

Framing an announced tragedy: frame diversity on Mariana's disaster

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Abstract

This article analyzes the diversity of the available media frames about the tragedy in Mariana. Based on Entman's (1993) framing and Porto's (2007) frame diversity concepts, we propose a content analysis of the materials presented in several media outlets, namely a local media (Estado de Minas), three online portals dedicated to journalism (G1, R7, Uol) and three outlets of national reach (Folha de S. Paulo, O Estado de S. Paulo, O Globo). We opted by a convenience sample that seeks to evaluate immediate and subsequent repercussion. Our analysis reveals a coverage that privileges official sources, leaving little room for affected people's perspective or even for "public interest" frames.

Keywords: Mariana's environment disaster. Framing. Frame Diversity. Agenda-Setting. Communication Theories.

Introduction

On 5 November 2015, in the city of Mariana (in the state of Minas Gerais – Brazil), the Fundão dam, built to hold back mining waste material produced by Samarco (a company directly connected to Vale and BHP Billiton), ruptured, spilling 32 million cubic meters of iron ore waste material in the subdistrict of Bento Rodrigues and surrounding areas. The waste material traveled 640 kilometers down the river Rio Doce and discharged in the municipality of Linhares, on the shores of the Espírito Santo state. Besides the almost complete devastation of Bento Rodrigues and other seven communities and districts nearby, the passage of the toxic sludge caused enormous human and environmental impact, namely the death of 17 people (and two missing people), the pollution of extensive stretches of Rio Doce (bringing about the direct or indirect death of 11 tons of fish), the destruction of 1.5 thousand hectares of vegetation, and the dislodgement of 329 families (1,265 people), directly affecting the economic activity of 1.249 fishermen¹.

1 Available at: <<http://especiais.g1.globo.com/minas-gerais/2015/desastre-ambiental-em-mariana/1-mes-em-numeros/>>. Accessed on: 18 December 2016.

There is no overstatement or excessive adjectivization when one acknowledges that it was the worst environmental disaster in Brazilian history. As such, this event naturally gave rise to intense coverage by the great vehicles in Brazil. However, more than the exceptionality of the object per se, what called our attention during the event was the diverse criticism directed toward those vehicles. Initially, because the coverage did not reveal the fact that Samarco is controlled by Vale and BHP Billiton, which would be supposedly explained by economic relationships (i.e., these companies' money for publicity)². Then, it was because the coverage was neither sufficiently deep nor fast enough when describing the event, its causes and consequences³. And finally, because of the unfortunate coincidence of the attack to Paris by ISIS at the same period⁴, which was highlighted by Brazilian journalism, generating severe criticisms directed to both the great vehicles and the Brazilian public themselves (i.e., they were extremely worried about the tragedy in Paris while there was a tragedy happening in national territory), especially on online social media.⁵ These criticisms help us demonstrate that not only the tragedy itself, but also the activity of Brazilian journalism was in the limelight.

As we all know, in its daily activity, journalism tends to privilege the perspectives, sources and frames of official and/or powerful sources, consequently disfavoring the perspectives of less powerful actors, as is the case with both collective and individual actors in civil society (NASCIMENTO, 2010; PORTO, 2007). Because it was the worst environmental tragedy in Brazilian history, one starts with the assumption that journalistic coverage would give more opportunities to voices and frames associated with the civilian perspective, with a tendency to break with the daily practice of emphasizing official sources' and/or more powerful actors' views. According to Schudson (2008), it is precisely in moments of great events and national tragedies that journalists can be more creative, ignoring the patterns of their routines of production.

Based on the notion of diversity in informative frames, developed by Porto (2007), and the framing analyses by Entman (1993), this study aims to carry out a first assessment of the main frames available in a variety of vehicles, so as to encompass a local means of communication (*Estado de Minas*), three portals exclusively dedicated to online journalism (*G1*, *R7*, *Uol*), and other three nationwide vehicles (*Folha de S. Paulo*, *Estado de S. Paulo*, *O Globo*).

2 For example: <<http://www.pragmatismopolitico.com.br/2015/11/da-lama-a-ordem-mariana-e-o-jornalismo-que-nao-da-nome-aos-bois.html>>. Accessed on: 18 December, 2016.

3 Example: <<http://www.tijolaco.com.br/blog/desastre-em-mg-so-o-estado-apura-e-porque-o-terremoto-e-causa-improvavel/>>. Accessed on: 18 December 2016.

4 The attack left 127 dead people and other 180 injured.

5 Available at: <http://www.bbc.com/portuguese/noticias/2015/11/151117_ataques_paris_redes_mariana_lab>. Accessed on: 18 December 2016.

Concept and variety of frames

Although framing is frequently presented as an extremely fragmented concept, we believe that a whole set of studies and reflections has already dealt with the challenge of polishing its theoretical outlines, thus providing the current perspectives in the field (MENDONÇA; SIMÕES, 2012; POZOBON; SCHAEFER, 2015; REESE, 2001; VIMIEIRO; DANTAS, 2009).

