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# “I want to know how high the wave really was”

## Children worldwide and their perceptions of the catastrophes in Japan in March 2011

**The article summarizes the results of a study in Germany, Brazil, the USA, Ecuador, and Cuba on whether and how children perceived the disasters in Japan in March 2011.**

### 11 March 2011, 2:47 pm local time

*Due to the obduction of the Pacific and North American seabed plates, a magnitude 9.0 earthquake occurs off the coast of the Miyagi prefecture, around 370 km northeast of Tokyo. As a result of the quake a huge wave, 10 metres high, rises up and hits the coast at Sendai and Sanriku. The mass of water flattens everything in its path, sweeping away everything that can be moved, along with trees, houses, an airport, and ships. The destruction extends up to 10 km inland. The nuclear power station Fukushima 1 is also damaged, leading to a worst-case scenario, and the release of nuclear radiation.*

The disasters dominated world news reporting. The earthquake off the Japanese east coast, the tsunami and the technological calamity at the Fukushima nuclear power station were news that shocked people worldwide.

All over the world, people saw nearly identical images of the disasters, but the commentary and contextualization were different in each country. Do children notice something like that? Where do they get their information and what do they think has happened?

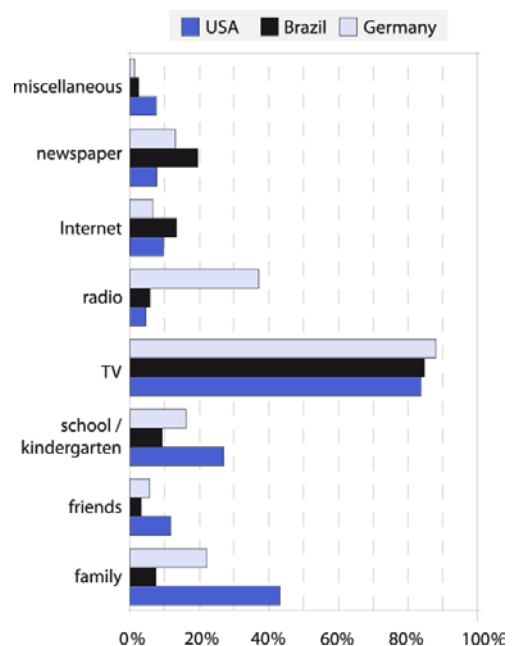
When something as shocking and worrying as the disasters of March 2011 in Japan occurs, something so present in the media worldwide, it is important to think about how children deal with these subjects.

In cooperation with international partners, the IZI conducted a research project in the first 2 weeks after the incidents. The main study with qualitative questioning took place in Germany, the USA, Brazil, Cuba, and Ecuador. In addition there were “picture letters” from 8 further countries (cf. Levi/Götz in this issue) and video statements from 10 countries (cf. Unterstell, 2011). All these show the interest which children worldwide took in the incidents, the things that moved them, and what they would have liked to see on children’s television. Some of the findings are summarized in the following article.

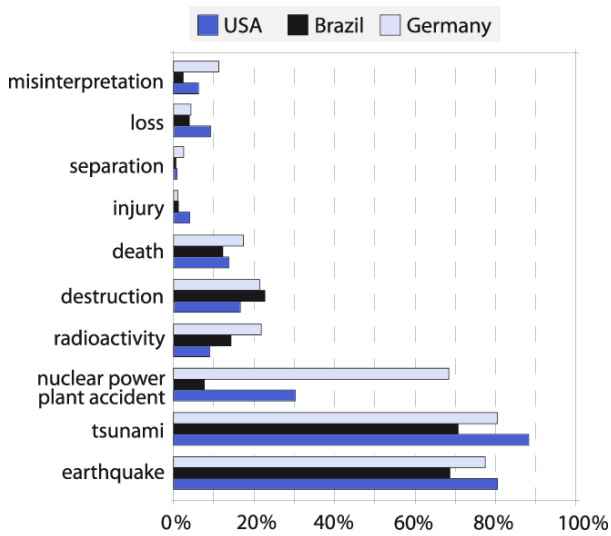
### Method: children recount and draw their ideas about the events

