Terrorism and Reporting on Immigration in the Media: Evidence from France

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August 16, 2022

Abstract

In this article, we explore the role of terrorism on mass media reporting of immigration and investigate how media coverage of immigration following terrorism can affect vote for anti-immigration parties. Using natural language processing (NLP) methods to analyze French news articles about immigration before and after different waves of terrorist attacks, we test whether an extreme event like the terrorism is causing a shift in both the intensity and the tone of reporting about immigration. We also assess the impact of a change in media coverage of immigration following the November 13th 2015 terrorist attack on the vote outcome of an anti-immigration party, the FN. Our results suggest that terrorism causes a greater media focus on immigration issues, moreover the tone becomes more negative and refers more systematically to security and religious issues. We also note that the left-wing media, a priori more open on immigration, are those which react the most both in terms of the salience and negativity in the tone of immigration news articles. We finally document that increased media attention to the issue of immigration following a terrorist attack lead to more votes for the FN.

Keywords: Terrorism, Immigration, Media, Elections, France

JEL Classification: F51, F22, L82, D72

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1 Introduction

Terrorism appears to produce little and short lasting impacts on the economic activity of advanced economies unless when it is persistent and localized (Sandler and Gaibulloev, 2022) and (Abadie and Gardeazabal, 2008). But beyond the short run direct economic effects, does terrorism produce some social effects which might indirectly hinder the way resources are being used in the long run?

In particular, whether terrorism affects attitudes of people towards migrants is still an open question. Preferences in favour of hosting more migrants might be affected and more generally, discrimination against immigrants in different markets of the economy (labor, credit or rental markets) might rise. Besides, these preferences are expressed even more clearly in the voting behaviour of people in favour of anti-migrants parties. Indeed, many politicians, especially from nationalist and anti-migrant parties, tend to associate terrorism and insecurity related issues to the presence of migrants and possible further problems from hosting new waves of migrants in the future.

News media, which are expected to inform people (who are also voters) about key matters of large interest, could be one important vehicle of these voices. The role of the media is particularly important because significant proportion of people (especially those in rural areas) have no direct contact with migrants, they form attitudes based on what they hear and read in the media. Through the way of reporting, the media could therefore, influence individuals' way of thinking and preferences about immigration, shaping particularly their voting behaviour.

This paper, investigates how acts of terrorism could impact the discourse on immigrants in the news and therefore indirectly impact votes for anti-immigration parties. The paper add to our understanding on the role of terrorism in the ongoing success of far-right parties. More specifically we initially investigate whether terrorism changes

the salience and tone of reporting of the media on migration? We investigate to which subjects migrants are more systematically associated with? We test whether the effect is long-lasting or has a short life span? We also investigate whether there is a convergence in the salience and tone of reporting across national and local media news, and across media with different political orientations? We ultimately ask whether change in the salience and tone of reporting of the media on migration following a terrorist attack lead to more votes for anti-immigrants parties.

To respond to these questions we use Natural Language Processing (NLP) and extracted all news articles about immigration covering almost all French local and national newspapers from 2014 to 2016 listed in the Europress and Factiva databases. We set-up the dataset to include the weekly salience (share) and tone of news articles about immigration at the media level. Using time-series break analysis spanning three waves of terrorist attacks experienced in France in 2015 and 2016 we observe and estimate by how much the salience and the tone of articles are being affected by terrorism. We also introduce a comparative dimension into our study by grouping the media according to their political orientation. This allows us to assess the effect of the political orientation of the media on the portrayal of immigrants following a terrorist attack. Finally, we exploit differences that exist between 95 french departments in their way of reporting about immigration following the 13th November 2015 terrorist attack in Paris to link change in exposition in media coverage of immigration to change in vote share for the most popular french anti-immigrant party during the regional election of 6th December 2015 at commune level. Our results suggest that terrorism causes a greater media focus on immigration issues and considerable deterioration in the tone adopted to discuss immigration. Moreover, following a terrorist attack, immigration is mainly evoked by linking it to Muslims or security issues. We also note that the left-wing media, a priori more open to immigration, are those which react the most with the most increase in attention to immigration and the most deterioration in tone compared to the center and right-leaning media. We lastly document that, increased media attention to the

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issue of immigration following terrorism lead to more vote for anti-immigration parties.

Our paper is related to a strand of studies on media coverage of minorities which have shown that by simply emphasizing the ethnicity of news subjects (i.e., by making it visible), news media can increase outgroup hostility in the native media audiences (Sniderman et al., 2004). Most evidences indicate that media visibility of immigration increases public anti-immigration attitudes, even when controlling for real-world developments (e.g., immigrant inflows) or media tone (Van Klingeren et al., 2015). Although, (Schneider-Strawczynski and Valette, 2021) documents that immigration news relating to France polarizes immigration attitudes. It has also been shown that high visibility of the refugee crisis in the media increases citizens' Euroscepticism (Harteveld et al., 2018). Furthermore, many pieces of evidence indicate that the more news media report on immigration (i.e., in quantity alone), the more people tend to vote for parties with an anti-immigrant stance (Boomgaarden and Vliegenthart, 2007) (Burscher et al., 2015) and that media bias in coverage of immigrant criminality can significantly affect political outcomes and support for far-right parties (Couttenier et al., 2021) (Djourelova, 2020) or that lack of bias can significantly reduce natives' concerns about immigration (Keita et al., 2021).

The rest of the paper is organized as follows: in the next section we provide a brief scan of the literature on the role of media in the portrayal of immigrants and on shaping attitude toward immigration. In a third section we present our data and our methodology to proceed with information encoded in texts in order to reveal the salience and the tone of media articles. In a fourth section we present our results and the fifth section is dedicated to a conclusion and avenues for further research.

2 Related literature

The first objective of this study is to look at the impact of terrorism on the salience of immigrants in the news. The closest articles to our first objective are articles that investigate the salience of minorities in the news. From this literature, we know that the the intensity of reporting about minorities does not always reflect the actual numbers of these groups living in the country (Ter Wal, 2002). For instance, refugees remain the most salient group in many countries while labor migration is by far the dominant group (Lubbers et al., 1998) (Blinder and Allen, 2016). When we differentiate immigrants by religion, Muslim immigrants are the most salient group in media coverage (Moore et al., 2008). Some authors have pointed out that real-world events, such as elections or terrorist attacks, have coincided with increased attention devoted by the media to immigration-related issues in some countries (Moore et al., 2008) (Boomgaarden and Vliegenthart, 2009) (Allen, 2016). Nonetheless, none of the studies allow for a strict causal attribution of media salience to a specific event of terrorism. In the present study, unlike prior work on immigration news coverage, we are explicitly concerned with the links between immigrants in the news and act of terrorism. Specifically, we investigate whether acts of terrorism increase the salience of immigrants in the news. We have chosen a time frame of two years within which three major terrorist attacks occurred in France, our goal is to test whether these terrorist attacks caused an increase in the salience of immigrants in the news.

The second objective of our study is to look at the impact of terrorism on the tone of reporting about immigrants. We believe that tracking the tone of news articles that discusses immigration allows us to understand how immigrants are portrayed, as well as whether terrorism influences the portrayals over time. Therefore, the tone of immigration news articles following a terrorist attack gives further insight into how these articles may impact readers' perceptions of immigration and ultimately their vote. Most relevant to our work here is research that capture the tone of media content related to

minorities. From this literature, we know that immigration news is generaly negative (De Vreese et al., 2017). There is a strong (positive) correlation between the volume of negative immigration-related news reports and citizens' immigration-related threat perceptions (Vergeer et al., 2000) (Boomgaarden and Vliegenthart, 2009) (Schlueter and Davidov, 2013) (Eyssel et al., 2015) (Schemer, 2013). Some studies have highlighted the role of the media genre in the way of reporting about minorities. Most of these studies recognize that the tone of coverage of immigration-related issues may vary between media genres. Coverage in tabloids is generally more negative than that of quality newspapers (Cheregi, 2015) (Kroon et al., 2016) (Lawlor, 2015). In terms of television, minorities are portrayed more positively in talk shows than in any other television format (Ter Wal, 2002). Differences also exist among media with different political orientations, with liberal newspapers exhibiting more positively immigrants than their conservative counterparts (Eberl et al., 2018). The goal of our second research question is to test the validity of these findings with french data, to our knowledge no similar study has been performed using french news articles or news articles in french. The reason for that is that most of the available tools for automated tone analysis are designed for the English language, making textual analysis for french difficult. We also contribute to this growing literature by demonstrating the role of terrorism as an explanatory factor of media tone of immigration news.

The final objective of our study is to quantify the impact of a change in exposition in media coverage of immigration to change in vote share for anti-immigration parties. The aim here is to look at the indirect impact of terrorism on vote outcome through the media channel. Indeed, there are burgeoning literatures detailing the relationship between media content and vote for anti-immigrant parties. Most evidence indicates that the more news media report on immigration (i.e. in quantity alone), the more people tend to vote for parties with an anti-immigrant stance (Boomgaarden and Vliegenthart, 2007); (Burscher et al., 2015). From this literature, the closest paper to our work is the paper of (Couttenier et al., 2021) which studies how media coverage on immigrant

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criminality in 1,980 Swiss municipalities influenced electoral outcomes in the Swiss 2009 controversial referendums to ban minarets. The authors document that an increase in media bias, that is, an increase in the differential of crime reporting between foreign and natives' offenders, increased votes in favor of the Minaret Ban. Another closely related contribution is from (Djourelova, 2020) who also investigates the impact of a change in media reporting related to immigration. The empirical strategy in (Djourelova, 2020) takes advantage of a natural experiment provided by the exogenous ban of the term "illegal immigrant" from US newswire agency articles (Associated Press) in April 2013. She finds that individuals more exposed to newspapers that rely more on AP articles are less likely to support restrictive immigration policies after the ban. (Keita et al., 2021) applies a similar setting to German newspapers and find that systematically mentioning the origins of criminals, especially when offenders are natives, significantly reduces natives' concerns about immigration. Interestingly, (Couttenier et al., 2021) also simulate the impact of a law that would have forbidden Swiss newspapers to disclose the nationality of criminals and find that, such a law would have decreased pro-ban vote from 57.6% to 53.5%. These findings suggest that media content about immigration could significantly affect political outcomes and support for far-right parties. We contribute to this existing literature by demonstrating the effect of terrorism on the media content about immigration and ultimately, on the support for far-right parties whilst controlling for other real-world factors and developments.

3 Data and methods

3.1 Terrorist attacks in France

Our analysis focuses on three terrorist attacks that happened in France between 2015 and 2016. The initial goal of the paper is to measure the impact of these attacks on the

salience and tone of immigration news in the French media. The three terrorist attacks that we expect to influence the reporting of immigration in the french media are the Charlie Hebdo shooting of January 7, 2015, the Paris terrorist attack of November 13, 2015, and the terrorist in Nice on July 14, 2016. We expect these terrorist attacks to influence the reporting of immigration for several reasons. First, the three attacks are France deadliest terrorist attack in half a century (see section below for details), second the perpetrators of the attacks are either first or second generation immigrant to France and lastly these attacks were characterize by many as an attack against what French people value the most (Freedom of speech, the celebration of the symbolic Bastille Day).

3.1.1 The 7th January 2015 Charlie Hebdo shooting

On the morning of January 7, 2015, two brothers, Said and Cherif Kouachi (French citizens of Algerian origin) entered the offices of Charlie Hebdo, a satirical newspaper, in Paris. They killed eleven people working for the paper and a police officer outside the building. The majority of the victims were cartoonists, employees of the magazine, known for making fun of politicians, religions, and famous personalities. The cartoons of Prophet Mohammed published by Charlie Hebdo, considered offensive by some followers of Islam, were the reason behind the attack. Captured by the amateur video, perpetrators' claim, 'We avenged the Prophet Muhammad!' left no doubt about the connection between the killings and Islam. The particularity of the Charlie Hebdo shooting is that it went on for three days since five others were killed in related attacks (including the one on the kosher supermarket) the next two days around the city. Amedy Coulibaly (a French citizen of Malian origin) who was responsible for the attack on the kosher supermarket threatened to kill the hostages if police launched an assault on the Kouachi brothers, he eventually killed four hostages before being fatally shot by police. The attacks, viewed as the 'worst assault on France's homeland security, were quickly described by France 24 as the 'French September 11' and 'the country's

deadliest terrorist attack in half a century (Połońska-Kimunguyi and Gillespie, 2016).

3.1.2 The 13th November 2015 terrorist attack in Paris

On Friday, November 13, 2015, Paris was once again the target of terrorist attacks by a radical Islamist organization, this time the Islamic State (ISIS). The coordinated attacks involved shootings and suicide bombings in bars, restaurants, and a concert venue (the Bataclan). At 9:20 pm, three kamikaze bombs went off around the stadium "Stade de France" in Saint-Denis just outside Paris, four different shootings and bombings took place and, hundreds of people were held hostage in a theater in Paris. These constituted the deadliest attacks in France since World War II, leaving 130 dead and 368 people wounded. On this occasion, victims were in soft-target places, and there was no sense that the locations were chosen as a form of specific retaliation. Fabien Clain (a french resident of Réunionnais origin loyal to the Islamic State) released an audio recording the day before the attacks in which he personally claimed responsibility for the attacks. Later on, ISIS also claimed responsibility of the attacks. (Vasilopoulos et al., 2019).