The division proposed by Mendonça and Simões (2012) seems to be suitable to summarize the majority of existing variations. According to those authors, framing studies could be divided into three groups. The first one, based on the Goffman's concept, would comprise micro-sociologic studies focused on the analysis of the interactive situation (i.e., how metacommunicative messages participate in the definition of messages in interactive situations). The second one, which is particularly based on Entman's framing perspective, "includes research that adopts framing in order to carry out discursive content analysis that explores the frames and saliences produced by enunciations" (MENDONÇA; SIMÕES, 2012, p.191 – Our translation). Finally, the third group would comprise analyses of framing effects, that is, the actual measuring of the effects that frames are capable of generating on the public (almost inexistent in Brazil, being more visited in media effects studies in the United States)⁶.

This paper focuses on the second line of research, which, in our opinion, is the most visited in framing studies in Brazil, as well as the closest to Political Communication research, as defined by Mendonça and Simões:

The idea is to analyze enunciations and discourses of varied natures, thus apprehending how reality is framed by them. In the core of this kind of operationalization, there is a concern to understand how discourses establish frames of sense-making, framing the world from specific perspectives. The aim is to think how discursive content itself creates a context of sense, calling out interlocutors in order to follow a certain interpretive track. (MENDONÇA; SIMÕES, 2012, p.193 – Our translation).

According to this view, Entman (1993) says that it is impossible to talk about framing when the notions of salience and selection are cast aside. He defines the act of framing as follows:

To frame is to select some aspects of a perceived reality and make them more salient in a text, promoting a definition of a specific problem, a causal interpretation, a moral evaluation and/or a recommendation for the approach to the described item. (ENTMAN, 1993, p.52).

⁶ A simpler alternative only separates the framing analysis in informative means of communication from the framing analysis of the public (see VIMIEIRO; DANTAS, 2009).

Therefore, that author indicates four characteristics that are present in framing: a frame diagnoses a problem, indicating what an agent is doing; it indicates the causes of the problem, ascertaining the forces underlying the situation; it makes moral judgments, assessing agents and the effects of their attitudes; finally, it suggests solutions, foreseeing possible effects of the problems. Despite identifying these four functions in a picture, Entman (1993) says that a text not always presents all of them.

Salience, a key aspect that Entman (1993) proposes in order to understand the workings of framing, means to make information more relevant and apt to be conveyed to the public. This can be done through the placement of certain information in a text, its association with cultural aspects, or even its repetition in a message. However, applying a frame is not only about giving greater salience to certain aspects. Framing may also involve the omission of some points. Hence, receivers' reaction changes if they seek more than one source of information, which offers different frames about the same topic or event (ENTMAN, 1993). According to that author, there is usually a homogenization of the approach to news, because approaching information differently from other vehicles could mean losing credibility or turning against elites.

Consequently, media or informative framing, by its turn, would consist of persistent patterns of presentation, selection, emphasis and exclusion of information, which allows journalists and media professionals to process, quickly and routinely, high levels of information for their public (GITLIN, 1980 apud VIMIEIRO; DANTAS, 2009). Therefore, matters of organization, structure and persistence of frames become important for an understanding of this kind of framing (PORTO, 2007; REESE, 2001).

In this perspective, it is worth using the notion of informative framing diversity by Porto (2007). According to him, it is not necessary to adopt a view of a population that lack knowledge and need high levels of political information and maximum diversity of frames in order to keep updated. On the other hand, Porto maintains that there is indeed a need for a minimum diversity of available frames, allowing citizens to understand the different angles, perspectives and issues involved in a piece of news or an event. Accordingly, that author points out that we cannot ignore the relationships of power that directly affect the choice for certain frames, that is, how certain powerful groups (political and economic elites) are more easily covered by the media, besides receiving favorable frames.

For the classification of the framing diversity available in a given media coverage, that authors proposes a typology, namely: 1) *Restrictive*, when a single interpretive frame of the event or topic is presented; 2) *Plural-closed*, when there is more than one frame available, but frames are hierarchically arranged so that a certain frame is more emphasized than the others, and it is presented as being more truthful or reliable than the others; 3) *Plural-open*, when more than one frame is presented, but all of them are approached within an indefinite relation of which interpretation is preferred; and 4) *Episodic*, when interpretive frames are presented and the news stories take on a descriptive tone.

Therefore, initially, this paper will analyze individual frames based on the characteristics listed by Entman (1993); next, it will carry out a general analysis, based on Porto (2007), of the diversity of informative frames available in the coverage of the tragedy in Mariana.

Method

In order to apply the aforementioned frames, this research focused on news stories from Brazilian news portals. Some of them, such as *Terra*, would be included in the empirical corpus, but they were left out because they only issued news stories from agencies, which would be out of tune with the focus of this paper. The purpose here is to check how each portal framed the topic, and by using news stories from agencies, the framing would become standardized for all of the vehicles.

Accordingly, texts from seven Brazilian news websites were gathered: *G1*, *R7*, *Uol*, *Folha de S. Paulo*, *O Estado de S. Paulo*, *O Globo*, and *Estado de Minas*. The aim was to analyze texts from a variety of vehicles, so as to encompass a local means of communication (*Estado de Minas*), three portals exclusively dedicated to online journalism (*G1*, *R7*, *Uol*), and other three vehicles that gained prestige for their print editions, but which also invest in online news stories (*Folha de S. Paulo*, *Estado de S. Paulo*, *O Globo*). We chose to use a convenience sample which was short enough to have its contents analyzed within our time limit, while being focused on “key” days of coverage, namely: the day of the accident (5 November, 2015), the following day (6 November 2015), a week later (12 November 2015), a month later (5 December, 2015), two months later (5 January, 2016)⁷, and a year later (5 November, 2016)⁸. Our goal was to obtain an overview of the online media coverage about the topic, especially in order to notice alterations and the persistence of news stories.

