

# Reporting on Fukushima

A survey of two Belgian newspapers shows that around half of the articles published in the aftermath of the Fukushima Daiichi nuclear accident focused on domestic or international issues. Given the link between mass media and public policy, such coverage could have real effects on a country's nuclear energy programme. By Tanja Perko and Catrinel Turcanu

**M**ass media and journalism play a progressively important role in contemporary nuclear emergency situations. Public policy scholars often accentuate the key role of crises in explaining policy change [1]. When mass media report intensively about a certain topic, the people receiving the media information consider this topic as important [2-3]. Moreover, numerous studies from political and risk research established strong correlations between media and public priorities [4]. Although nuclear accidents are mostly not directly experienced, but rather learned through media reports, these reports have a strong impact on the public opinion and often lead to political discussions about the use of nuclear energy for power generation [5].

In today's societies, risk-related information is prevalent in information distributed or produced by the mass media and is frequently a subject of journalism. Journalists represent, interpret, and construct reality [6]. In doing so they often make use of the collective memory. Several studies on journalistic reporting have examined the relationship between media and memory with focus on historical analogies drawn between present and past events [7-9]. The findings of these studies confirmed that present factors tend to influence journalistic recollections of the past, and past factors tend to influence, or distort, journalistic experience of the present.

However, much empirical work still remains to be done in order to explain the influence of collective memory, of crisis-

induced policy outcomes and of the link between media reporting and policy changes (agenda-setting), especially in the context of a nuclear accident.

A strand of research has tackled the agenda-setting power of the mass media [10-11] and indicates that media coverage can influence the political agenda [12].

Recently we looked at the reporting of the Fukushima accident in two Belgian newspapers in an effort to make a link between media attention and the public policy debate.

## The study

The study involved analysis of the Fukushima-related content published in two Belgian newspapers: *De Standaard* (Dutch-language) and *Le Soir* (French-language) over two separate periods. Some 260 articles published during the two months following the Fukushima accident (11 March 2011 to 11 May 2011) were analysed, along with 34 articles published around its one-year anniversary (3-18 March 2012). The aim was to determine the main concerns of media discussions, to explain the influence of collective memory and to identify potential links between media reporting and policy changes.

The news articles were downloaded from the press database Mediargus. They were sourced through a database search using the words 'Fukushima' and 'nuclear' in the first instance, and 'Fukushima' alone in the second.

Two independent coders were responsible for coding each article. In case of

disagreements, the master coder decided the final code based on a discussion. The inter-coder reliability was calculated with Krippendorff's alpha coefficient. To achieve high inter-coder reliability a codebook was written that discusses the various categories of codes and defines the different terms and concepts. All coders received training on content analysis before they started the coding. When coding the articles, it was critical that the coders relied only on what was written in the articles, rather than drawing on their prior experiences and emotional responses to the stories.

We had three main hypotheses. First, we expected that coverage of the Fukushima nuclear accident would alternate between attention to the accident itself and attention to domestic and global issues (H1). Second, we hypothesised that the discussion in the media would be linked to the Belgian nuclear energy programme (H2). Third, we expected that the collective memory of the Chernobyl accident would be linked to the accident at Fukushima and the public policy related to nuclear energy programmes (H3). Energy was expected to be the most controversial topic both in articles published in the two-month aftermath of the accident and around its one-year anniversary.

## Findings

### Home or away?

Articles were categorized depending on the main region concerned, be it the accident itself and events in Japan, domestic issues in Belgium, issues related to the European Union, issues relevant to another country or