3.1.3 The 14th July 2016 terrorist attack in Nice

On July 14, 2016, which is commonly known as Bastille Day (the national day of France, which is celebrated on 14 July each year), a terrorist drove a 19-ton truck into a crowd of 30,000 people gathered on the Promenade des Anglais in Nice to watch the fireworks, plowing pedestrians down over more than 2 km, killing 87 people and injuring 458, before being shot (Gonzalez et al., 2019). The driver was Mohamed Lahouaiej-Bouhlel, a Tunisian immigrant living in France. The attack in Nice was, therefore, the third attack that can be linked to immigration and radical Islamism which suggests that these attacks could have contributed to the growing (negative) coverage of immigration as some media might assign the responsibility of the attack to immigration and radical

Islamism.

3.2 Media database

To serve as the unit of analysis, we have constructed a "corpus" of articles (the population of news articles to be analyzed) appearing in the French newspapers and mentioning immigration. To identify relevant articles, that refer to immigration, we relied on boolean search strings and considered all national and local media in the online archive Europress and Factiva. To obtain the relevant articles, we extract articles that contain at least one occurence of either "immigré(s)", "migrant(s)" "immigration". Articles analyzed in this study were published between October 1, 2014 (3 months before the Charlie-Hebdo terrorist attack) and October 31, 2016 (3 months after the attack of Nice) covering the period of the (13 November 2015 attack in Paris) as well. After removing duplicate articles, our corpus contained a total of 52,020 newspaper articles which includes all newspaper articles about human migration but also non-human migration (animal migration, data migration). To identify articles that do mention immigration yet remain irrelevant for our study, we applied Latent Dirichlet Allocation (LDA, Blei et al., 2003), a probabilistic topic modeling tool, to extract the main topic from a document.

3.2.1 Cleaning the database with LDA

LDA is a machine learning technique, that evolved from a previous model called Probabilistic Latent Semantic Analysis used for reducing the dimensionality of a certain textual corpus while preserving its inherent statistical characteristics (Hoffman, 1999). LDA is generally used as a topic modeling technique that allows to group documents that share some topic ideas together. LDA relies on two assumptions in order to group documents together. The first assumption is that documents that discuss the same

topic will use similar words. The second is that to find to the main topic of discussion in a document all we have to do is look at the words that are used in the documents. LDA is a generative model in that it can generate a document from a set of topics, but it can also be used as an inference tool to extract topics from a corpus of documents. When used as an inference tool, LDA tries to backtrack from the documents to find a set of topics that are likely to have generated the collection.

Figure 1 presents a word cloud resulting from applying the LDA algorithm to our dataset. The figure shows the twenty most probable words within each topic. The LDA algorithm, after deciding on the most probable words within each topic, assigned every article in the dataset to one of the topics in figure 1 depending on the most probable words within the articles themselves. We briefly read several articles among those assigned to topics 9, 10, and 17 as we suspected these articles to be irrelevant for the analysis. We finally decided to filter out these articles because we judge the main topic of discussion to be irrelevant for our study. This process was repeated several times until we were confident that every article remaining in the dataset is somehow related to human immigration.

Figure 1: Word-cloud

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3.3   Measuring Media Salience

Our first dependent variable is the salience of immigration news in the French media. Most commonly, the salience of an issue is measured based on the absolute number or relative share of news stories referring to the issue at a given point in time (Boomgaarden et al., 2010). To measure the salience of immigration news we conducted a three-step computer-assisted content analysis. First, we selected all articles that included at least one reference to immigration or immigrants. This resulted in a total of 52,020 articles for all French media for the chosen period. In a second step, we identified and filtered out articles that mentioned immigration but were irrelevant for the analysis, leaving 48,418 articles in the database. In the final step, drawing from (Damstra et al., 2021), the immigration salience score was calculated by dividing the weekly number of immigration articles by the total number of articles ($\times 100$), resulting in a weekly salience percentage.

$$Salience_w = \frac{N_w^M}{N_w^T} \times 100 \tag{1}$$

where

- $Salience_w$ is the salience of immigration news in the French media in week w.

- N_w^M is the number of news article published in France in week w about Immigration.

- N_w^T is the total count of news article published in France in week w.

As stated by the authors, "*Working with relative measures is imperative, since the relative presence of issues indicates to the audience how important these issues are vis-a-vis other topics*". In figure 2, we plot our measure of weekly immigration salience score

in the French media with a vertical red dashed line indicating the date of the three major terrorist attacks within the time frame of the study. As stated earlier, an alternative measure of salience of immigration is the absolute count of news articles that make reference to immigration. To show that working with relative measure (percentage) or absolute value (count) will not lead to considerable difference in the result of the analysis, we also plot in figure 3 the salience of immigration measured as count of news articles that make reference to immigration. We can observe that the two measures are very similar, both showing strong variation in media attention to the issue of immigration over time, with immigration salience reaching the highest levels around August-September 2015, considered to be the peak of the European refugees' crisis when European countries received more than 1.2 million asylum applications according to Eurostat. There seems to be a slight increase in media attention to immigration following the shooting of Charlie Hebdo on January 7, 2015, and the November 13, 2015 attack in Paris. The increase in media attention following the Nice attack on July 14, 2016, is less evident.

One last figure worth looking at in terms of salience is the count of news articles that link immigration to Muslims. This is particularly important for us because all the three terrorist attacks that we are interested in within this study could be linked to radical Islamism. For instance the perpetrators of the Charlie Hebdo shooting claimed they did what they did as a revenge for the Prophet Muhammad and the Islamic State (ISIS) claimed responsibility for both the terrorist attack of November 13, 2015 and the attack in Nice on July 14 2016. The potential impact of the terrorist attack on the salience of immigration is more evident in figure 4, following each of the three terrorist attack, there is considerable increase in news articles that discuss immigration while liking it to Muslims which clearly demonstrate the out-sized media attention devoted to Muslims following a terrorist attack. It is the attack of November 13, 2015 that resulted in the most reaction from the media in terms of salience of news articles that link immigration to Muslims followed by the Charlie Hebdo shooting.
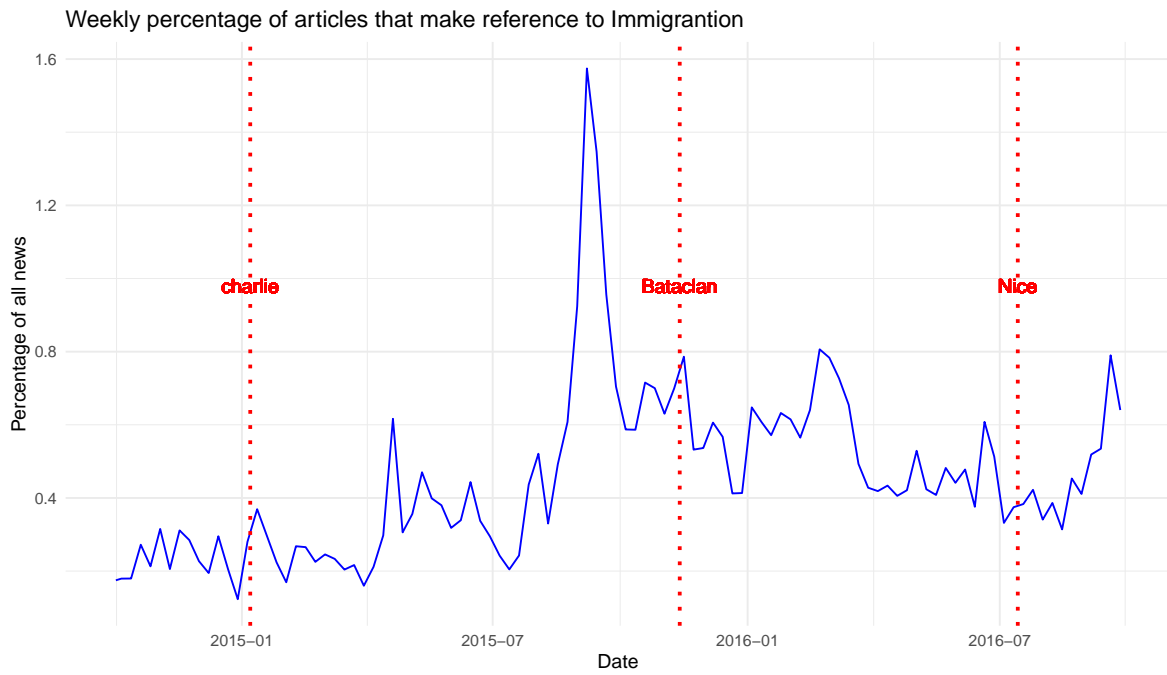
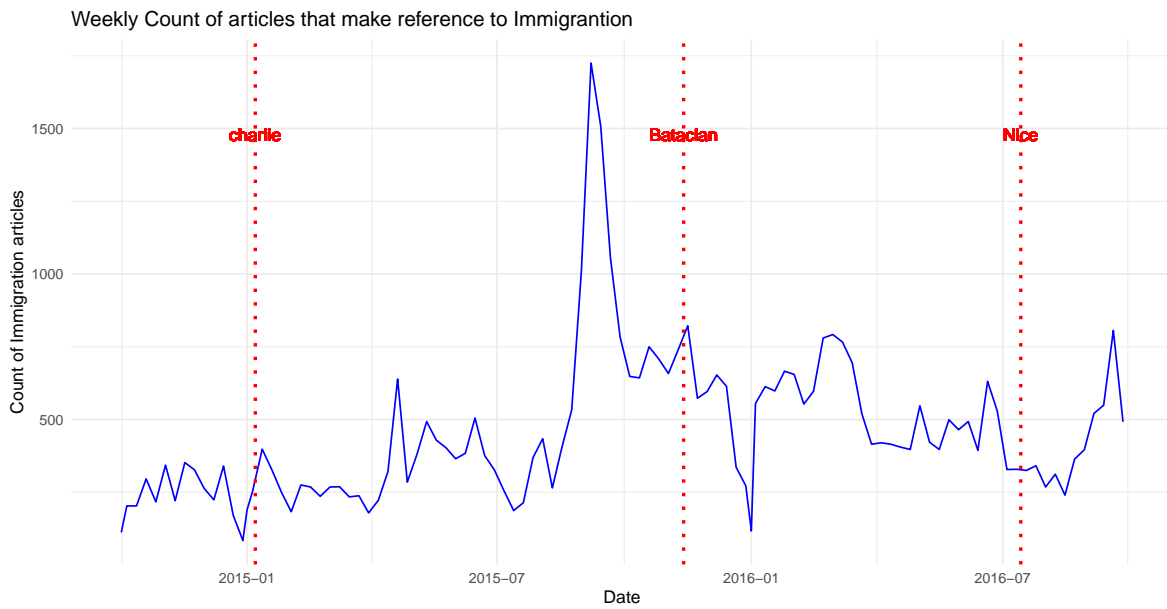Figure 2: Salience of Immigration news as percentage of all news

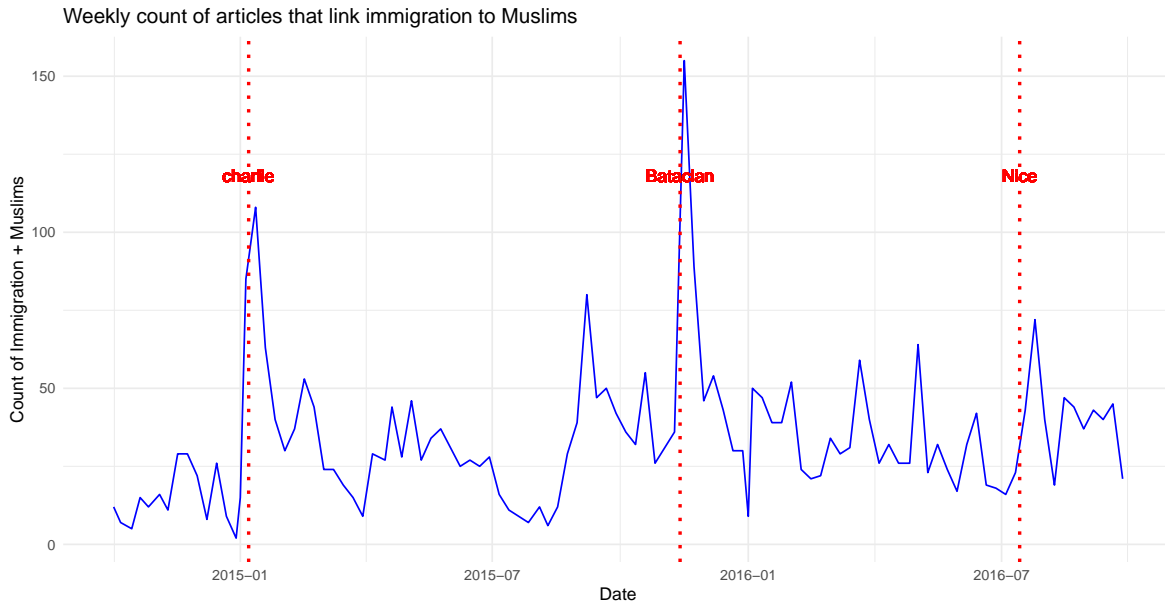Figure 3: Salience of Immigration news as count

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Figure 4: Salience of Immigration + Muslims as count

3.4   Measuring Media Tone

Our second dependent variable is tone of news articles that discuss immigration. To measure the tone of immigration news articles, we used a Dictionary-based approach that Lawlor (2015) detail as following:

"*Dictionaries use the rate at which keywords appear in a text to classify documents into categories. For example, when the goal is to measure the tone in newspaper articles, dictionary methods use a list of words with attached tone (positive or negative) and the relative rate at which words occur to measure a document's tone. Using the dictionary method for tone assessment is very straightforward. The net tone for each article is calculated as the proportion of positive words less the proportion of negative words in the article (# positive words/all words) (# negative words/all words). This gives a general measure of whether the article conveys a positive, neutral, or negative sentiment to the reader. Each article is assigned a tone score,*

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which can range in positive or negative numbers (e.g., +1 to –1).