As it is peculiar to the internet, websites issued several news stories about the topic daily. Therefore, the longest news story on the day of the accident was the only one selected, as it was assumed to provide the greatest number of details of what happened in Mariana. It is important to point out that the unit of analysis corresponded to each part of the news story limited by intermediate titles. Thus, if a news story had two intermediate titles, for example, it was divided in three units of analysis (considering the first part as an introduction, and the other two as segments).

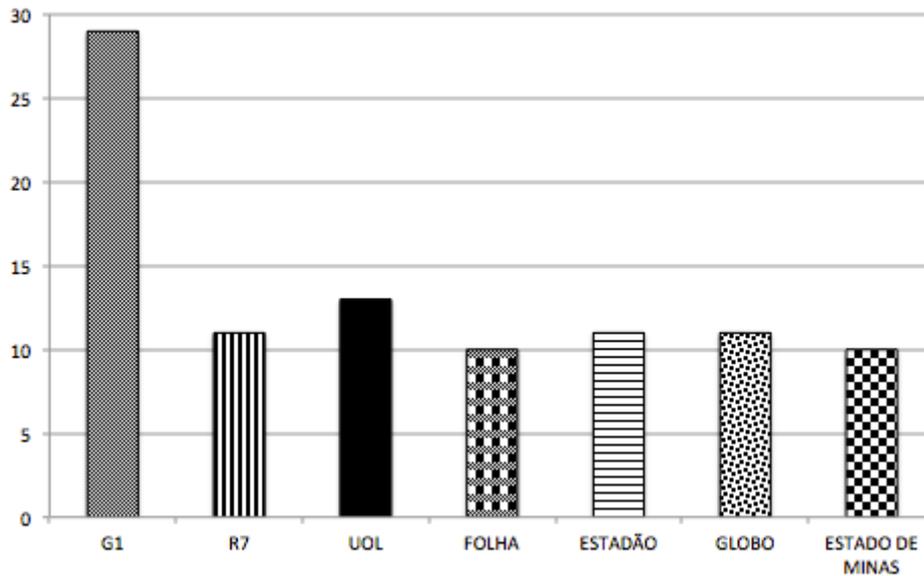
A relevant aspect in the comparison of the vehicles is the number of units of analysis in the news stories gathered from each of them. The segmentation of a text in intermediate titles is understood as an indication of a more detailed approach to the subject dealt with

⁷ The vehicles *O Globo* and *O Estado de S. Paulo* did not issue any news stories on the subject that day; that is why they have one text less in the corpus.

⁸ *R7* portal published news stories on the tragedy in Mariana only a year after the event, but its texts were from news agencies. Thus, the authors chose to use the first news story on the topic after this date, which had been written by the portal itself (18 November, 2016).

in that unit. As Graph 1 shows, this segmentation was very similar in all of the vehicles, except for *G1* portal, which revealed a high level of segmentation. This indicates that the portal tried to encompass more topics related to the disaster in a same text, while the others prepared news stories which were more focused on specific issues.

Graph 1 – Number of unities per vehicle



Source: Research of the authors (2016).

The highly-segmented news story from *G1* portal was published in the on the day that the tragedy completed one year and contained ten units of analysis. In its text, besides the contextualization of the event, the portal dealt with environmental issues, civilian matters, and the life stories of those who were affected by the rupture of the dam. The other portals showed a maximum number of four units of analysis per text. Moreover, when it came to the size of each unit, portals also had a similar behavior. After the calculation of this quantitative aspect of the news stories, their contents were analyzed through the variables proposed by Entman (1993)⁹. Afterward, comparisons were carried out in order to check the existing framing diversity, as suggested by Porto (2007).