In the main study, children (aged 5 to 13) were interviewed about their knowledge, their emotions, and their perception of the reporting and their wishes for children’s news. The study included 2 creative sections allowing the

children to show through their own artwork how they imagined the events in Japan, and to explain what kind of children’s program on the topic they would like to see. The same questions and creative assignments were used in Germany (n=313), the USA (n=183), Brazil (n=166), and on smaller samples in Cuba (n=29; cf. Ramos/Cruz/Sanabria, 2011a) and Ecuador (n=31; cf. Ramos/Cruz/Sanabria, 2011b).<sup>1,2</sup> The large number of qualitative interviews (in Germany, the USA, and Brazil) made it possible to analyze age-related tendencies and allowed quantitative international comparisons.



Graph 1: The children’s answers to the question “How did you learn about it?”



Graph 2: The children's answers to the question "What happened?"

### Did children know that something had happened?

In all countries, in response to the question "Something has happened in Japan. Have you heard about it?", most children answered "Yes" (over 90 %). Even among 5- and 6-year-olds, a high percentage had heard about the disasters in Japan.

Asked how they had come to know about them, by far the greatest number attributed this to television (over 84 %). In terms of other information sources, the family was identified almost twice as frequently in the US as in Germany, while in Brazil it hardly featured at all. A quarter of the children in the US – and distinctly fewer in Brazil and Germany – first heard of the events while at school or kindergarten (see graph 1).

Similar results were also to be found in Ecuador and Cuba, at least among those children growing up in cities. Children from very rural areas, however, had not heard about it from their parents. Here, an intergenerational relationship focused on authority is dominant, and parent-child communication which includes conversations about politics is very unusual.

### What has happened?

When children draw or paint their idea of what has happened in Japan,

the images most often found in all countries are of a big wave, floods, and destroyed cities. Some, particularly the older children, also draw pictures of the accident in the nuclear power plant. There are few pictures of injured or distressed people. Beside the similarities, which were clearly dominant, there are national tendencies, on both a quantitative and a qualitative level (see graph 2).

### Qualitative differences in ideas about what has happened

#### Children in the USA

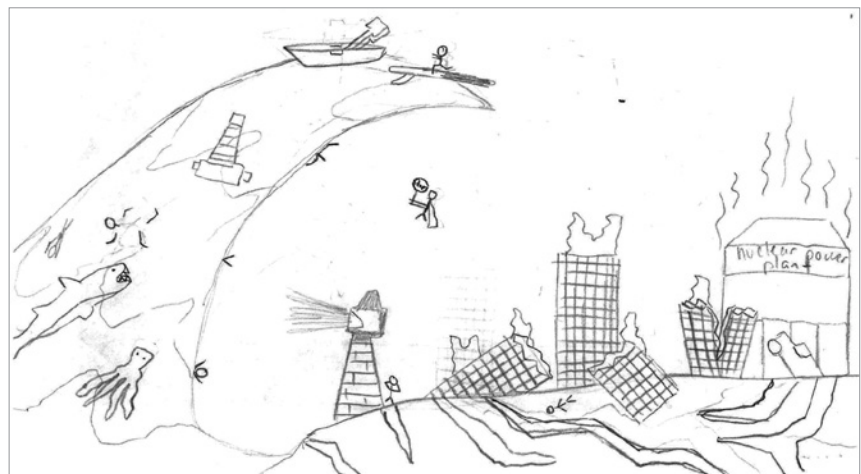
Only in the USA did a few children associate the disaster with a tornado. This has no immediate connection to the events in Japan, but is part of the world experienced by children,

particularly in the American Midwest. On a close analytical examination of both the drawings and the accompanying texts, 3 aspects have emerged as distinctive:

1. **A materialistic approach**, or a focus on destruction to property. Piles of debris are often encountered in the drawings of US children: for example, one drawing by a 9-year-old girl from the central part of the US depicts a building in a "before" scene, and indistinguishable rubble in an "after" scene.

2. **An optimistic approach**, or an effort to find a positive side even to tragic events. Some US children try to draw some positive elements into their pictures rather than just negative images: for example, several drawings feature surfers having fun in spite of the disasters (ill. 1), and one drawing shows a rainbow and has the caption: "With all this water, there are lots of rainbows."