The tone of each article is therefore computed as follow:

$$Tone_i = \frac{W_i^P - W_i^N}{W_i^T} \tag{2}$$

where

- $Tone_i$ is the tone of article i.

- W_i^P is the number of positive words within article i.

- W_i^N is the number of negative words within article i.

- W_i^T is the number of total words within article i.

To perform the tone assessment of our articles we could either develop our own dictionary with a list of positive and negative words or use a pre-existing dictionary developed by other researchers. But, as we have mentioned before, very few dictionaries are publicly available for tone analysis of the french language. To our knowledge, the only available dictionaries for tone assessment of french news articles are the french translation of two dictionaries developed primarily for the English language, the LIWC (Piolat et al., 2011) and the LSDFr (Duval and Pétry, 2016). Both of these dictionaries have been compiled for specific types of research with a different scope making it difficult to apply them to our research. The LIWC on the one hand has a different scope as it aims to identify all categories of words with psychological meaning. Two of these categories, however, focus on identifying words related to "negative emotion" and "positive emotion". The LSDFr on the other hand although is much closer in terms of scope to our research as it is specifically designed to differentiate between the negative and positive tone of a political text, was not developed specifically for immigration-related texts but

rather for any political texts including economic, crime, foreign affairs, environmental, etc. with precision varying from one issue to another which is not surprising as developing a dictionary is always a trade-off between scope and precision, the larger the scope the less precise the dictionary becomes. For a dictionary to work well, the classification of the words must closely align with how the words are used in a particular context. If a dictionary is developed for a specific application, then this assumption should be easy to justify. But when dictionaries are created for a larger scope, this assumption becomes difficult to justify (Grimmer and Stewart, 2013).

For example, (Loughran and McDonald, 2011) critique the increasingly common use of off-the-shelf dictionaries to measure the tone of statutorily required corporate earning reports in the accounting literature. They point out that many words that have a negative connotation in other contexts, like tax, cost, crude (oil), or cancer, may have a positive connotation in earning reports. As an example, a healthcare company may mention cancer often and oil companies are likely to discuss crude extensively which may be negative in general but not in that specific use case. Plus, words that are not identified as negative in off-the-shelf dictionaries may have quite a negative connotation in earning reports (e.g., unanticipated). The authors, therefore, demonstrate that the widely used Harvard psychosociological dictionary can be ill-suited for financial applications (Gentzkow et al., 2019). Another example that is more related to the case of immigration is the word security, a word with a positive connotation in general including in dictionaries with a larger scope such as the LSDFr. However, a context analysis revealed that the word security has a negative connotation when used in the context of immigrants. The word is principally used to point to security concerns that are raised by immigrants. It is for this reason that it is advised to create a problem-specific dictionary. The lack of a suitable dictionary for the tone analysis of immigration news in french left us with no choice but to go through the complex process of dictionary creation and validation. In the next sections, we outline the design of the dictionary, followed by a description of the step taken to validate the dictionary.

3.4.1 Design of a dictionary to measure news tone

In the literature, several methods have been used for dictionary construction. Young and Soroka (2012) summarise the methods:

> *In some cases, dictionaries are compiled from previously generated word lists (e.g., GI) (Stone et al., 1967); in others, codes are manually attributed by expert coders or panels of judges (e.g., LIWC) (Pennebaker, Francis, & Booth, 2001); in others, words are tagged using computer automation based on patterns in natural language (e.g., PMI) (Turney & Littman, 2003) or the linguistic properties of words (e.g., WNA) Strapparava & Valitutti, 2004); and others still are derived from experimental methods (e.g., ANEW) (Bradley Lang, 1999); or iterative processes combining a number of different approaches (e.g., TAS/C) (Mergenthaler, 1996, 2008). Each method measures something slightly different. Generally speaking, expert coding seeks to capture the definitive meaning of words, automation captures contextual or common usage, and experimental methods capture something closer to perceptions of words.*

In our case, the aim was to capture the definitive meaning of words therefore the dictionary was constructed by human coders (the authors). We initially, randomly selected 200 articles from the carpus. The 200 articles were equally distributed among the four coders to identify words with a connotation (positive or negative). The coders read through the 200 articles and identified every word they believe has a positive or negative connotation in the context of immigrants. The goal here is to identify and categorize every word that could help in deciding the tone of an article. For every word identified, the word was definitely classified as positive or negative if at least three coders identified and classified it as positive or negative. For words identified by less than three coders, we employed a number of strategies that helped us decide about the

final classification of the word. First, we examined different uses of the same word in a corpus, at least 10 and up to 30 usages if necessary then the final decision regarding the category of the word was decided through a team meeting. Words with multiple senses and tricky contextual usage were dropped and removed from the dictionary.

We took account of basic negation patterns and word boosters that modify or amplify the meaning of certain words. For example, although the word "happy" is positive in general, it becomes negative when followed by not ("PAS" in french). To take account of such a common way of being negative in french while using a positive word or vice versa, we used the following strategy: When a word in our dictionary is preceded by one of the following[1] negations, its score is multiplied by negative 1. Basically, when a positive word is preceded by one of the negations in the list, the word becomes negative and vice versa. We also included word boosters to capture the fact that happy and very happy does not have the same intensity in terms of sentiment. To take account of that, when one of the word in our dictionary is preceded by one of the following[2] words, its score is multiplied by two. The final dictionary is available in the appendix and is composed of 1504 words, with 517 positive words and 987 negative words.

Drawing from (Young and Soroka, 2012), the developers of the English version of LSDFr, we would like to specify that the measure of tone that is captured by these types of dictionaries reflect a combination of objective content about the various issues and events being reported on and subjective opinions or attitudes about the content itself. Positive coverage may result from attention to objectively positive events involving immigrants, it might also result from the article supporting the migrants cause or praise of, government policies in favor of immigrants. Likewise, negative coverage may result

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[1]List of negative terms: pas, ne, n, jamais, plus, rien, aucunement, nullement, sans.

[2]List of amplifiers: absolument, archi, beaucoup, bigrement, bougrement, carrément, complètement, considérablement, cruellement, davantage, diablement, diantrement, divinement, drôlement, entièrement, exceptionnellement, excessivement, extrêmement, fabuleusement, grandement, hyper, impeccablement, incroyablement, infiniment, joliment, merveilleusement, prodigieusement, profondément, rudement, sacrément, spécialement, sublimement, superbement, tellement, terriblement, totalement, trop, très, ultra, vachement, vraiment, énormément.

from attention to objectively tragic events involving immigrants such as shipwreck or; it might equally reflect criticism of government policies in favor of immigrants. Thus, the tone obtained here should be considered a composite measure of (a) the relative negativity of the actual events or issues being covered and (b) the opinions and attitudes of newsmakers about those events and issues (Young and Soroka, 2012).

3.4.2   Dictionary validation

In this section we validate the dictionary, that is we test whether the dictionary works. One approach that is often effective for validation is manual audits: cross-checking some subset of the tone produce by the dictionary against the coding a human would produce by hand. An informal version of this is for a researcher to simply read a subset of the article in the corpus and decide about their tone, then use the dictionary to determine the tone of the same subset, finally evaluate the consistency between the human and the dictionary codings. The subsample of documents does not need to be large for this exercise to be valuable— often as few as 20 or 30 documents is considered enough to provide a sense of whether the dictionary works as intended (Young and Soroka, 2012).

On the basis of these recommendations, 200 new articles (different from those used for the creation of the dictionary) were randomly chosen and assigned to coders. The coders read the 200 articles and decided about the tone of the articles, (positive, neutral, or negative). During the annotation process, the publishing journal name was hidden from the coders, all that was available was the plain text. The reason for doing this is for the assigned tone to reflect the overall sentiment of the article—not the tone for a particular individual or the coders' own feelings about the publishing journal. At the end of the annotation process, 43.4% of articles were assigned to be negative, 31.6% neutral, and 25% positive.

Finally, a polarity score for each of the annotated articles was calculated using the

developed dictionary here and the LSDFr (the LIWC is not included because it was not developed for political text, a payment is also required to use the dictionary). (Figure 5 and 6) show the average net tone score for each of the three groups resulting from the manual coding for our dictionary developed here and the LSDFr. Our dictionary is better able to distinguish between immigration news articles with different tones. In the aggregate, news articles with a negative tone receive on average negative score, neutral stories receive on average a score close to 0 and positive stories receive on average positive score when our dictionary is used while the LSDFr is unable to properly distinguish among the three categories. That is the reason why we were unable to use the LSDFr which is the only freely available dictionary for the automated tone assessment of political text in french for our research.
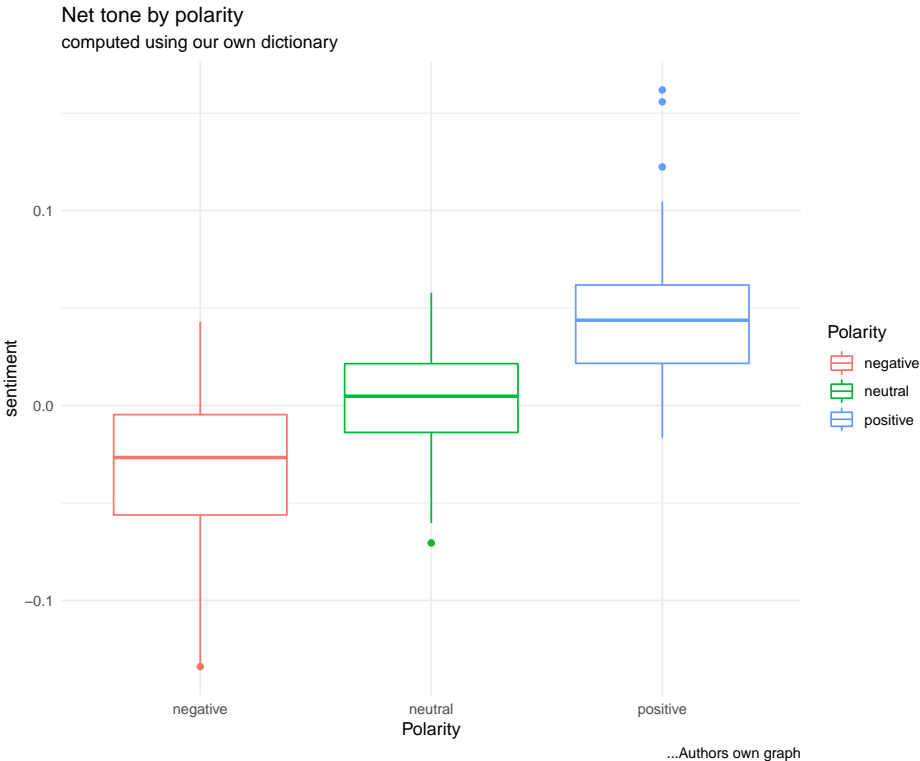

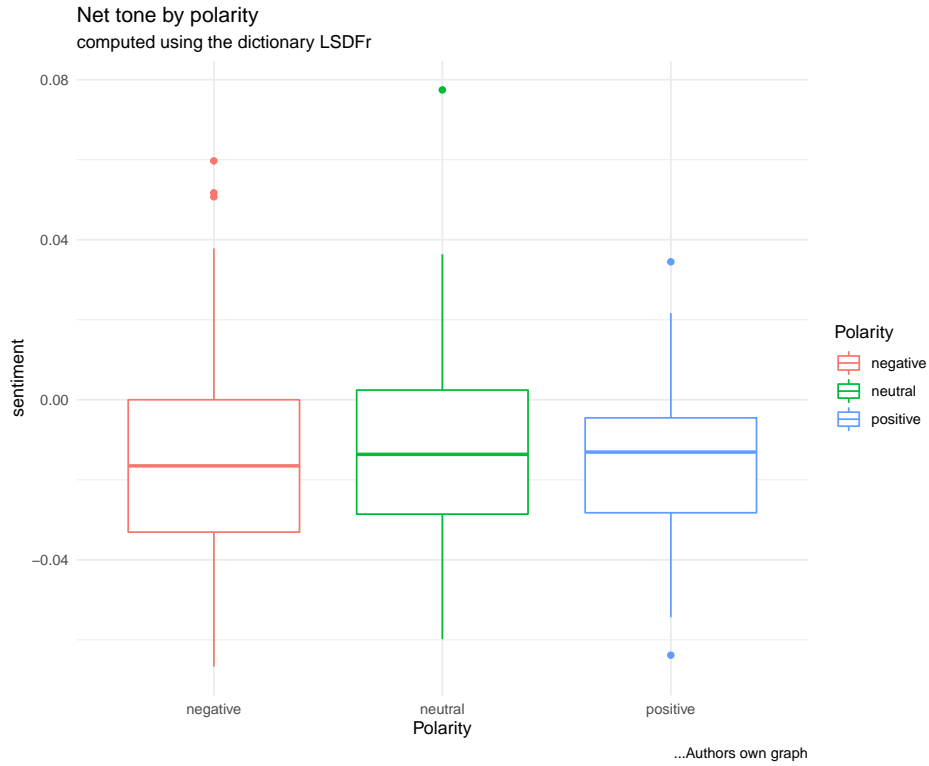Figure 5: Average net tone per group using our own dictionary

Figure 6: Average net tone per group using the dictionary LSDFr

3.4.3 Average weekly tone

The weekly average tone score is finally computed as follow:

$$Tone_w = \frac{1}{N_w^M} \sum Tone_i \tag{3}$$

where

- $Tone_w$ is the average tone score of immigration news published in week w.