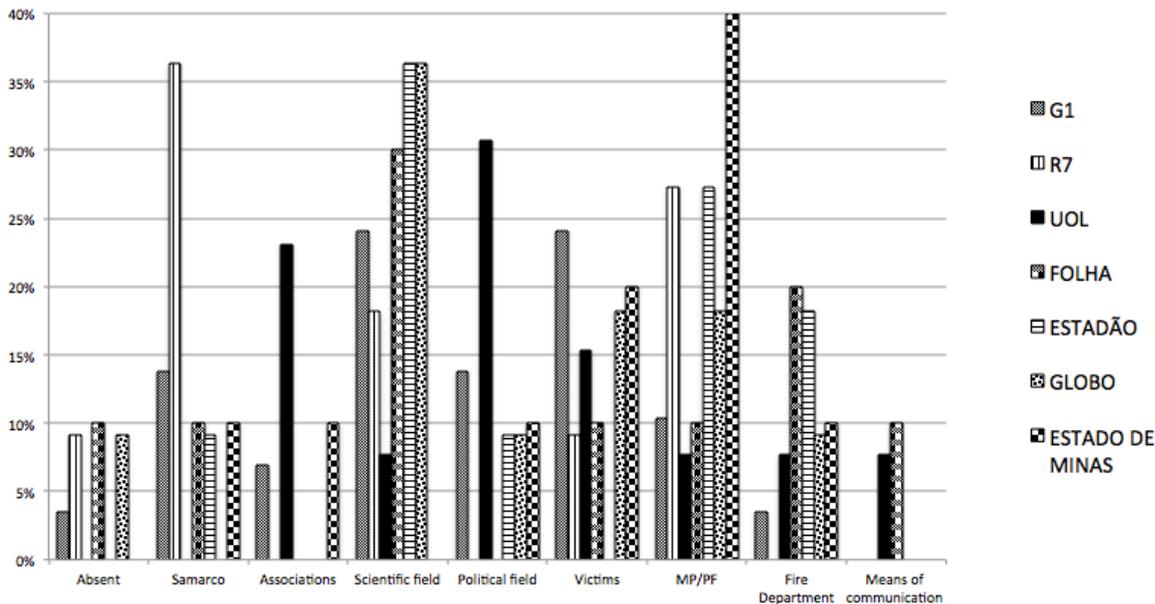
Results

For the first variable, which was the definition of the problem, the segmentation proposed by Vimieiro e Maia (2011) was chosen. Thus, at first sight, it can be seen that

⁹ The detailed book of codes can be Accessed on: <goo.gl/xM9TRo>.

the most recurrent sources for the news stories were: [1] Samarco; [2] Associations/labor unions; [3] the Scientific field; [4] the Political field; [5] Victims/relatives; [6] Public Prosecutor’s Office [MP]/Federal Police of Brazil [PF]; [7] Fire Department, and [8] Means of communication. Graph 2 indicates the percentage¹⁰ of each actor’s appearance in each vehicle. When the text was essentially descriptive, the option “absent” was selected.

Graph 2 – Actors Involved



Source: Research of the authors (2016).

As it can be seen from the graph, there is no pattern among the vehicles, but they show similar points in relation to the predominant actors in the texts. The participation of scientific and technical experts, for example, is relatively balanced among the portals of print newspapers. Among the others, only *G1* highlights this kind of source, while *Estado de Minas*, for example, has no texts in which these authors predominate. Another noticeable fact is the high usage of sources related to Samarco mining company by *R7* portal, – most of the units of analysis, 36.4%, revealed a predominance of that actor.

On the other hand, the Public Prosecutor’s Office’s and the Federal Police of Brazil’s participation stood out in *Estado de Minas* portal, but it was slighter in the others. Finally, it should be highlighted that only *G1* gave more attention to the tragedy victims and their relatives. In the other vehicles, there was no significant participation of such authors.

¹⁰ Decimal figures were rounded up.

In order to complete the examination of the definition of the problem, the identification of subtopics within the units of analysis has to be added. The codes developed for this step were: [1] Economy; [2] Environment; [3] Citizenship/Rights; [4] Life stories; [5] Contextualization of the event; [6] Environmental crime; [7] Ongoing investigation; and [8] Policy.

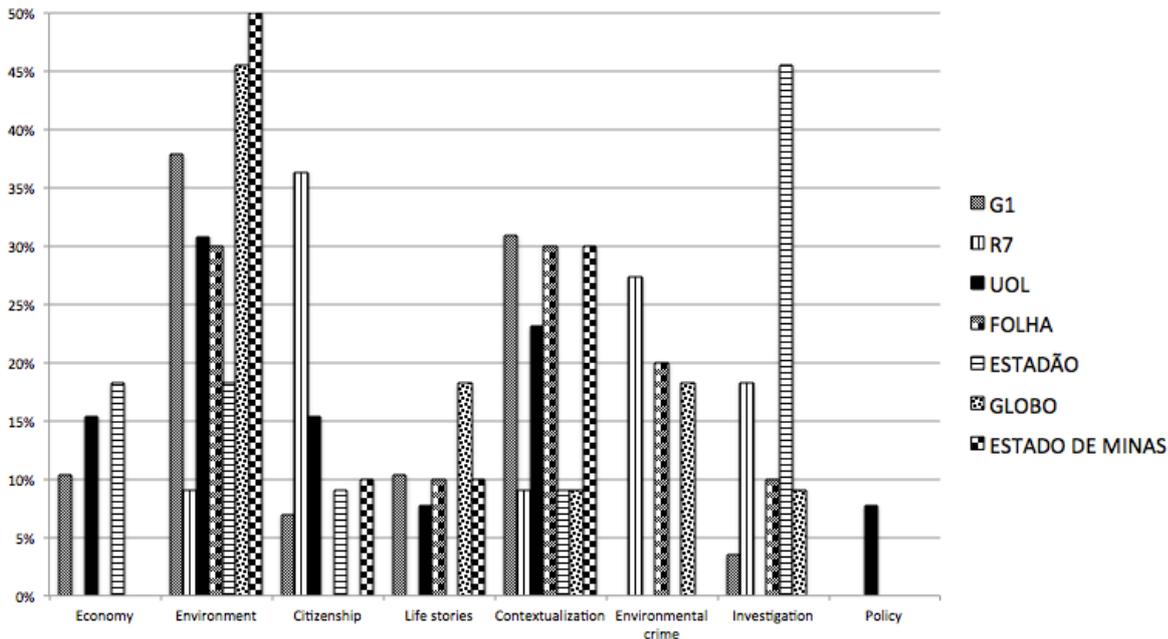
As to the predominant subtopics, number two, Environment, may be highlighted, since a significant part of the vehicles approached it in a relevant way. The websites that dealt the most with this topic were *Estado de Minas*, *O Globo*, and *G1*. The first newspaper, for example, published a news story on 12 November 2015 (*Company guarantees stability of Germano Dam, but the Public Prosecutor's Office demands a risk report*), which approached the possibility of another dam rupturing in Mariana surroundings and its consequences for the region and the search for survivors.

