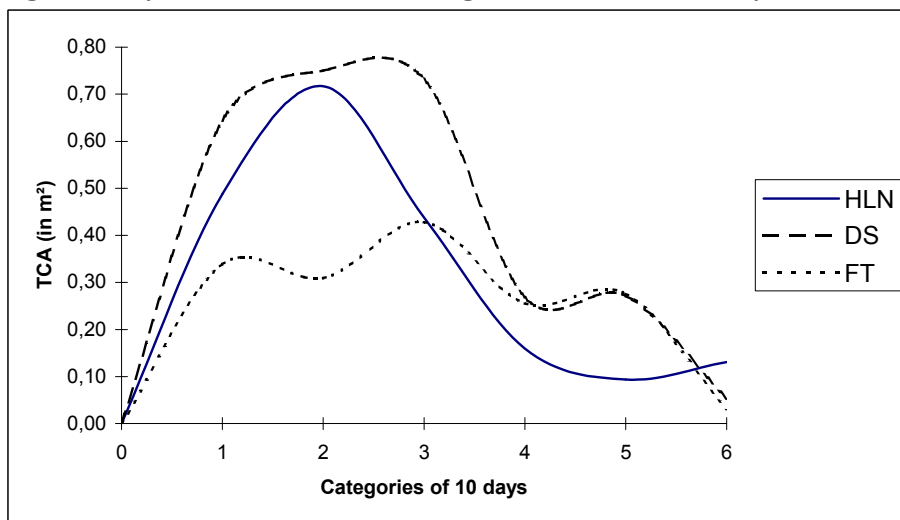


Figure 7: Dynamics of Total Coverage of International News on FMD Per Day

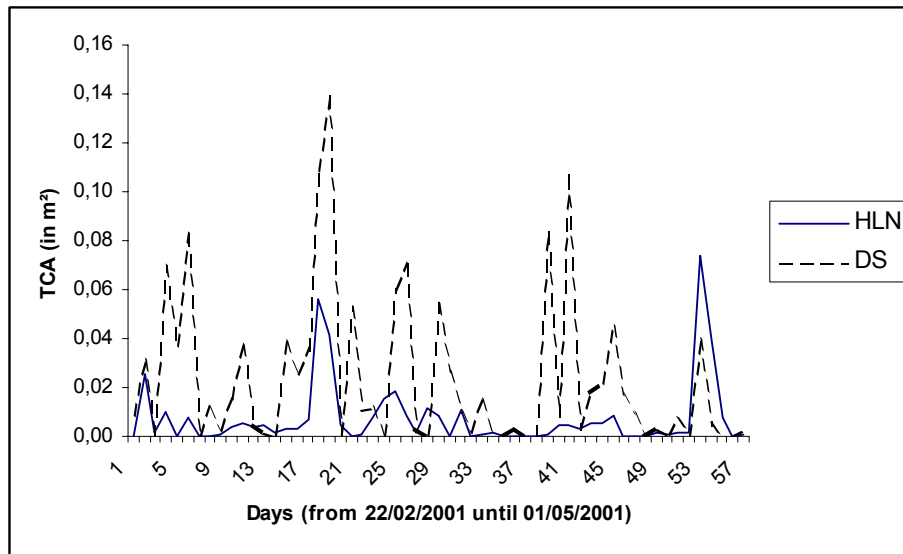


Figure 8: Dynamics of Total Coverage of Domestic News on FMD Per Day

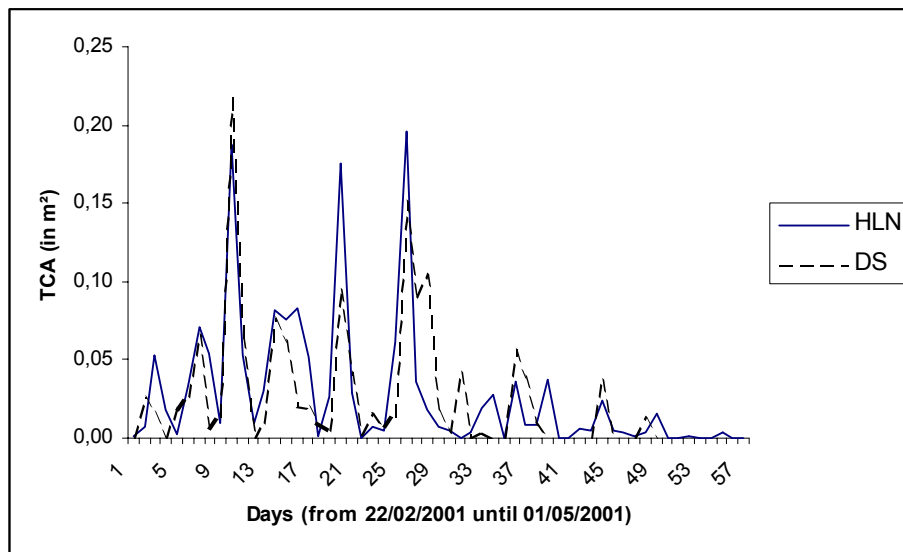


Figure 9: Dynamics of Total Coverage (in % of TCA) of the Dioxin Crisis by the 3 Newspapers