3. **A compassionate approach**, or a focus on the help that can be offered to the Japanese people in the aftermath of the disasters. Many drawings depict Japanese people helping one another or international volunteers (from organizations such as the Red Cross, from other countries such as the USA) helping Japanese people; the text underneath one such drawing reads: "If everyone works together, we can help."



Ill. 1: Ben (13 years old, USA) draws a superhero confronting the tsunami and a surfer riding the big wave

### Children in Brazil

Only in Brazil did children draw rain as part of the disasters. Given that heavy rain or floods are often attended by landslides and natural disasters in Brazil, this is easily understandable.

Noteworthy were references to Japanese culture, its people, and its history. Japanese immigrants began arriving in Brazil at the start of the 20th century, and today São Paulo is home to the largest Japanese population outside of Japan, with a population close to 1.5 million. The influence and heritage of Japanese culture in Brazil was reflected in the drawings of many Brazilian children, who included details such as eye shape and facial characteristics, and traditional clothes and hairstyles (ill. 2). When interviewed, children also mentioned values they most closely associate with Japanese people, including being organized, hard-working, strong, and having an ability to rebuild quickly. In interviews children expressed their concern for the Japanese people and some even talked about friends or relatives who were directly affected by the catastrophe (cf. Lima, 2011).

### Children in Germany

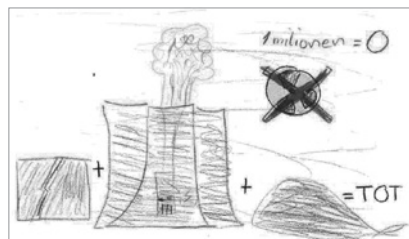
A definite focus, particularly among the older children, is on the Fukushima 1 reactor disaster. The children's pictures show detailed representations of the inside of a nuclear power plant, such as nuclear fuel rods, but also symbolic representations of the nuclear radiation leaking from the power plant. Some drawings include the sign for radioactivity, and some also include anti-nuclear symbols (ill. 3). Other children engage with the topic of radiation and the consequences for humans, drawing people who have been "poisoned", or the "atomic cloud" as a threat to humans.

### Children in Cuba and Ecuador

Unlike children in the other countries, those in Cuba and Ecuador drew many pictures showing trees,



Ill. 2: Nana (7 years old, Brazil) draws people with typical Asian eye shape and traditional clothes and hairstyles



Ill. 3: Hendrik (11 years old, Germany) tries to understand the invisible danger caused by radioactivity

ships, farming, or fish. They were concerned about how the natural environment had been destroyed, and animals and fish had perished in the disaster (cf. Ramos/Cruz/Sanabria, 2011a, 2011b).

### What is an earthquake, a tsunami, a nuclear power plant?

Children in all 3 countries were asked whether they knew the meaning of each of the terms "earthquake", "tsunami", "nuclear power plant". On the first 2 phenomena, positive self-assessment was over 86 % and 78 % respectively.

Children from the USA were particularly likely to feel they knew the answers. However, when children were asked for specifics, distinct differences came to light. In the USA, only a scant third of the respondents

possessed detailed knowledge about earthquakes, and in Brazil even fewer (one fifth), while in Germany the corresponding figure represented fully half the children. Asked what they knew about a tsunami, fewer than a fifth of children in any country possessed detailed knowledge, though here again the German children led the field.

The clearest differences emerged in response to the question "Do you know what a nuclear power plant is?" While in the USA and Brazil only a good third of respondents felt competent to answer, the figure for Germany was 84 %, i.e. over twice as many. Children in Germany were familiar with the concept and with the events surrounding the nuclear accident. Questioned on specifics, the German children proved to include 17 % who felt they knew what a nuclear power plant was, but in fact did not. The proportion of children unable to say anything factual at all about nuclear power plants was 73 % in Brazil and 62 % in the US.

During the days immediately following the events in Japan, children in Germany, relative to those in the US and Brazil, possessed more – and more detailed – knowledge on all 3 topics. What could be the reason?

The likely reason is that neither Brazilian nor United States television (nor that in Cuba and Ecuador) has a children's news program. German children had access to the news program *logo!*, and used it to obtain information (cf. Götz, 2011).