- N_w^M is the total number of news article about Immigration published in week w.

- $Tone_i$ is tone score of article i computed using equation 2, where i can be any news article about immigration published in week w.

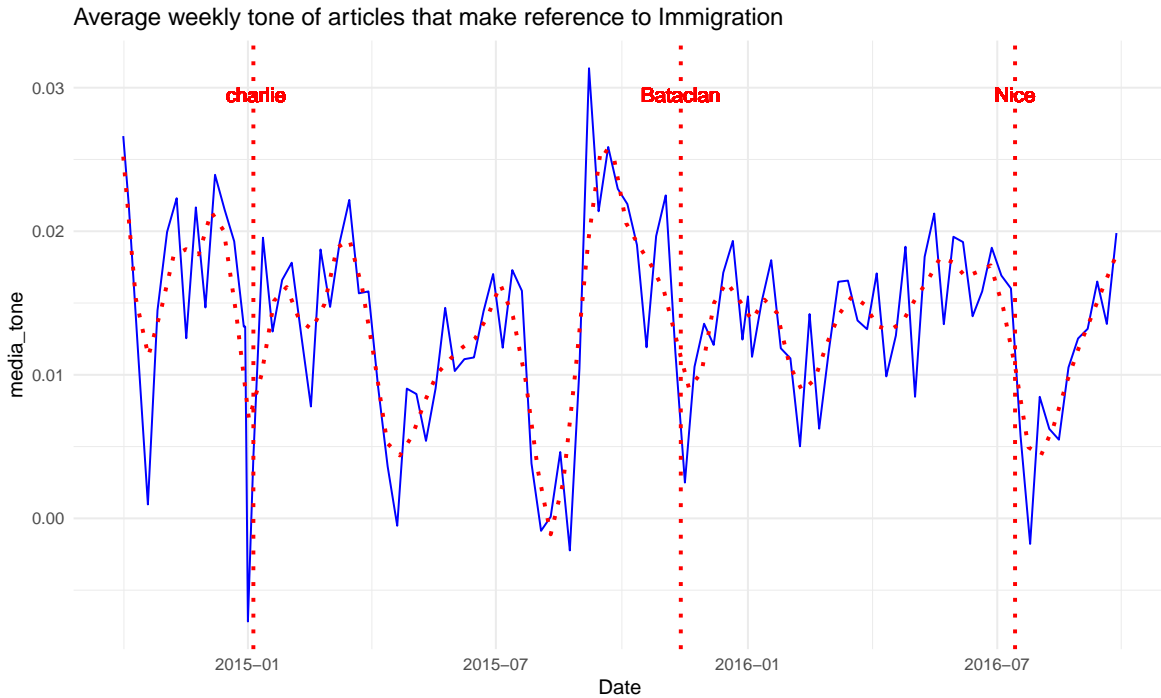Average weekly tone of articles that make reference to Immigration

Figure 7: Mean Tone of Immigration news

In figures 7, we plot our measures of average weekly tone of news articles about immigration with a vertical red dashed line indicating the date of the three major terrorist attacks within the time frame of the study. In figure 8 we also plot measure of average weekly tone of news articles that discuss immigration while linking it to Muslims. Both figures clearly show that the tone of immigration-related news varies significantly from one week to another with many of the dips coinciding with weeks of terrorism. Surprisingly, in contrast to previous findings claiming that news about immigration is generally negative, our data here shows that news about general immigration is not always negative, to the contrary, they are on average positive and, only occasionally negative. However, in line with previous findings, news that discuss immigration while linking it to Muslims is generally negative. The data also shows that the average tone of immigration-related text is severely affected by external events such as terrorism.
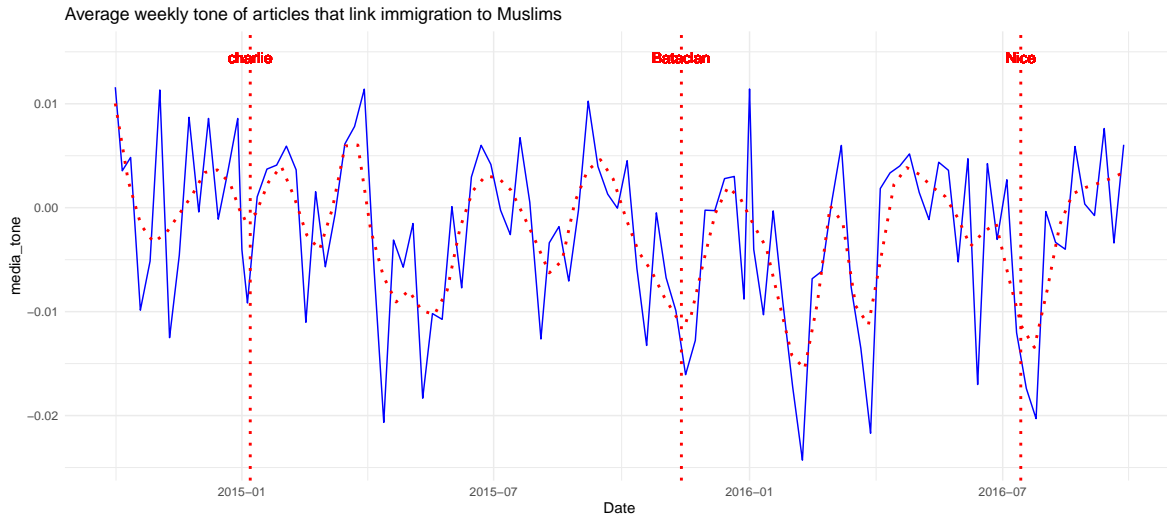
Figure 8: Mean Tone of Immigration + Muslims news

3.5 Increase in vote share for the FN

The final objective of our study is to link change in exposition in media coverage of immigration to change in vote share for the most popular French anti-immigration party, the FN ("Front national") of Marine Le Pen, following the November 2015 terrorist attack in Paris. To do this, we measure the percentage change in vote shares for the FN in the 2015 regional elections from the 2010 regional election for each commune in France. The 2010 regional election was held in France on 14 and 21 March 2010. At stake were the presidencies of each of France's 26 regions. The elections resulted in significant gains for the French Socialist Party (PS) and its allies who went on to control 21 regions. With 11.7 per cent of the valid votes, the FN lost ground compared with the 2004 elections (15.1 per cent). However, during the subsequent regional election that was held in France on 6 and 13 December 2015. The FN managed to considerably increase its vote share from 11.42% in the first round of the 2010 election to 27.73% in 2015 election suggesting the FN was back on the right path to regain much of the electoral strength that it had enjoyed before the elections of 2007. The question we ask here is the following: Did the communication of the media about immigration following

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the November 2015 terrorist attack played a role in the impressive progression of the FN from 2010 to 2015 as shown in figure 9? To answer, we construct our final dependent variable, the percentage change in vote share for the FN from 2010 to 2015 regional election as:

$$\Delta\_Vote\_FN_j = \frac{Vote\_FN_{j,2015} - Vote\_FN_{j,2010}}{Vote\_FN_{j,2010}} \times 100 \tag{4}$$

- $\Delta\_Vote\_FN_j$ is the percentage change in vote share for the FN from 2010 to 2015 in commune j.

- $Vote\_FN_{j,2015}$ is the percentage of vote share for the FN in 2015 in commune j.

- $Vote\_FN_{j,2010}$ is the percentage of vote share for the FN in 2010 in commune j.

Figure 10 shows average percentage change in vote share for the FN from 2010 to 2015 regional election for 95 French departments. Data on voting outcomes were collected on the official government website (data.gouv.fr).

3.6   Sub-components of immigration

Previous studies on media portrayal of immigrants have shown that immigration is hardly discussed as a stand-alone topic, it is often linked to other issues. for instance, (Damstra et al., 2021) to study the impact of immigration news on anti-immigrant party support distinguished between (a) general immigration news, news in which immigration is linked to (b) crime, (c) terrorism, or (d) the economy, and (e) immigration news in which an anti-immigration party is mentioned explicitly; similarly, (Hajdinjak et al., 2020) in their attempt to discover how political parties discuss migration policy in legislative speeches in Canada and the USA identified (a) an Immigration core
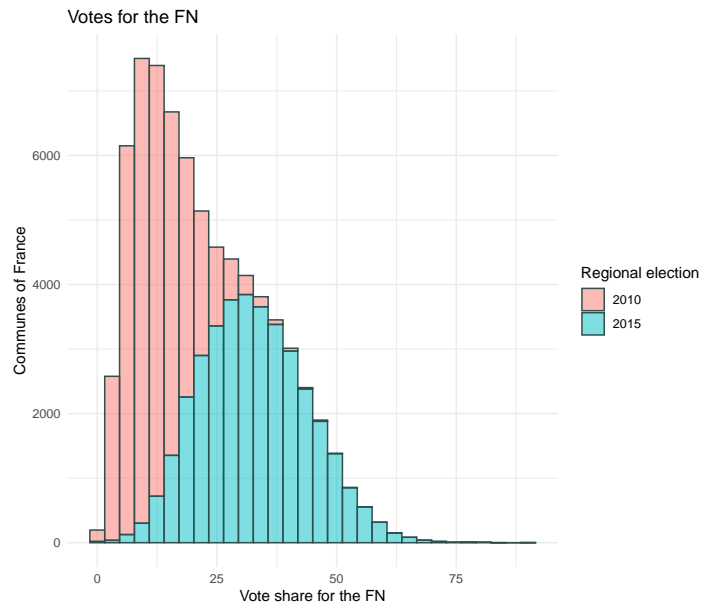
Votes for the FN

Figure 9: vote share for the FN

% change in vote share

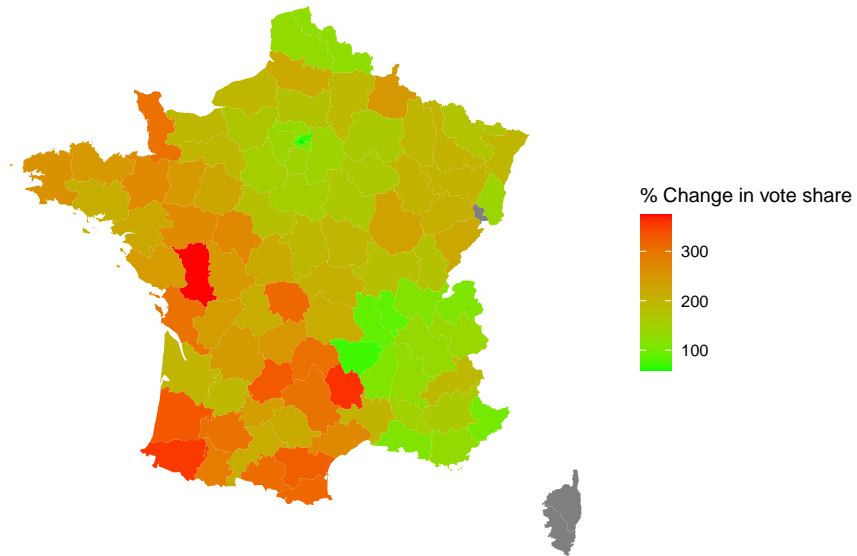For the FN from 2010 to 2015 French Regional Election

Figure 10: % Change in vote share for the FN

category, (b) an economic category, (c) a Culture category, (d) the Security category and (e) a Human Rights category; lastly (Bauder, 2008) in its analysis of articles published in the German daily newsprint media identified four models of argumentation that were used in the debate of the immigration law: (a) Economic (migration produces economic benefits or harm); (b) danger (migration produces or prevents danger); (c) culture (migration is desirable or undesirable for ethnic and/or cultural reasons); (d) humanitarian (migration should be permitted or denied for reasons of humanitarianism and/or human rights). Drawing from these studies and using dictionary-based automated content analysis, we identified three more sub-component of immigration (in addition to general immigration news and news that link immigration with Muslims) within our database of news articles that discuss immigration.

1. Immigration (figure 2 and 3): The first category that we call Immigration includes any news articles that discusses immigration therefore the entire database. The top 5 medias that most often produce news about immigration within our database are: Le Havre-libre (1.39%), Valeurs-Actuelles (1.22%), Acteurs Publics (1.03%), LExpress (0.59%) and LHumanité (0.27%) (See figure 11).