Figure 1: Country of concern during the first two months

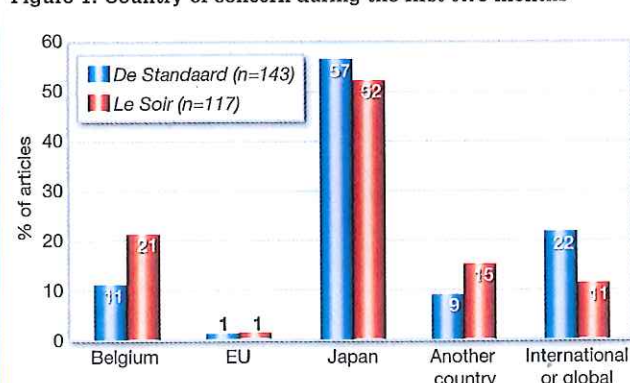


Figure 2: Country of concern during the first anniversary

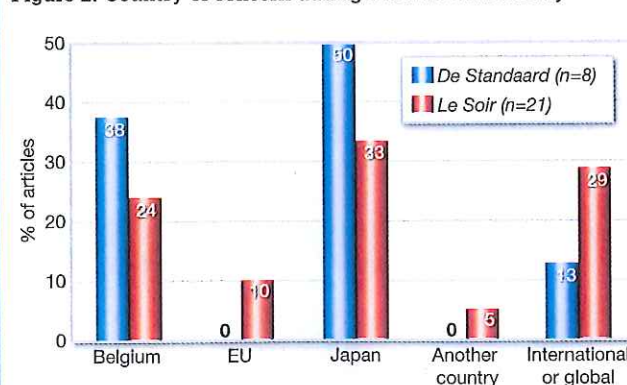
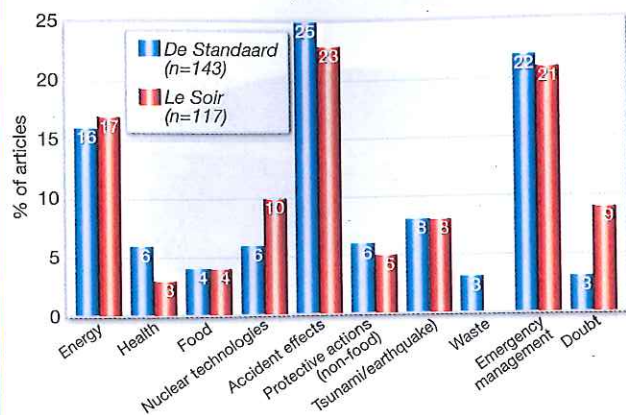




Figure 3 Main topics of concern during the first two months



international or global concern.

Figure 1 shows that initially the two Belgian newspapers mainly dedicated their attention to the situation in Japan. In the first two months after the accident 55% of the articles were directly related to the events in Japan. The remainder focused on the relevance of the accident globally (17%), in Belgium (15%), or in another country (12%).

There was an obvious switch in the media coverage one year later, with the domestic, international or global influence of the Fukushima nuclear accident becoming even more important (Figure 2). Although 38% of the articles were still directly related to the events in Japan, the main concern of 28% of the articles was a domestic issue, for example the nuclear reactors in Belgium. International or global issues were the main focus of around a quarter of the articles.

It is interesting that the Belgian media analysed did not discuss the nuclear accident in Japan in the context of European Union, but rather in the context of a particular country of the EU in the first two months after the accident. For instance, Germany and German political decisions related to the future of a nuclear energy programme were regular topics in the Belgian press. It seems that the European context of the accident became slightly more important in one of the two newspapers analyzed during the first commemoration of the accident.

From the findings we can conclude that journalists linked the nuclear accident in Japan with domestic or international issues. This became even more evident around the one-year anniversary of the accident when journalists published a larger share of the articles in which the Fukushima accident was used only as a starting point for a discussion about a domestic or international issue.

The effects of the accident and emergency management were the main topics in the journalistic discussions in the first two

months after the accident (see Figure 3).

Almost every second article published in that period reported on the effects of the accident, such as radioactive contamination (land, sea, inhabited areas) and protective actions like decontamination, evacuation and sheltering. The in-depth analysis of the evolution of the topic during the weeks following the accident shows that media focused its attention on multiple topics at the beginning of the accident, yet the diversity of topics within media attention decreased with time and became limited to energy.

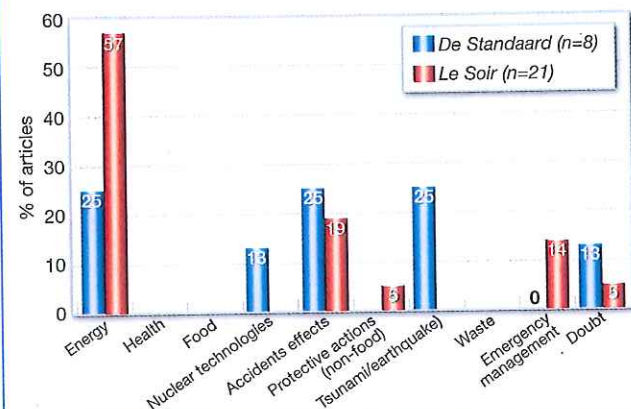
One year after the accident, during the first anniversary, energy became the most discussed topic in the media articles mentioning the accident at Fukushima (see Figure 4). Almost 60% of the articles published in *Le Soir* discussed energy issues in relation to the Fukushima nuclear accident. The second most frequent topic (19%) was the effects of the accident that were unrelated to health or food: contamination, radioactivity, economic impact, material damage and disturbance of everyday life.

Although the media coverage of the topics in the newspapers analyzed was similar during the first two months after the accident, we can notice a drastic difference in the media coverage, especially related to energy, one year after the accident. The different media coverage and space given may indicate different editorial policies of the two newspapers as regards nuclear energy.

A more detailed analysis shows that the most discussed energy issue one year after Fukushima was the future of nuclear energy.