The portal that gave the most prominence to the issue of citizenship and the rights of those affected by the rupture – code [3] – was *R7*. Its approach to the event reinforces the relationship between the facts and the rights that were violated. This happened in the issue published on 5 January 2016, which informed of a residents' protestation demanding the installation of a warning mechanism in case of a new rupture.

However, this subtopic was not significant for the other vehicles – which suggests that the coverage focus was not on the consequences of the rupture for the population, but on other aspects of the tragedy. *Uol* and *Folha de S. Paulo*, for their part, also highlighted the environmental issue and the contextualization of what happened in Mariana. Finally, it is worth pointing out the emphasis *O Estado de S. Paulo* gave to the subtopic of the ongoing investigation, as opposed to the others. The approach to life stories, as far as the accident victims and their relatives are concerned, is not present in this vehicle.

Results for the classification into subtopics are synthesized in Graph 3.

Graph 3 – Subtopics

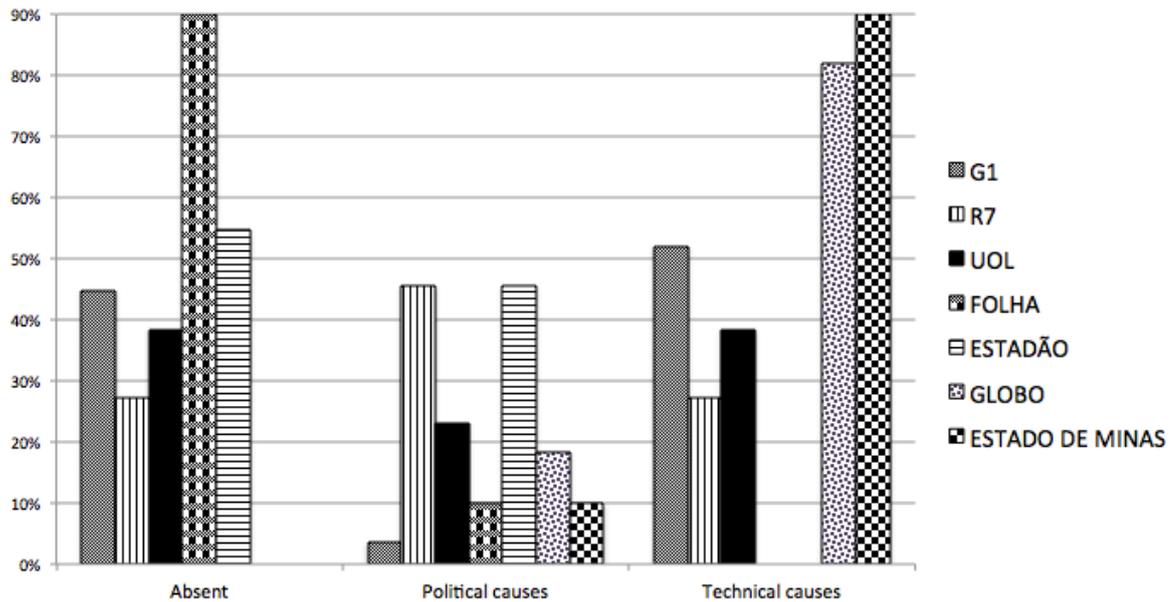


Source: the authors (2016).

Proceeding with the analysis proposed by Entman (1993), the next step was the identification of the problems listed. In this variable, two possibilities were formulated: [1] political causes, and [2] technical causes. As Graph 4 below shows, the absence of causes of the problem was recurrent in the texts analyzed, especially in those from *Folha de S. Paulo*, which did not indicate causes of the problem in 90% of the units of analysis.

O Estado de S. Paulo did not present causes in a significant number of units of analysis either: 54.6%. The other units, however, highlighted political causes without indicating technical ones. This happened, for example, in the news story published on 5 November 2016, which pointed as the main cause a dispute between Judiciary authorities to decide which of them had jurisdiction to judge lawsuits related to the disaster. *R7* also highlighted political causes, showing a balance between the absence and indication of technical causes. In the news story published on 6 November 2015, for example, the environmental crime prosecutor’s opinion about lapses in the environmental licensing process is in the limelight: “Ferreira also criticized the granting of licenses by the State. According to the prosecutor, the government does not supervise companies after granting them permission to operate”.

On the other hand, *Estado de Minas*, *O Globo* and *G1* highlighted technical causes. In the only unit of analysis that points to political causes, *Estado de Minas* portal said that Samarco mining company was using judicial maneuvers in order to exempt itself from responsibility for the disaster. Lastly, *Uol* portal showed balance between the two codes.

Graph 4 – Causes

Source: Research of the authors (2016).