2. Immigration + Muslims (figure 4): The second category that we call Immigration + Muslims refers to news articles that discusses immigration while linking it to Muslims. To identify news articles that link immigration to Muslims we searched for articles within our database that mention at least twice Muslims or Islam. The medias that most often link immigration with Muslims are: Valeurs-Actuelles (49.61%), Le Point (40.8%) LExpress (28.68%), Le Monde (28.27%), Le Figaro (28.03%) (See figure 11).

3. Immigration + Humanitarian (figure 14): The third category discusses the humanitarian side of immigration, it includes news articles that mention at least twice one of the following french words {humanitaire, refugié, association, solidaire, asile, solidarité, bénévole}. Medias that most often discuss the humani-

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tarian side of immigration are: La République des Pyrénées (site web) (48.21%), Le Progrès (43.35%), Humanité (39.45%), Charente Libre (37.87%) and La Croix (37.71%) (See figure 11).

4. Immigration + Economy (figure 13): the fourth category links immigration with economic issues and includes news articles within our database that mention at least twice one of the following french words {économie, croissance, PIB , dette , épargne, impôt, contribuable, inflation, budget, dépense, finances publiques, sécurité sociale, retraite, commerce international, emploi, travail, chômage, chômeur, infrastructure, marché, smic , salaire, taxe, économique, trésorerie, finance, économique, commerce}. The medias that most often link immigration with economic issues are: LExpress (50.76%), Le Point (49%), Acteurs Publics (38.37%), Valeurs-Actuelles (36.59%) and Le Monde (32.61%) (See figure 11).

5. Immigration + (In)security (figure 12): the last category that we identified links immigration with security or insecurity issues and includes news articles within our database that mention at least twice one of the following french words {conflit, sécurité, insécurité, guerre, terrorisme, terroriste, sécuritaire, mort, djihadiste, trafic, drogue, attentat, armes, armée, tueur, police, militaire, prison, arrestation, détention, délinquance, condamner, trafiquant, judiciaire}. Valeurs-Actuelles (55.28%), Le Point (53.77%), LExpress (41.62), Le Monde (41.29) and Le Figaro (41.28%) (See figure 11).

Table 1 displays the distribution of the identified sub-components across the media for media with at least 20 news articles about immigration within the time frame of the study. The column "Presse" shows the name of the news media, the column "All news" displays the count of all news articles of the specified media that exist within the archive Europress and Factiva, the column "Immigration news" displays the count news articles identified as being linked to immigration, the column "% Immigration" displays the percentage of all news articles that is related to immigration, the remaining

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Table 1: descriptive statistics

	Presse	All news	Immigration news	% Immigration	% Immigration + Muslims	% Immigration + Humanitarian	% Immigration + Economy	% Immigration + (In)security
1	Acteurs publics	8324	86	1.03	4.65	27.91	38.37	25.58
2	Aujourdhui en France	1322736	1069	0.08	15.25	30.87	11.79	33.12
3	Le Berry Républicain	279544	272	0.10	5.15	18.38	15.44	7.35
4	Centre Presse Aveyron	432738	510	0.12	16.08	34.51	9.61	30.59
5	Charente Libre	493225	536	0.11	14.55	37.87	11.19	24.81
6	Le Courrier de lOuest	3516243	1481	0.04	9.18	25.25	9.32	14.58
7	La Croix	870938	1705	0.20	16.36	37.71	20.18	24.40
8	LExpress	65805	394	0.60	28.68	21.57	50.76	41.62
9	Le Figaro	9868208	2943	0.03	28.03	34.59	25.38	41.28
10	Le Havre Libre	1789	25	1.40	0.00	20.00	8.00	20.00
11	LHumanité	496458	1346	0.27	20.58	39.45	27.64	38.11
12	Le Journal du Centre	338702	362	0.11	2.76	21.27	8.56	11.60
13	LEst Républicain	12770775	2195	0.02	10.52	32.98	12.94	21.87
14	LIndépendant	2843052	1033	0.04	14.81	33.59	11.42	28.36
15	La Nouvelle République Dimanche	84874	184	0.22	9.24	27.17	9.24	23.91
16	La Nouvelle République du Centre-Ouest	8607653	1609	0.02	9.51	28.71	11.31	16.59
17	La République des Pyrénées (site web)	834301	1732	0.21	22.40	48.21	14.38	41.11
18	La Voix du Nord	14495683	4232	0.03	3.95	18.38	7.30	21.41
19	La Provence	8589400	2312	0.03	9.99	23.31	11.42	18.21
20	Le Bien Public	1250382	614	0.05	8.14	31.60	13.52	19.38
21	Le Journal de Saône et Loire	2402216	731	0.03	8.89	36.39	13.95	19.29
22	Le main libre	225817	223	0.10	5.83	22.42	7.62	6.73
23	Libération	681378	1785	0.26	27.45	34.34	28.07	38.71
24	Midi Libre	10112085	1698	0.02	16.90	30.92	12.96	28.50
25	Le Monde	5395026	3272	0.06	28.27	36.31	32.61	41.29
26	Ouest-France	114427294	4557	0.00	7.15	35.90	10.82	14.31
27	Paris-Normandie	832455	543	0.07	11.42	33.15	14.92	29.47
28	Le Parisien	4148000	1840	0.04	10.16	36.58	8.37	19.35
29	Le Point	213506	424	0.20	40.80	26.65	49.29	53.77
30	Presse-Océan	987714	735	0.07	14.56	31.02	8.03	23.95
31	Le Progrès	18661920	2025	0.01	9.19	43.36	27.51	22.67
32	Sud Ouest	27838020	3430	0.01	11.98	37.29	15.60	28.34
33	Le Télégramme	9343835	1413	0.02	7.71	34.18	9.91	13.16
34	Valeurs Actuelles	63823	776	1.22	49.61	22.16	36.60	55.28

columns display the percentage of the category mentioned within immigration news. It is important to acknowledge that the sum of percentages across categories may surpass 100% that is because an article can be assigned to more than one category. To facilitate the reading of the table, we plot in figure 11 the top medias for the five categories of immigration previously identified.

We now look at the over-time development of the different sub-components of immigration. News that link immigration with (in)security is the category that most often occurs within our data with (M = 27.08% and SD = 6.46). This category seems to fluctuate a lot and react very strongly to terrorist attacks suggesting that following terrorist attacks there is a tendency for the media to discuss immigration while linking it with security issues (figure 12). The peak for the for the category is reached during the week of November 16, 2015, which corresponds to the next week following the 13th November 2015 terrorist attack in Paris. The next category that is mostly discussed is Immigration + Economy with (M = 17.76% and SD = 4.91), the peak for this category is reached at the peak of the refugee crisis in September, 2015 with a second peak during the week of June 20, 2016 (figure 13). On the 20th of June 2016, the French government passed a law regarding the minimum salary an immigrant should perceive
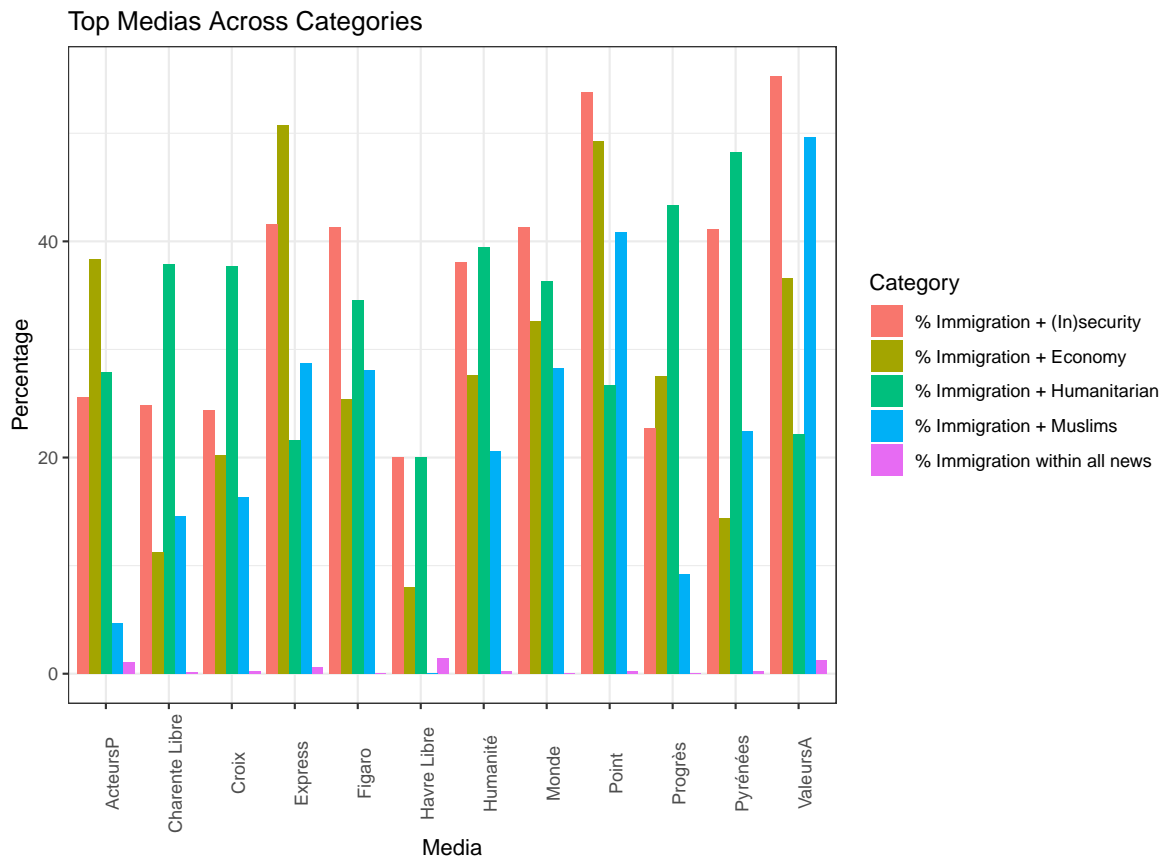
Figure 11: Top medias across categories

to be able to request a residence permit with the mention "Carte Bleue Europenne". News that discuss the humanitarian side of immigration is the least present whithin the dataset, no more than 10% of immigration news articles were linked to refugees (figure 14). Immigration was mostly discussed in the humanitarian context between the period of August, 2015 to September 2015. The month of September 2015 is believed to be the peak of the refugee crisis in Europe, it is also at the beginning of September 2015 that the lifeless body of Aylan Kurdi, 2 years old, died drowned, whose body was found on a beach in Turkey. The heartbreaking picture of Aylan Kurdi was shown all around the world as a symbol of the drama of the migrants.