This explanation is supported by media traces of media input in the children's drawings, stemming from *logo!* – for example the depiction of the inner construction of a nuclear power plant. In contrast to the adult news, which was probably much the same all over the world both in visual coverage and in commentary, the children's news explained in detail what an earthquake is, what nuclear power plants are used for, and what nuclear radiation is.

### The kind of reporting that children want

Analysis of the second creative section, in which the children had the chance to show visually and explain verbally what they thought would be appropriate for a children's program about the events in Japan.

#### News presentation and age-appropriate program design

In many cases, the 5- to 13-year-olds interviewed tended to base their notion of good news reporting for children on the presenter. Nora (10 years old, Germany) suggested "a very young woman, because she might understand things more the way children understand them". Alexandra (9 years old, Ecuador) thinks it would be important to have a boy and a girl reporting on the news.

Alejandro (10 years old, Cuba), "I drew 2 people talking in a normal and understandable language for children about Japan", and Sophie (11 years old, Germany) found it important that presenters should "not use super-brainy words, but should present for children, with words that children can really understand".

The children interviewed also considered it important that program design and the presentation of information should be adjusted to the viewers' ages. This means e.g. "that everything is explained using animations, and with lots and lots of pictures and videos" (Simon, 11 years old, Germany). Anna (11 years old, USA) says that she envisions a show in which "someone flies over Japan and interviews a few kids, asking how their life is now. That way, kids can learn about it and help".

When it came to the selection of images, children wanted program-makers to be careful "not to show so many dead people, or children will start to cry" (Jannis, 9 years old, Germany). Like Jannis, many children emphasized that they did not want to see images of dead or injured people, or people in total despair. Olivia (7 years old, USA) found that what was presented on TV was "sad and scary". Collin (13 years old, USA) says that news should present information in a "good way". Otherwise, US kids seemed to have little issue with the images shown, supposedly because of

to have events explained to them by the presenters of preschool television. In the other countries, which had no children's news programs, the children often imagined their fictional television heroes in the role of news presenters.

William (10 years old, Ecuador) could easily imagine the Power Rangers explaining the waves to him, and Martín (10 years old, Ecuador) draws Tinky Winky, the biggest of the Teletubbies, as an intermediary.

In the USA, the children drew Mickey and Minnie Mouse or Tweety as presenters. Mimi (10 years old, USA)

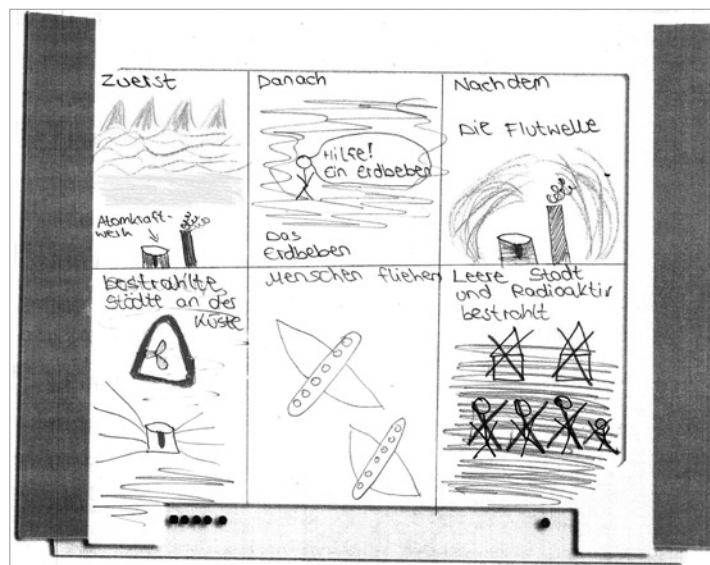
draws Dora (*Dora the Explorer*), and Jackie (10 years old, USA) could imagine Zack and Cody (*The Suite Life of Zack & Cody*) reporting from their cruise ship. Many children from the West coast of the US drew animated, cartoon-like houses, waves, and sun. Colton (13 years old, USA West Coast) drew a show of "puppet news". They believe that these characters would offer a child-friendly approach to news from all over the world. The character most often drawn, however, was Sponge-

Bob. On the one hand "because it attracts children's attention" (Deysy, 11 years old, Ecuador), on the other hand because, in this particular case, his underwater world qualifies him to deliver the content.