As to moral judgments present in the corpus, two possibilities were found: [1] Samarco's negligence, and [2] State's failure to punish and supervise. A significant part of the texts did not include moral judgments. The brevity of the news stories published online might explain this behavior, since the coverage need for real-time update renders deeper analyses of the events more difficult.

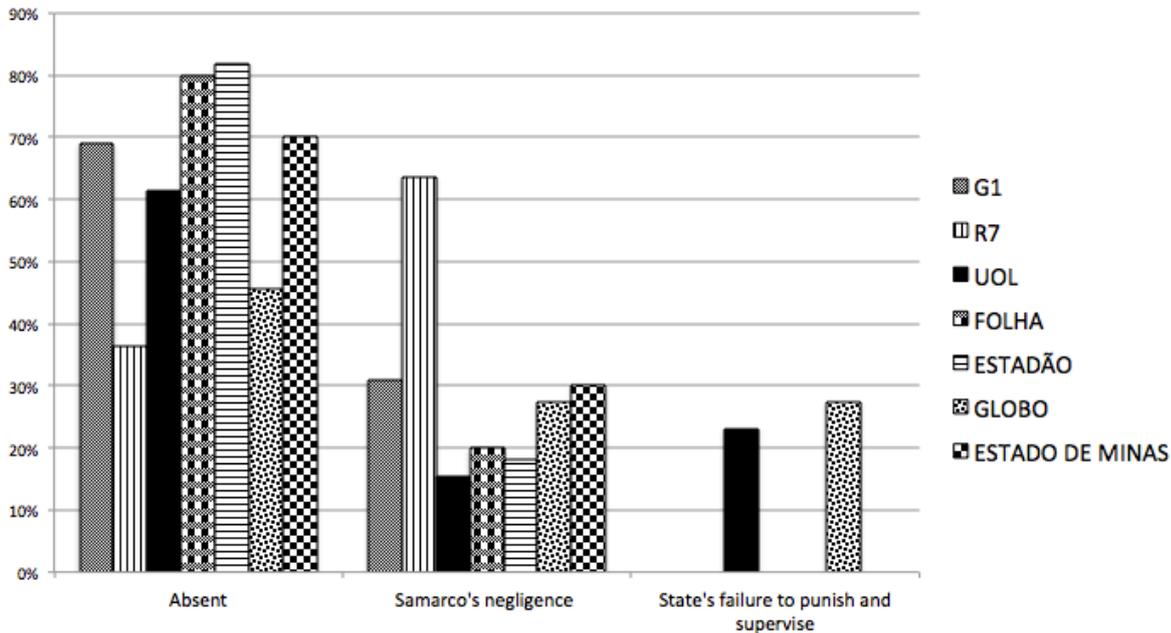
When present, moral judgments focused on code [1], Samarco's negligence, as Graph 5 shows it. In a news story from *Estado de Minas*, published on November 5, 2016 (*Public Prosecutor's Office wants to ban dams that are similar to the one that ruptured in Mariana*), there is this sentence by Carlos Eduardo Ferreira Pinto, public prosecutor: "The only thing Samarco does well is to defend itself in lawsuits, submitting dilatory appeals to higher courts so as to hamper indemnification and compensation. We cannot put in the hands of offenders the decision on how to restore the environment and indemnify those who were affected". Here, it seems that the choice of sources' declarations itself is the means through which journalists make judgments regarding the event. In the news story published on 6 November, 2015, by R7 portal, there is another example, in the voice of the prosecutor who is in charge of the case: "A mining waste dam, a structure of this magnitude, it does not rupture by accident. Even if there is a natural fact, it is the entrepreneur's legal duty to take measures that assure society's safety".

O Globo also uses this code when approaching the tragedy, a year after it took place (in *Mariana disaster is still alive*), highlighting the mining company's inertia toward the

damage caused by the rupture of the dam. “Samarco’s works and interventions so far have been considered insufficient and late by Ibama¹¹. Most of the affected locals are in the same condition as they were left by the sludge: 71% of the visited sites lack ground preservation, 62% lack drainage, and 53% lack contention”.

O Globo, however, also made use of the moral judgment of State’s failure to punish and supervise, and *Uol* did the same. The news story published on 5 December, 2016 (*Pollution crime does not send people to jail in at least 12 states*) criticizes the way environmental crimes are treated by Brazilian law: “The concern is that impunity in the criminal sphere becomes what I call the pedagogy of evil. In this case, the idea that disrespect for the environment is not a problem’, deplores the Prosecutor of the Republic [Eduardo Santos de Oliveira]”.

Graph 5 – Moral Judgments



Source: Research of the authors (2016).

Finally, the solutions presented in the news stories could be grouped together as follows: [1] Improving supervision apparatus; [2] Providing victims with financial support; [3] Investing in other sources of income for Mariana (so that the city is not dependent on mining only); and [4] Demanding reparations from Samarco.