Although all the categories react strongly to the three terrorist attacks with an increase in the amount of news articles that link immigration to each category, the two categories that seem to react the most are Immigration + (In)security (figure 12) and immigration + Muslims (figure 4). The two categories also seem to have a similar pattern since the correlation coefficient between the two series is the strongest with (r = 0.53). So when news links immigration to (In)security, the focus is also on Muslims. The correlation coefficient of immigration + Economy and immigration + humanitarian is (r = -0.48) suggesting these other two series are also related but move in opposite directions. Basically, when news links immigration to economic issues, the focus is less on the humanitarian side of immigration, and vice versa.
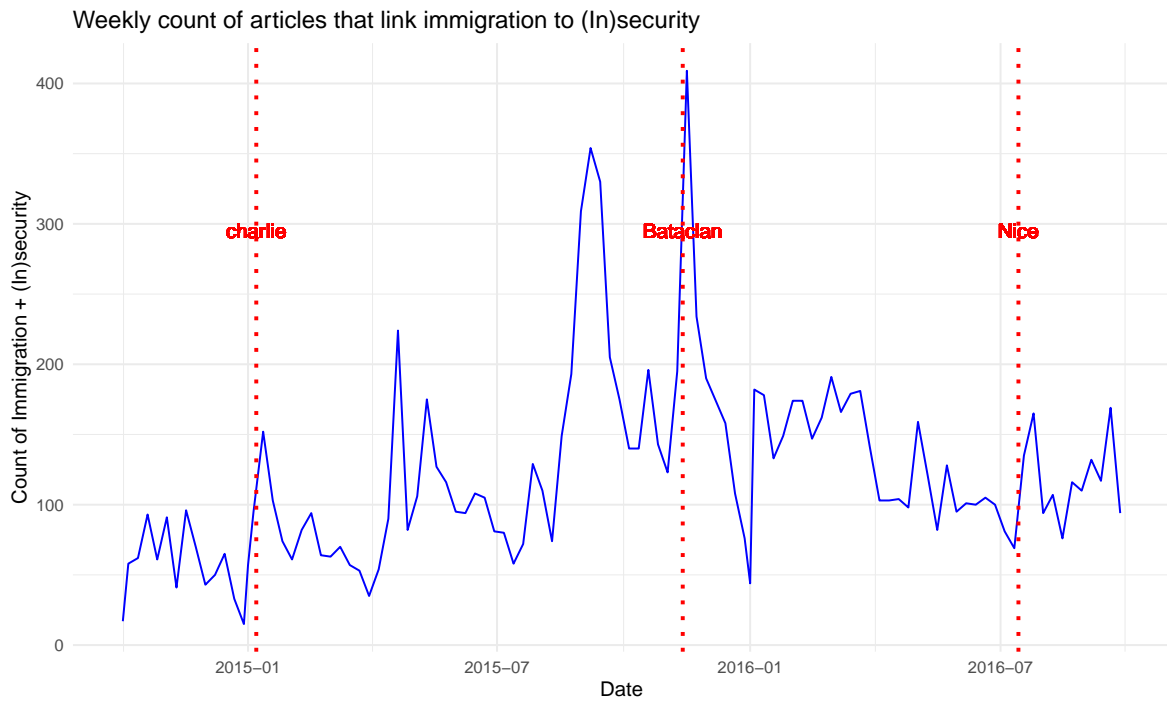
Figure 12: Weekly Count of news that link immigration with (In)security
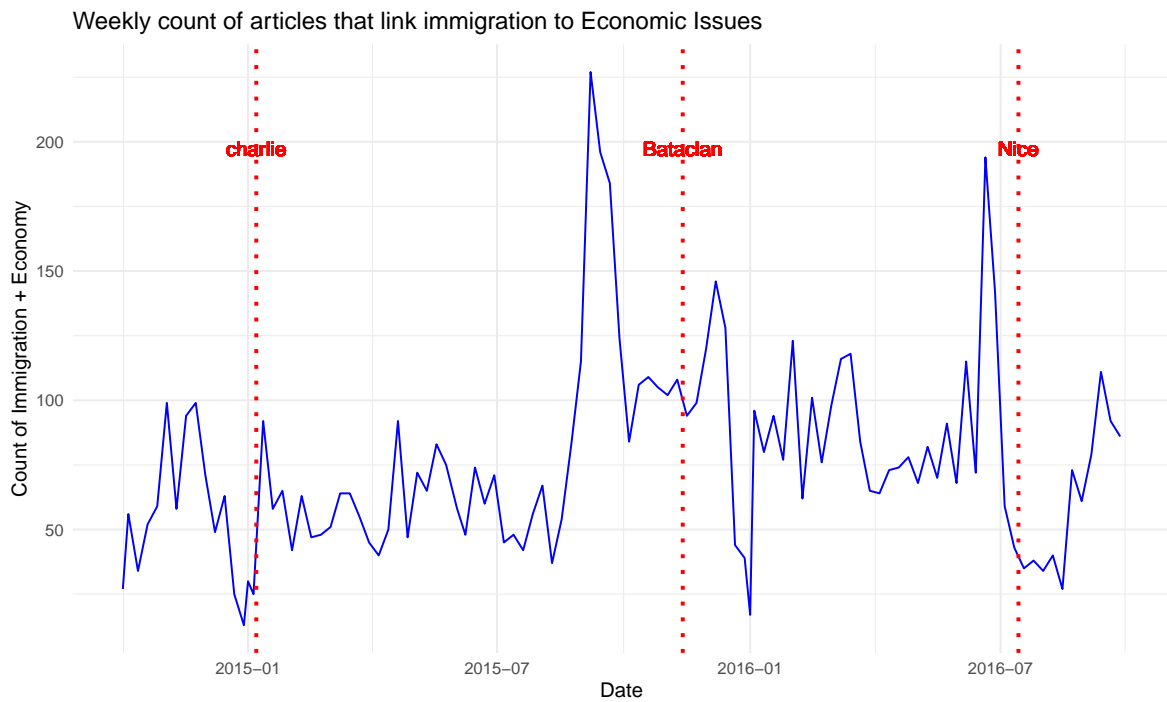

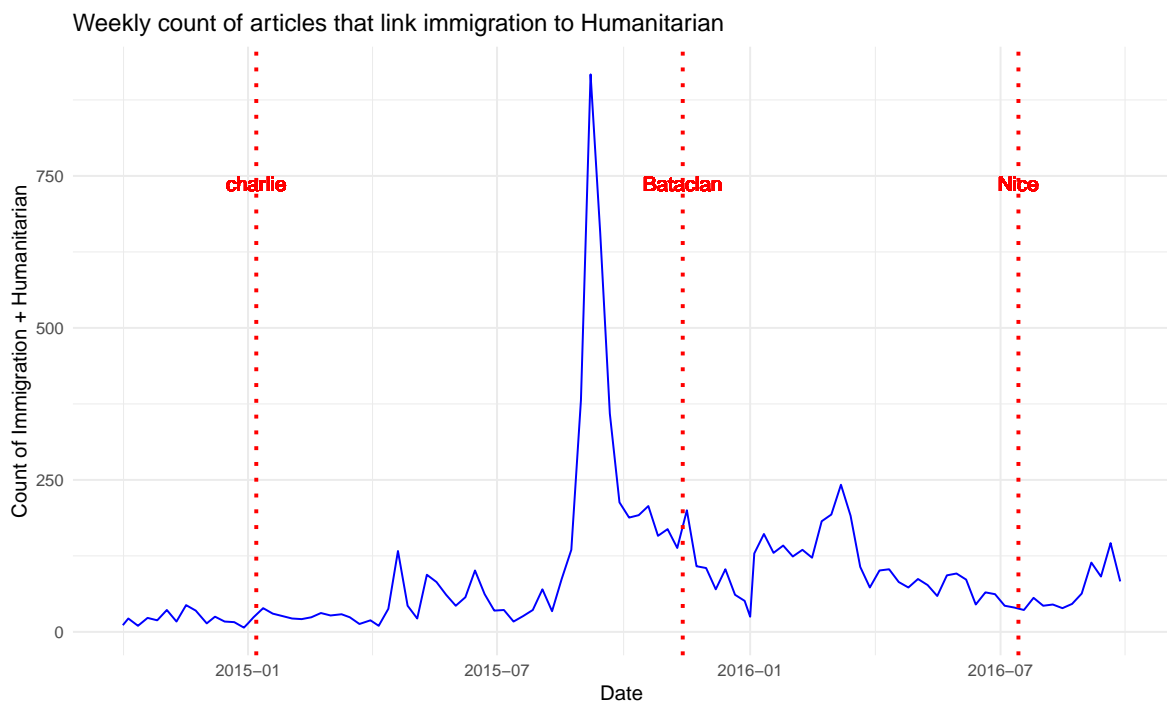Figure 13: Weekly count of news that link Immigration to Economic issues

Figure 14: Weekly count of news that discusses the humanitarian side of immigration

3.7 Model

We start our analysis by estimating the impact of terrorism on the salience and tone of immigration news. For that, we estimate a panel time series models, with measures of media salience and media tone developed in equations 1 and 3 as dependent variables and dummies specifying the occurrence of a major terrorist attack in France as the variable of interests, we also control for special events that might impact the salience and tone of immigration news such as major shipwrecks in the Mediterranean sea involving migrants or refugees, we also add time (quarter) and journal fixed effects. The media salience and tone model estimated is as follow:

$$Y_{jt} = \alpha_0 + \alpha_1 * Terror\_Week_t + \zeta'X + \eta_j + \eta_t + u_{jt} \tag{5}$$

Where

- $\underline{Y_{j,t}}$ is media salience (weekly percentage of immigration news within all news) or media tone (weekly average tone of immigration news), we also include the weekly tone and percentage of each sub-component within all news;

- $Terror\_Week_t$ is the variable of interest, a set of dummy variables, week1 takes one when a terrorist attack occurred in that week. week2 takes 1 when a terrorist attack occurred in the previous week. week3, week4, ... week8, are also constructed the same way. week8_plus covers the period from the ninth week after a terrorist attack to the end of the study period.

- X are $Controls$ including Naufrage (Dummy indicating major shipwreck involving migrants), quarter and journal fixed effects.

In the second phase of the analysis, we use the findings from model 1 to estimate the impact of a change in exposition to media coverage of immigration following a

terrorist attack on the vote outcome of an anti-immigration party (the FN) during the 2015 french regional election. Our identification strategy relies on exploiting the timing of the regional election that was held on 6th December 2015 so about three weeks after the terrorist attack of November 13th 2015 in Paris along with between department variation of immigration coverage before and after the attack to link change in exposition in media coverage of immigration to change in vote share for the FN. For the analysis, we estimated a simple Ordinary Least Squares (OLS) regression model where we use the percentage change in vote share for the FN from the 2010 regional election to the 2015 regional election (first round) within 36,000 french communes as the dependent variable (see equation 4). Our variable of interest is a measure of the change in exposition to media salience and media tone of immigration caused by terrorism within the 36,000 communes. Because we do not have media data for all the 36,000 communes, we use the mean exposition of the departments (95) as proxy for commune level exposition. We constructed three variables of interest, with two related to media salience of immigration and one related to media tone of immigration.

3.7.1 Measures of exposition to salience of immigration news

The first variable of interest measures the percentage change in a commune exposition to immigration news caused by the 13th November 2015 terrorist attack. To compute the percentage change in a commune level exposition to salience of immigration news, we first compute the salience of immigration news at media level before and after the the 13th November 2015 terrorist attack as follow:

$$S j^0 = \frac{N_j^{M,0}}{N_j^{T,0}} \times 100 \tag{6}$$

$$Sj^1 = \frac{N_j^{M,1}}{N_j^{T,1}} \times 100 \tag{7}$$

where

- Sj^0 is the salience of immigration news caused by media (j) three weeks before (0) the Bataclan.

- Sj^1 is the salience of immigration news caused by media (j) three weeks after (1) the Bataclan.

- $N_j^{M,0}$ is the total number of news article about Immigration (M), published by media (j), three weeks before (0) the Bataclan.

- $N_j^{M,1}$ is the total number of news article about Immigration (M), published by media (j), three weeks after (1) the Bataclan.

- $N_j^{T,0}$ is the total (T) number of news article published by media (j), three weeks before (0) the Bataclan.

- $N_j^{T,1}$ is the total (T) number of news article published by media (j), three weeks after (1) the Bataclan.

In a second step, we compute each department exposition to salience of immigration news before and after the 13th November 2015 terrorist attack as follow:

$$Expo_{S,D}^0 = \frac{1}{N_{D,J}^0} \sum_j Sj^0 \times P_{D,j} \tag{8}$$

$$Expo_{S,D}^1 = \frac{1}{N_{D,J}^1} \sum_j Sj^1 \times P_{D,j} \tag{9}$$

where

- $Expo^0_{S,D}$ is department (D)' exposition to media Salience (S) of immigration 3 weeks before (0) the Bataclan.

- $Expo^1_{S,D}$ is department (D)' exposition to media Salience (S) of immigration 3 weeks after (1) the Bataclan.

- $N^0_{D,J}$ is the total number of news Media (J) present in department (D) 3 weeks before (0) the Bataclan.

- $N^1_{D,J}$ is the total number of news Media (J) present in department (D) 3 weeks after (1) the Bataclan.

- Sj^0 is the salience of immigration news within media (j) three weeks before (0) the Bataclan.

- Sj^1 is the salience of immigration news within media (j) three weeks after (1) the Bataclan.

- $P_{D,j}$ is the weight of media (j) within department D where weight is measured as market share.

In the final step we compute the percentage change in media salience from before the 13th November 2015 terrorist attack to after the attack:

$$\Delta\_Expo_{S,D} = \frac{Expo^1_{S,D} - Expo^0_{S,D}}{Expo^0_{S,D}} \times 100 \tag{10}$$

Where

- $\Delta\_Expo_{S,D}$ is the percentage change in Department (D)' exposition to media salience of immigration from before the Bataclan to after the Bataclan.

- $Expo^0_{S,D}$ is department (D)' exposition to media Salience (S) of immigration 3 weeks before (0) the Bataclan.

- $Expo^1_{S,D}$ is department (D)' exposition to media Salience (S) of immigration 3 weeks after (1) the Bataclan.

As an additional check for our identification strategy, we constructed an alternative measure of media salience that we call $\Delta\_Expo_{S2,D}$ closely related to the first measure $\Delta\_Expo_{S,D}$. The only difference is that in the construction $\Delta\_Expo_{S2,D}$ we consider words related to immigration instead of news articles about immigration. $\Delta\_Expo_{S2,D}$ therefore measures the percentage change in a commune exposition to immigration related words in the press from before the 13th November 2015 terrorist attack to after the attack.

3.7.2 Measures of exposition to media tone of immigration news

The final variable of interest that we construct measures the percentage change in a commune exposition to media tone of immigration news from before the 13th November 2015 terrorist attack to after the attack. To compute the percentage change in a commune level exposition to media tone of immigration news, we first compute the tone of each immigration news using equation 2.

In the second step, we compute each department exposition to media tone of immigration news before and after the 13th November 2015 terrorist attack as follow:

$$Expo^0_{T,D} = \frac{1}{N^0_{D,I}} \sum_j \sum_i T^0_i \times P_{D,j} \qquad (11)$$

$$Expo^1_{T,D} = \frac{1}{N^1_{D,I}} \sum_j \sum_i T^1_i \times P_{D,j} \tag{12}$$

where

- $Expo^0_{T,D}$ is department (D)' exposition to immigration media Tone (T) 3 weeks before (0) the Bataclan.

- $Expo^1_{T,D}$ is department (D)' exposition to immigration media Tone (T) 3 weeks after (1) the Bataclan.