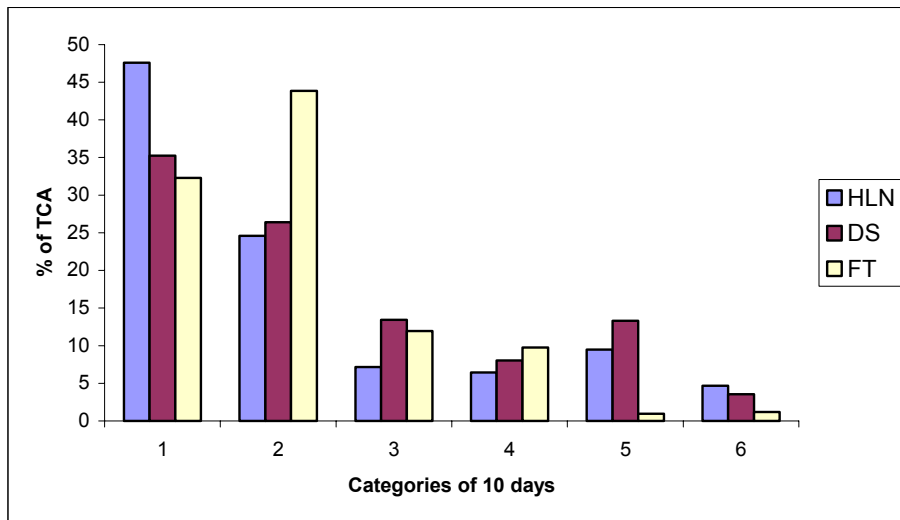


Figure 10: Dynamics of Total Coverage (in % of TCA) of the FMD Crisis by the 3 Newspapers

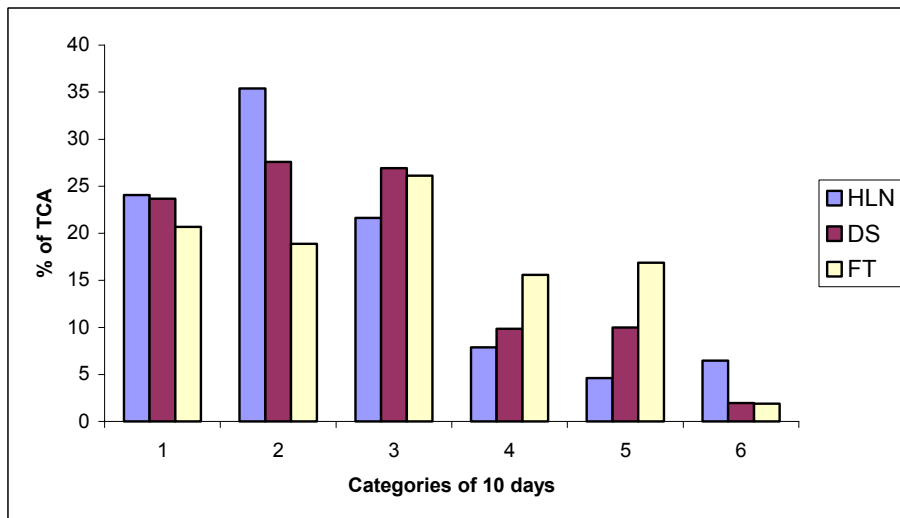


Figure 11: Dynamics of Total Coverage of FMD after the first FMD case

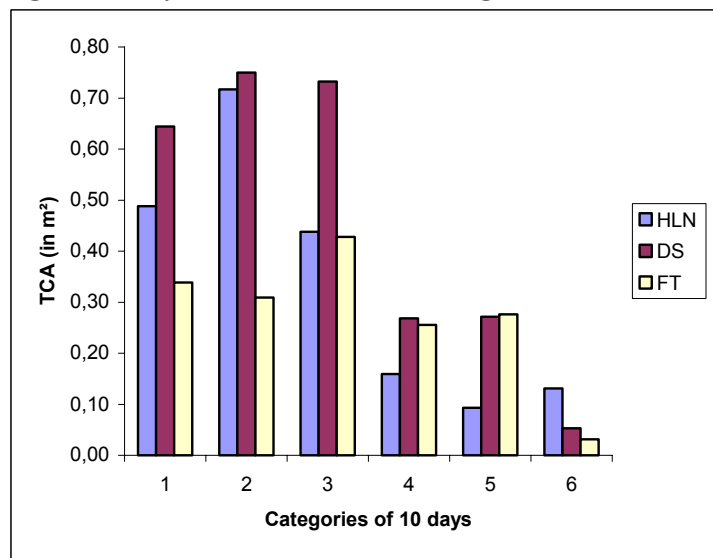


Figure 12: Dynamics of Total Coverage of FMD after the last FMD case