11 Ibama is the acronym for the Brazilian Institute of Environment and Renewable Natural Resources.

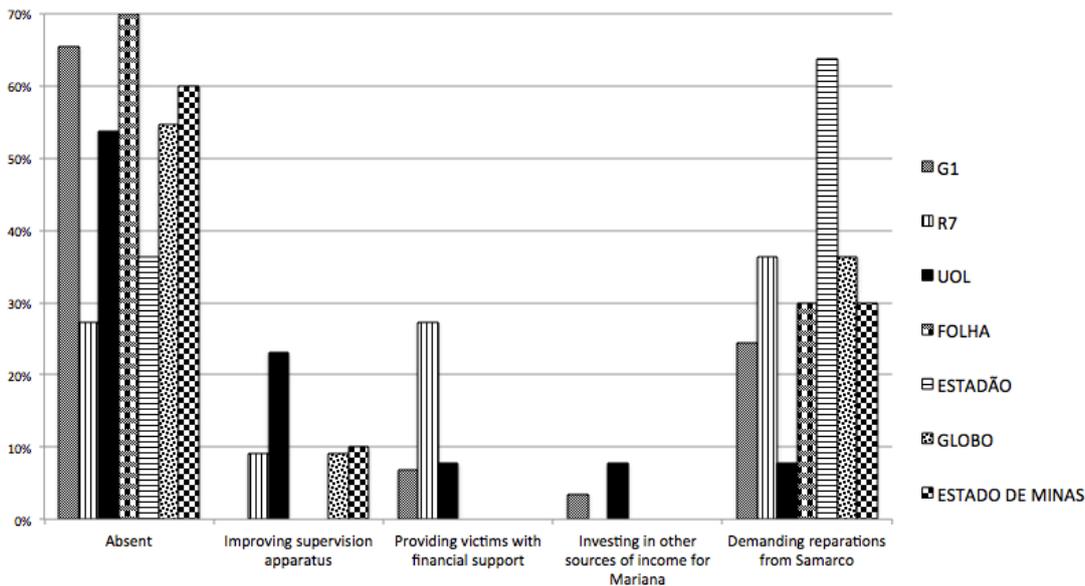
As data on Graph 6 reveal, most of the units of analysis in this category, as was the case with the previous variable, do not point to solutions. Except for *Uol*, which highlighted the improvement of the State's supervision apparatus, code [4] – Demanding reparations from Samarco – predominated in the other vehicles. The result seems to be aligned with the previous category, in which the most common judgment was exactly the mining company's responsibility for the events in Mariana.

R7 portal, for example, in a news story published on 5 January, 2016, brings the following excerpt: "89% of Brazilians consider Samarco, which is controlled by Vale and BHP, the main responsible for the tragedy". The financial support for victims also appears as one of the solutions indicated by *R7*, as illustrated in the following excerpt, published on 12 November, 2015: "Samarco and its controllers committed themselves to help 'rebuild' the area destroyed by the mining waste. The companies promised to create an emergency fund 'for the rebuilding actions and to help the families and communities that were affected'".

G1 and *Uol*, on the other hand, mentioned, but not frequently, the need for investment in other sources of income for Mariana. That is the case with the news story published on 12 November, 2015 by *Uol* portal, which described the following opinion: "If the suspension of the mining company's activity is maintained, Camello [former mayor of Mariana] says the municipality will need financial help from state and federal governments".

G1, in the few news stories that positively satisfied this variable, also privileged the demand for measures on the part of the responsible company. *Uol*, for its part, chose to recommend the solution that involved the improvement of supervision apparatus, and did it more frequently. The news story posted on 5 November, 2016 (*Federal Public Prosecutor's Office points to risks in half the Brazilian dams*) is an example, and it ends with the following remark: "We learnt some lessons from this episode and some of them are that we need to strengthen our supervision agencies and improve our legislation. These are extremely necessary actions, and the Ministry of Environment is structuring itself and taking comprehensive measures in order to supervise dams".

Graph 6 – Solution



Source: Research of the authors (2016).

4. Analysis of results

From the results obtained, we analyzed how the coverage of the Mariana tragedy developed throughout time in each chosen vehicle. The table below provides an overview of the comparisons, bringing the predominant subtopic for each date.

Table 1 – Coverage as time went by

	On the Day	Following day	A week later	A month later	Two months later	A year later
<i>G1</i>	Contextualization of the event	Contextualization of the event	Environment	Life stories	Economy and the environment	Environment
<i>R7</i>	Contextualization of the event	Environmental crime	Citizenship/ rights	Environmental crime, ongoing investigation	Citizenship/Rights	Ongoing investigation
<i>Uol</i>	Contextualization of the event	Environment	Economy	Citizenship/ Rights	Life stories	Environment
<i>Folha</i>	Environment	Contextualization of the event	Environmental crime	Ongoing investigation	Environment	Environmental crime
<i>Estadão</i>	Environment	Ongoing investigation	Environment	Contextualization of the event	–	Economy
<i>O Globo</i>	Contextualization of the event	Life stories	Environment	Environmental crime	–	Environment
<i>Estado de Minas</i>	Contextualization of the event	Contextualization of the event	Environment	Life stories	Citizenship/ Rights	Environment

Source: Research of the authors (2016).

As expected, soon after the rupture of the dam, the predominance was of texts that detailed the event. Only *Folha de S. Paulo* and *O Estado de S. Paulo* showed, right from the start, news stories that focused on the environmental damage caused by the sludge. On the day following the tragedy, however, more substantial differences in the vehicles' behavior began to appear. The only one to approach the event as an environmental crime from the beginning was *R7* portal, while this frame took longer to appear in the other vehicles (*O Globo* and *Folha de S. Paulo*) or it was not registered (*Estado de Minas*, *O Estado de S. Paulo*, *Uol* and *G1*).