- $N^0_{D,I}$ is the total number of news article about immigration published 3 weeks before (0) the Bataclan by all media present in department D.

- $N^1_{D,I}$ is the total number of news article about immigration published 3 weeks after (1) the Bataclan by all media present in department D.

- T^0_i is the tone score of article i. where i can be any news article about immigration published 3 weeks before (0) the Bataclan, by any media present in department D.

- T^1_i is the tone score of article i. where i can be any news article about immigration published 3 weeks after (1) the Bataclan, by any media present in department D.

- $P_{D,j}$ is the weight (P) of media (j) within department D, with weight measured as market share.

In the final step, we compute the percentage change in media tone of immigration from before the Bataclan to after the Bataclan:

$$\Delta\_Expo_{T,D} = \frac{Expo^1_{T,D} - Expo^o_{T,D}}{Expo^o_{T,D}} \times 100 \tag{13}$$

- $\Delta\_Expo_{T,D}$ is the percentage change in Department (D)' exposition to media tone of immigration from the Bataclan to after the Bataclan.

- $Expo^{o}_{T,D}$ is department (D)' exposition to media Tone (T) of immigration 3 weeks before (0) the Bataclan.

- $Expo^{1}_{T,D}$ is department (D)' exposition to media Tone (T) of immigration 3 weeks after (1) the Bataclan.

Lastly, we tried to control as much as we can for factors other than change in exposition in media coverage of immigration that might influence a commune to change its vote share for the FN from the 2010 election to the 2015 election. Our list of control variables include: The vote share of the commune for the FN during the 2012 presidential election, the percentage change in the share of immigrants at department level in between the two elections, the percentage change in the share of unemployment at department level in between the two elections, the percentage of people in the commune that is older than 60, the level of poverty of the commune. The model estimated is as follow:

$$\%\Delta\_Vote_j = \alpha_0 + \alpha_1 * \%\Delta\_Media\_Exposition j + \zeta' X_j + u_j \qquad (14)$$

Where

- $\underline{\%\Delta\_Vote_j}$ is the percentage change of vote share for the FN from the 2010 to the 2015 regional election within commune J (36,000 communes);

- $\%\Delta\_Media\_Exposition j$ represents the variables of interest namely, $\Delta\_Expo_{S,D}$, $\Delta\_Expo_{S2,D}$ and $\Delta\_Expo_{T,D}$. They measure the percentage change from before to after the terrorist attack of November 13th 2015 of commune j's exposition (36,000 communes) to media salience and tone of immigration coverage.

- X are *Controls* including the vote share of the commune J for the FN during the 2012 presidential election, the percentage change in the share of immigrants in commune J in between the two elections, the percentage change in the share of unemployment in commune J in between the two elections, the percentage of people in commune J that is older than 60, the level of poverty in commune J.

4   Results

We now present the result of model 1 in which we consider the impact of the three terrorist attacks combined on the salience and tone of immigration news (See table 2 and 3). Figure 15 condenses information contained within regression table 2 and figure 16 information in regression table 3. According to the model estimated, in the immediate weeks following a terrorist attack, there is an increase in media attention to the issue of immigration. The increase persists until the seventh week after a terrorist attack. The peak of media attention to immigration due to terrorism is reached on the next week following a terrorist attack with 0.5 percentage point increase in the share of immigration news within all news which is not a negligible increase considering that on average 1.63% of all news are devoted to Immigration. To answer the question of how immigration is discussed following a terrorist attack, we look at the estimates for the sub-components of immigration. Period of terrorism (week) has no significant impact on the salience and tone of news that link immigration to humanitarian issue ("Immigration + humanitarian") and news that link immigration with economic issues ("immigration + economy") suggesting that following a terrorist attack, immigration is not linked to economic issues or discussed in the humanitarian context. Without surprise, according to the model estimates, following a terrorist attack, there are more news that link immigration with security concern ("immigration + (in)security") and Muslims ("immigration + Muslims"). This is to say that, following a terrorist attack,
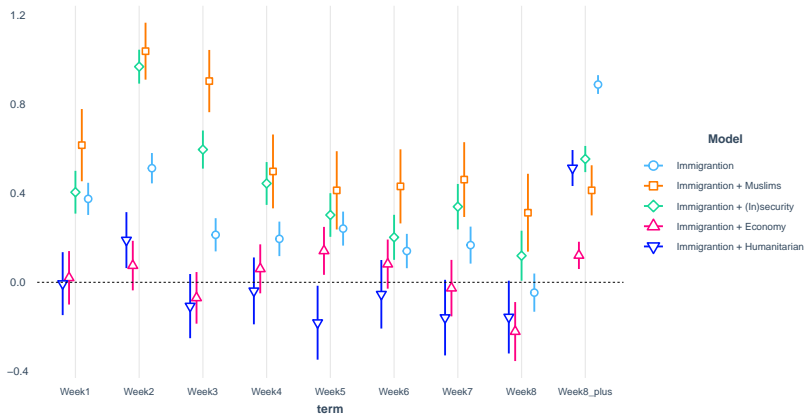
Figure 15: Weekly estimates - Salience

for about seven weeks, the media publish more stories that discursively link immigration with religious fundamentalism and security issues.

We now turn our attention to the tone of immigration news articles published after terrorist attacks. According to the tone model estimated (figure 16), following a terrorist attack, the tone of news articles published about immigration are on average more negative. However, unlike salience, the negativity remains for a shorter period, only three weeks after a terrorist attack. Regarding the magnitude of the impact, during the three weeks, the tone of news articles for all the categories (except for immigration + economy) decrease to about -0.01 which is a considerable deterioration in the general tone that is used to discuss immigration since the mean tone for the study period is measured at +0.01 with a standard deviation of 0.016. The established causal link between terrorism and the salience and tone of immigration news articles is robust to removal of all news articles with a focus on terrorism from the database. We also estimated the impact of each of the terrorist attacks individually, see appendix for results.

Table 2: Weekly estimates on Salience

	Immigration	Muslims	Security	Economy	Humanitarian
			count.articles		
	(1)	(2)	(3)	(4)	(5)
Week1	0.37***	0.62***	0.40***	0.02	−0.01
	(0.04)	(0.08)	(0.05)	(0.06)	(0.07)
Week2	0.51***	1.04***	0.97***	0.08	0.19***
	(0.03)	(0.07)	(0.04)	(0.06)	(0.06)
Week3	0.21***	0.90***	0.60***	−0.07	−0.11
	(0.04)	(0.07)	(0.04)	(0.06)	(0.07)
Week4	0.20***	0.50***	0.44***	0.06	−0.04
	(0.04)	(0.08)	(0.05)	(0.06)	(0.08)
Week5	0.24***	0.41***	0.30***	0.14**	−0.18**
	(0.04)	(0.09)	(0.05)	(0.05)	(0.08)
Week6	0.14***	0.43***	0.20***	0.08	−0.05
	(0.04)	(0.08)	(0.05)	(0.06)	(0.08)
Week7	0.17***	0.46***	0.34***	−0.03	−0.16*
	(0.04)	(0.09)	(0.05)	(0.06)	(0.09)
Week8	−0.05	0.31***	0.12**	−0.22***	−0.16*
	(0.04)	(0.09)	(0.06)	(0.07)	(0.08)
Week8_plus	0.89***	0.41***	0.55***	0.12***	0.51***
	(0.02)	(0.06)	(0.03)	(0.03)	(0.04)
Naufrage	−0.25***	−0.12	−0.03	−0.20***	−0.33***
	(0.03)	(0.08)	(0.04)	(0.05)	(0.06)
Constant	1.84***	0.69	0.79***	1.50***	1.08***
	(0.13)	(0.45)	(0.17)	(0.14)	(0.22)
Observations	48,111	3,543	12,799	8,074	9,929
R²	0.75	0.72	0.76	0.67	0.57
Adjusted R²	0.75	0.72	0.75	0.67	0.57

Note: *p<0.1; **p<0.05; ***p<0.01
Quarter FE: YES
Journal FE: YES

Table 3: Weekly estimates - Tone

	Immigration	Muslims	Security	Economy	Humanitarian
			media_tone		
	(1)	(2)	(3)	(4)	(5)
Week1	−0.01***	−0.01***	−0.01***	−0.002	−0.01***
	(0.0004)	(0.002)	(0.001)	(0.001)	(0.001)
Week2	−0.01***	−0.01***	−0.01***	−0.003***	−0.01***
	(0.0004)	(0.002)	(0.001)	(0.001)	(0.001)
Week3	−0.01***	−0.01***	−0.01***	−0.005***	−0.01***
	(0.0004)	(0.002)	(0.001)	(0.001)	(0.001)
Week4	−0.005***	0.001	−0.002**	−0.005***	−0.002
	(0.0004)	(0.002)	(0.001)	(0.001)	(0.002)
Week5	−0.01***	−0.0005	−0.002**	−0.01***	−0.003
	(0.0004)	(0.002)	(0.001)	(0.001)	(0.002)
Week6	−0.004***	−0.002	−0.002*	0.001	−0.001
	(0.0004)	(0.002)	(0.001)	(0.001)	(0.002)
Week7	−0.005***	−0.01**	−0.002**	−0.01***	−0.01***
	(0.0004)	(0.002)	(0.001)	(0.001)	(0.002)
Week8	−0.002***	−0.001	−0.003***	−0.004***	−0.01***
	(0.0005)	(0.002)	(0.001)	(0.001)	(0.002)
Week8_plus	−0.001***	−0.003**	−0.003***	−0.002***	−0.003***
	(0.0002)	(0.001)	(0.001)	(0.001)	(0.001)
Naufrage	−0.004***	0.001	−0.001	−0.002**	−0.01***
	(0.0003)	(0.002)	(0.001)	(0.001)	(0.001)
Constant	0.04***	0.03***	0.02***	0.04***	0.03***
	(0.001)	(0.01)	(0.004)	(0.003)	(0.004)
Observations	48,418	3,567	12,901	8,121	9,968
R²	0.45	0.15	0.22	0.30	0.41
Adjusted R²	0.45	0.14	0.22	0.30	0.40

Note: *p<0.1; **p<0.05; ***p<0.01
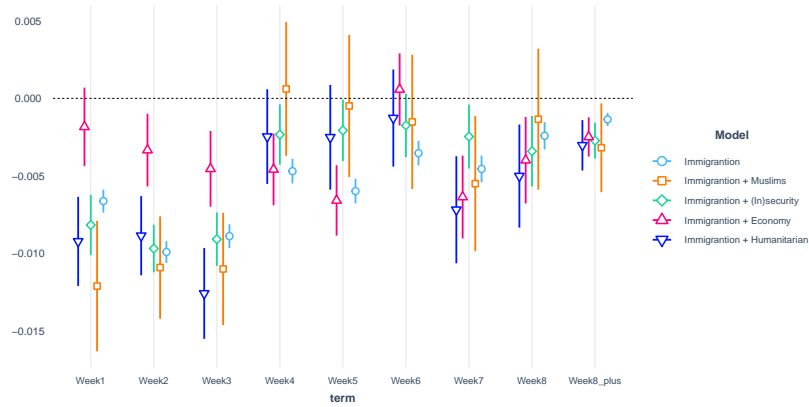Quarter FE: YES
Journal FE: YES

Figure 16: Weekly estimates - Tone

4.1 Impact per media groups

We now look at impact of the attacks across media groups with different political orientation. We show result only for the categories Immigration, Immigration + Muslims and Immigration + (In)security in this section as these are the categories that react to terrorism. For the classification of the journals, we adopted the classification of the Paris Institute for political studies. The classification of the Paris Institute does not include the regional press, we have grouped the regional press into a single dummy.

4.1.1 Right leaning media

The media within our dataset that are classified to the right of the political spectrum include: Valeurs Actuelles (n=784), Le Figaro (n=2960), Le Point (n=426), L'Express (n=398). Figures 17 and 18 show how the media of the right reacted to the terrorist attacks. Although the estimates are now less precise due to the considerable reduction in the sample size, we can still observe that the behavior of the right-leaning media is not very different from the general media behavior. The share of general immigration news increased for a week following the attack, news linking immigration to Muslims and security issues increased for about five weeks. In terms of tone, the tone of all
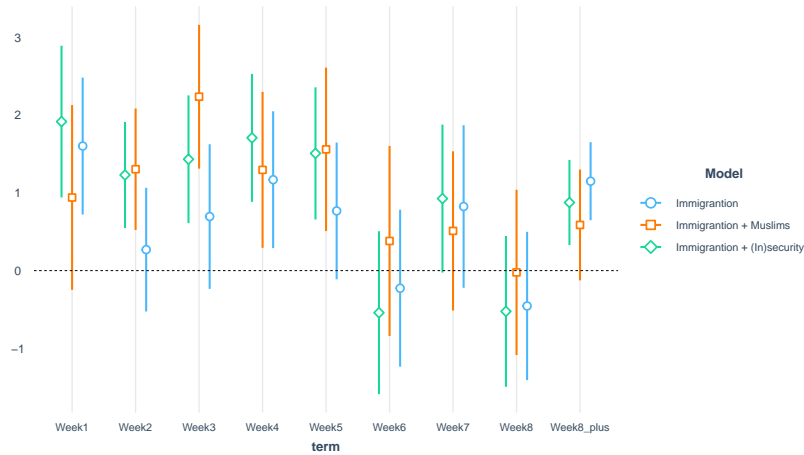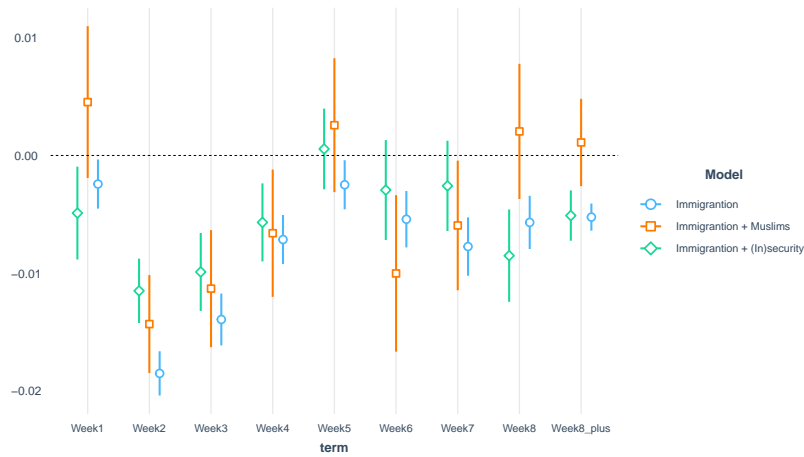
Figure 17: Right leaning media - Salience

Figure 18: Right leaning media - Tone

sub-components deteriorated for about three weeks, starting week two.