The future of nuclear was a frequently covered aspect in articles that had 'energy' as main topic (91% for *Le Soir*, and 50% for *De Standaard*). Overall, more than 90% of the analyzed articles related to energy discussed the potential exit from the nuclear energy programme and the moratorium. In *Le Soir*, energy production was the second-most covered sub-topic in the context of energy

Figure 4: Main topics of concern during the first anniversary



(58%), followed by energy supply (33%) and climate change (8%).

### Another Chernobyl?

The journalistic production of news is in many cases subject to the influence of collective memories. These refer to the shared pool of information held by a group of people and are widely available in the public sphere. In this research we traced back the influence of the collective memory of the Chernobyl accident on the media reporting about the Fukushima nuclear accident.

The results of the media analysis of the articles published in the first two months after the Fukushima accident reveal a strong influence of the past on the reports. Although the nuclear accident at Chernobyl had different characteristics to the accident in Fukushima, it was referenced in the media almost every day.

Figure 5 presents of the frequency of appearance of the word 'Chernobyl' in all the articles related to the Fukushima accident published in the two newspapers in the first nine weeks after the accident. We found that the word 'Chernobyl' was significantly more frequently mentioned in *Le Soir* than in *De Standaard* during the two months after the accident. The frequency of referring to the Chernobyl accident in the two newspapers showed increasing differences between the two newspapers with time after the accident; the largest difference in frequencies was observed in week 8, when the world commemorated the 25th anniversary of the Chernobyl accident. From Figure 5 it is clear that the journalists of *Le Soir* referred to both nuclear accidents in the same article.

This trend of referring to the Chernobyl accident is even more significant in the articles published one year after Fukushima. The newspaper *Le Soir* mentioned the word Chernobyl in more than 38% of the articles discussing the first anniversary of the



Figure 5: Mention of Chernobyl

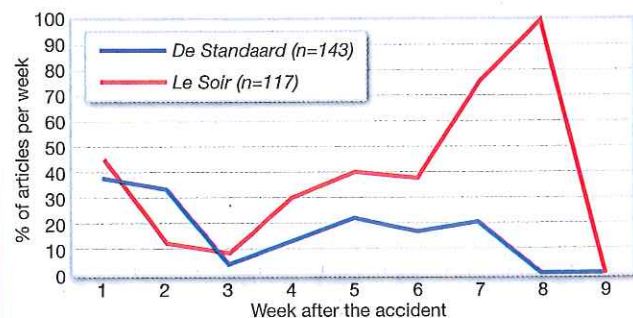
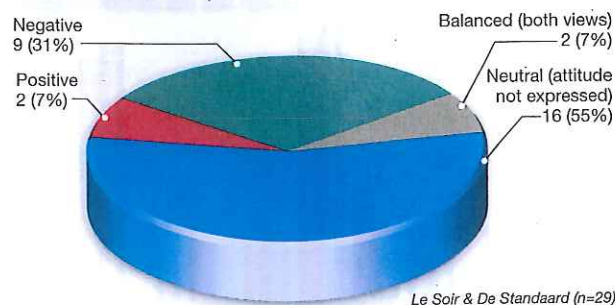


Figure 6: Orientation of articles towards nuclear energy one year after Fukushima



Fukushima accident, while *De Standaard* did not refer to the Chernobyl accident at all.

### Coverage of controversy

The rule of thumb in journalism is that a conflict or disagreement increase media

attention. Media articles containing a strong conflict are generally considered worthy of publication [6].

One of the main aims of our study was to identify the existence of conflicts or disagreements in media reports about the

Fukushima nuclear accident. Such conflict stories explicitly mentioned that there was disagreement about an issue (for example, nuclear energy, emergency management, monitoring), and the disagreement was expressed in words (for example, contradictory positions or claims) or in deeds (for example, protest or stigmatization).

Controversy was present in every third article (32%) in the two months following Fukushima. One year after the accident controversy became even more visible in the press, being presented in every second article. Yet, again drastic differences between the two newspapers were identified: 62% of the articles in *Le Soir* and 25% of the articles in *De Standaard* reported on a strong disagreement or a conflict.

An additional analysis revealed that the future of nuclear energy was the most controversial topic in media reporting around the first anniversary of the Fukushima accident. In the articles where the attitude towards nuclear energy was expressed, most of the articles (31%) were negatively-oriented towards nuclear energy, with journalists presenting mostly views and arguments against nuclear energy (Figure 6).

### Looking ahead

Comparative studies among more than one country are one of the possible further studies as well as studies related to influence of media reporting about nuclear accidents on public policy. This research will be addressed in the framework of European project PREPARE, supported by European Commission. The project will start in February 2013. ■

### Author notes

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