It is also noticeable that, at a certain distance from the event (over a week after the disaster), the predominant frames focused mainly on the environmental issue, leaving problems related to the tragedy victims on the background. Here, the consequences of environmental problems in population's life were not disregarded, but the texts did not approach such damage in depth. Despite blaming the mining company and highlighting the importance of investigating the case, the news stories did not give careful attention to the problem of families that were homeless because of the rupture of the dam, or those people who lost their means of support due to the leaking of the sludge.

Furthermore, the table shows that two portals did not publish news stories during the period of two months after the event, which indicates a declining interest in the topic as time went by. Again, there was no homogeneity among the other portals that presented news stories on that day, each vehicle emphasizing different topics.

A year after the event, portals were not unanimous in the frames used to approach the disaster. The environmental frame, however, stood out in four publications. The choice of this frame indicates that the environmental implications seemed to be more relevant. There were also vehicles that gave priority to the ongoing investigation, the environmental crime aspect, and an economic stance.

Consequently, the coverage offered little space for survivors' personal stories, and more importantly, for Samarco's responsibility toward these people. Therefore, the emphasis was on the environmental consequences of the disaster and the company's negligence in the event rather than on the abandonment of people who lost their homes with the rupture of the dam.

Except for the day of the accident, when the choice for the contextualization of the event seemed to have been the preferred way of informing the public who turn to news websites in order to be updated, the appearance of the frame contextualization of the event is an indication of the superficiality of the coverage, which prefers to just recapitulate facts instead of approaching the event with new data or information that deepens the public debate about the tragedy.

Besides, when framing life stories, the vehicles privileged victims' relatives' long narratives, but they did not associate them with the mining company's responsibilities.

That was the case with *G1* portal, which dedicated an extensive news story to each of the victims' stories (*Victims' families of the Mariana disaster talk about loss and longing*, published on 5 December 2015), although it only focused on their personal aspects. The approach of this frame, thus, seems to be rather a way of moving readers and bringing them closer to the incident than a way of giving voice to relatives of those who disappeared or lost their homes to the sludge.

Much of the predominant approach that deals with the environmental aspect of the event as an environmental crime was influenced by the local Public Prosecutor's Office, which held press conferences in order to inform about its work in the Mariana case, and seems to have been an agent that significantly arranged for the journalistic coverage. In this aspect, the coverage seems to follow a path that literature has already pointed out (NASCIMENTO, 2010), which is the dependence on investigative authorities, especially on members of the *Parquet*, for its news stories. In the Mariana episode, exclusive firsthand information apt to bring about investigation did not stand out. On the contrary, the news stories analyzed here always conveyed data brought by the parties, without any investigation other than the officially carried out.

As to the expectation of a variety of interpretive frames available (PORTO, 2007), it is possible to say that the coverage of the Mariana disaster was insufficient when seen from the civilian standpoint. Even with some emphasis on the environmental damage, ultimately, the texts did not approach those who were directly affected by the tragedy – people who lost their lives, their possessions, and also their income because of the rupture of the dam.

Accordingly, the Mariana coverage can be classified as *Plural-closed*, in conformity with the typology proposed by Porto (2007). There is more than a single frame, but one can notice a certain hierarchy of them. Also, as it was pointed out, a reasonable number of frames that could be considered of “public interest” were not available.

Conclusion

This paper assessed the journalistic frames present in the coverage of the Mariana tragedy by seven online vehicles, namely: *G1*, *R7*, *Uol*, *Folha de S. Paulo*, *O Estado de S. Paulo*, *O Globo* and *Estado de Minas*. Based on the framing perspective by Entman (1993), some of their main characteristics may be seen. Firstly, most of the speaking space was given to data from different official sources, such as scientific and technical experts, including sources associated with Samarco mining company, and even technicians in the *Parquet* and the Federal Police of Brazil. Secondly, the most highlighted subtopic in the coverage can be defined as “environmental effects of the dam leak”. Yet, the greatest part of the coverage did not focus on showing the causes of the problem, making moral judgments, or presenting solutions for the problem at hand. When these subtopics were present, they

pointed to Samarco's responsibility/negligence in the case (and the need for it to repair the damage it caused) and/or a need for improving the State supervision in similar areas.

As it was already said, Schudson (2008) argues that, in large national tragedies, journalism is given more freedom to approach facts with more creativity, being less attached to productive routines, and giving more emphasis to human interests. However, as this paper shows, one can notice that, except for the immediate space given to victims' families and people affected by the accident, the civil sphere had little speaking space, and did not reach prominence in any aspect. Traditional press (even online portals) maintained its pattern of preferring official sources and frames instead of the civilian perspective (NASCIMENTO, 2010).

In Porto's typology, this indicates a *Plural-closed* coverage, for there is not a predominant frame, but a reasonable number of other perspectives of public interest were also not available. Even with the emphasis on environmental damage, the texts did not approach those people who were directly affected by the tragedy – the people who lost their lives, their possessions, and also their income because of the rupture of the dam.

Therefore, results indicate the importance of framing studies. Given our choice of a more qualitative sample of the coverage and the focus on online vehicles (where texts are naturally shorter), future studies could check if there were more frames from a civilian perspective available in other media formats.

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