#### Facts, background information, and accounts of how people cope

In terms of content, there are 3 things that children hope to see in children's media: facts, background information, and stories about coping. And the 3 elements must be clearly demarcated from each other.

The children would like the facts to



III. 4: Many children like Luisa (10 years old, Germany) want TV to explain the course of events without emotions. Luisa draws 1. Fukushima in order; 2. earthquake; 3. tsunami; 4. nuclear catastrophe; 5. people fleeing; 6. radioactive, empty cities

the large amounts of natural disasters and human violence presented on TV. In Germany, the suggestions were generally close to the reality of children's news programs, and offered improvements to these, e.g. that people from different social backgrounds should also be given a chance to speak, that Skype should be used more, or that particular questions which had not yet been dealt with by *logo!* and *neuneinhalb* should be answered: e.g. "... where the cars that get swept away end up" (Marina, 8 years old, Germany). In some cases preschool children also wanted

be conveyed, for instance as “facts and figures”, without these facts being over-dramatized by use of emotionalized images or language. “They should say exactly how many people died and how many houses were destroyed” (Johanna, 6 years old, Germany). Tom (11 years old, Germany) wanted to know “how high the wave really was”. In other words: children wanted to be told what happened – without emotion (ill. 4). That enables them to put a certain amount of distance between themselves and overwhelmingly powerful images, and to put events in perspective. Children wanted background information that would provide the answers to their many questions about why things happened as they did. Sarah (9 years old, Germany): “They should explain exactly why it all happened.” Other children wanted to know “where the cars are washed away to”, “how that wave could simply destroy the house”, or “how the explosion happened and what all that stuff about radiation means”. Children were asking themselves precise questions: “How could it happen?”, “How does something like that begin?”, “What are the precise causes and effects and event sequences?” – and they wanted to have those questions answered. Simon (11 years old, Germany) suggests explanations might take the form of detailed photographs, “so that you could have a look and see what it’s like on the inside, inside the nuclear power plant, with cameras”. However, children also wanted reporting to include reports of first-hand experience and human stories. People caught up in the events should describe what happened to them, and how they overcame difficulties. Martin (10 years old, Germany): “There’s this guy in Japan being interviewed, and in the background you can see wrecked houses and a sniffer dog looking for people underneath the rubble.” The specific wishes expressed show that what children want is accounts of how people cope.

## Conclusion

It would be unrealistic, in these media-saturated societies of ours, to seek to shield children from incidents as omnipresent in the media as these were. Even children of kindergarten age register natural and technological disasters currently dominating media news reporting. Like adults, they are emotionally moved by these reports, and are stimulated to reflect upon them. Especially when unable to comprehend and assess the relevance of the TV images to their everyday life, children may experience fearfulness and insecurity as a result. To deal with this, they need age-appropriate reporting that provides explanations and names, refrains from gratuitously emotionalizing the content, and, by providing information, makes it possible to assess dangers. For (older) schoolchildren in Germany, the children’s news program *logo!* provided a valuable source of information. As a result, they enjoy a distinct advantage over children in the United States and Brazil (not to mention a large number of other countries). However, with regard to younger schoolchildren and children under school age, there are virtually no ideas at present on how to handle disaster reporting appropriately. This study shows that many (though not all) children want information and want to be able to understand frightening incidents and set them in perspective. It is our responsibility to support this at every level. ■

## NOTES

<sup>1</sup> The international surveys were conducted by Pablo Ramos Rivero, Yuliet Cruz, and Eileén Sanabria in Cuba and Ecuador, by Ana Lima in Brazil, and by Diana and Sorin Nastasia in the USA.

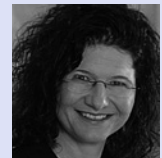
<sup>2</sup> And an explorative sample in Sweden ( $n=10$ , cf. Uppal, 2011) and Canada ( $n=9$ , cf. Boivin et al. 2011).

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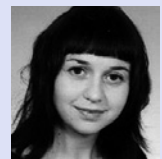
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