4.1.2 Media classified to Center

The media considered for the class center include: Le Monde (n=3302), Aujourd'hui en France (n=1085). The reaction of the media classified to the center of the political spectrum as shown in figures 19 and 20 is also not very different from the general media reaction. We observe an increase in salience for the general immigration news
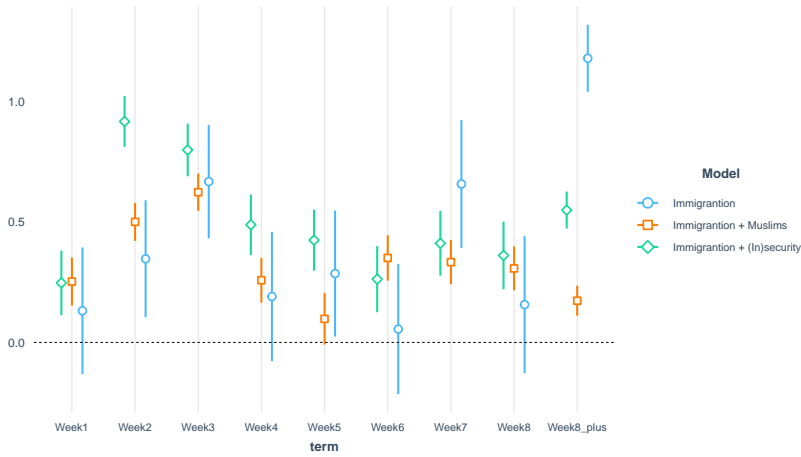
Figure 19: Center - Salience
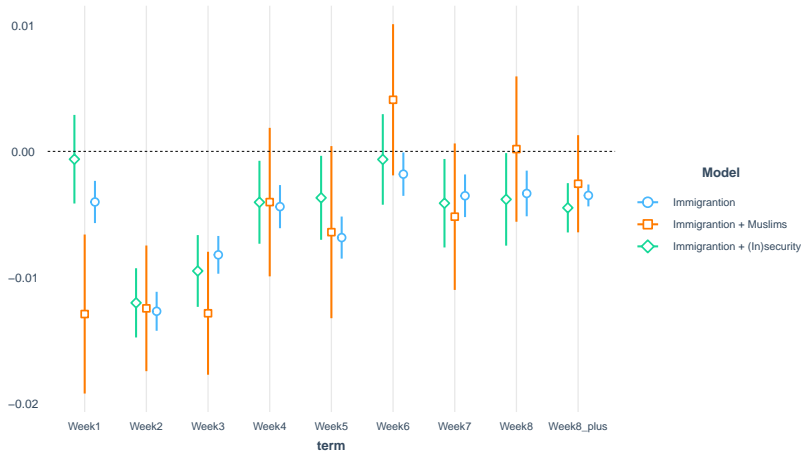
Figure 20: Center - Tone

for two weeks starting week two. The share of news linking immigration to Muslims or security also increased for about 8 weeks. In terms of tone, almost all sub-components experienced a deterioration in tone for about three weeks.

4.1.3   Left leaning Media

The media classified to the left include: Liberation (n=1795) and L'Humanite (n = 1347). Figure 21 and 22 show the reaction of the left-leaning media. These media

Figure 21: Left leaning Media - Salience
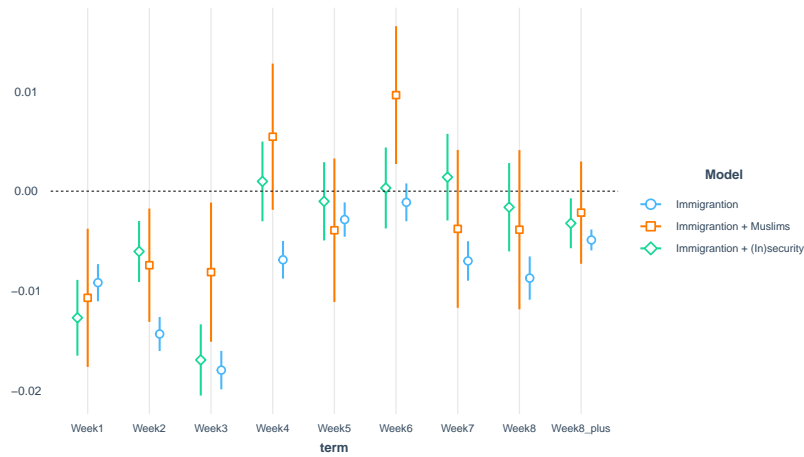
Figure 22: Left leaning Media - Tone

seem to be reacting much more strongly compared to general tendency. In terms of salience, the magnitude of the impact is about three times higher on week two and lasts for six weeks for the general immigration news and for eight weeks for news linking immigration to Muslims or security issues. The tone of immigration news published by the left-leaning media is also more negative, the negativity for most sub-components lasts for four weeks following a terrorist attack which is one week longer than the general tendency.
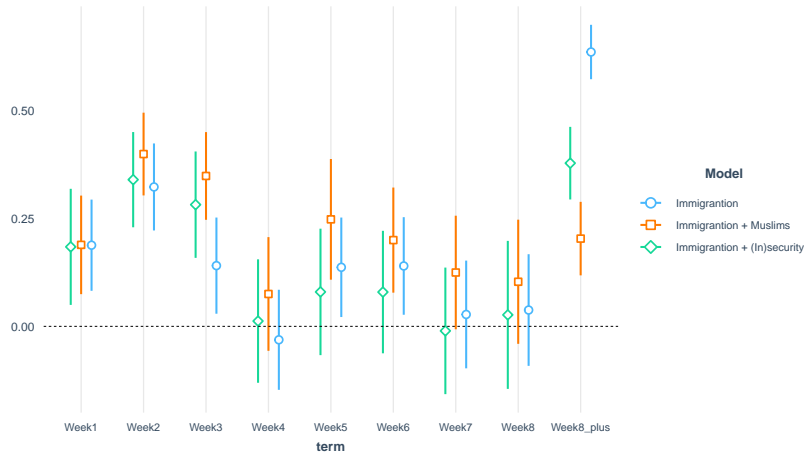
Figure 23: The regional press - Salience
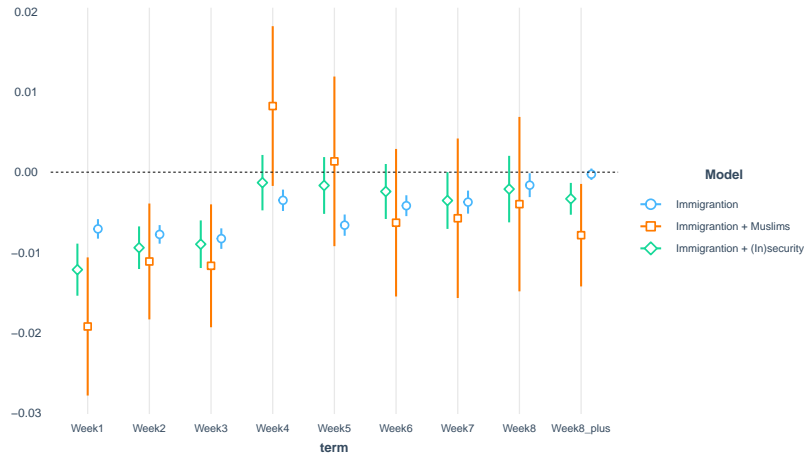
Figure 24: The regional press - Tone

4.1.4 The regional press

We last consider the reaction of the regional press as shown in figures 23 and 24. No considerable difference is spotted for the regional press either. The share of the general immigration news and news linking immigration to Muslims or security issues increased for about three weeks. The tone of all sub-components (except for news linking immigration economic issues) deteriorated for about three weeks.

4.2   Impact on vote share of the FN

We now present the result of model 2 in which we consider the impact of a change in exposition in media coverage of immigration following a terrorist attack on the vote outcome of an anti-immigration party (the FN) during the 2015 french regional election. Model 2 is based on findings from model 1 according to which, the November 13th 2015 terrorist attack had a significant impact on the salience of general immigration news and news that links immigration with Muslims and security issues with the first category increasing for two weeks and the last two categories increasing for about five weeks before returning to their level before the attack (See appendix). The tone of the general immigration news published after the November 13th 2015 terrorist attack was also on average more negative for about eight weeks. The tone of immigration news that links immigration with Muslims and security issues also deteriorated for about two to three weeks after the attack. We also learn from model 1 that the reaction of the media was not homogeneous. Based on these findings, the question we ask here is the following: Did the communes that were exposed to the most increase in media salience and the most deterioration in media tone of immigration coverage are the ones where the FN increased the most its vote share? We explore this question using a simple Ordinary Least Squares (OLS) regression model and focusing separately on general immigration news, news that links immigration with Muslims and news that links immigration with security issues.

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[3]list of the regional press in our data together with the number of immigration news published by each media between parentheses: Ouest-France (4579), La Voix du Nord (4257), Sud-Ouest (3448), LEst Républicain (2213), Le Progrès (2036), Le Parisien (1861), La République des Pyrénées (1734), Midi Libre (1719), Le Télégramme (1419), La Nouvelle République du Centre-Ouest (1612), LIndépendant (1042), Presse Océan (738), Le Journal de Saône et Loire (737), Le Bien Public (619), Charente Libre (546), Paris-Normandie (544), Centre Presse Aveyron (514), La Nouvelle République Dimanche (188), Acteurs Publique (86), Havre Libre (25), Direct Matin - Lyon Plus (11), ToulÉco (5), LHebdo de Charente-Maritime (2), Le Havre Presse (1)

4.2.1 General immigration news

The result of model 2 using general immigration news confirm our intuition. Higher level of immigration visibility in the news has a strong and positive bearing on commune-level voting in favor of anti-immigration parties, here the FN. For the regression table 4 we consider three variable of interest. The first variable of interest (column 1), Δ_Expo_Immigration_Muslims_News(%) is a measure of a commune exposition to general immigration news caused by terrorism. The variable is constructed following steps described from equation 6 to equation 10. It is a percentage change in a commune level of exposition from before the November 13th 2015 terrorist attack to after the attack to general immigration news, where exposition to general immigration news is measured as the weighted average of the share of general immigration news within all news. We find that each percentage point increase in a commune exposition to immigration news following a terrorist attack, is expected to raise the share of the vote for the FN by 0.18%. Our second variable of interest is an alternative measure of media salience, perhaps a better measure. Δ_Expo_Immigration_Words(%) (column 2) is measure of a commune exposition to words in the news that are related to immigrants. Unlike the first measure of media salience that gives equal weight to news article that mention once immigration and another one that mention it ten times, this second measure better capture the relative importance of immigration issues in the media, It is a weighted average of the share of immigration related words within all words in the media. We find that each percentage point increase in a commune level exposition to immigration related words in the media following a terrorist attack, is expected to raise the share of the vote for the FN by 0.56%. Lastly, our third variable of interest is a measure of change in exposition to the tone adopted to discuss immigration issues by the media. Δ_Expo_Immigration_Tone(%) (column 3) is measured as a percentage change in the weighted average general tone adopted by the media following the terrorist attack. The variable is constructed following steps described from equation 11 to equation 13. We

Table 4: Immigration

	Dependent variable:		
	Δ_Vote_FN(%)		
	FN	FN	FN
	(1)	(2)	(3)
Δ_Expo_Immigration_News(%)	0.18***		
	(0.02)		
Δ_Expo_Immigration_Words(%)		0.56***	
		(0.03)	
Δ_Expo_Immigration_Tone(%)			−0.02***
			(0.002)
Δ_Immigrant_Population(%)	3.87***	3.67***	3.56***
	(0.08)	(0.08)	(0.08)
Δ_Unemployment(%)	0.16***	0.17***	0.18***
	(0.02)	(0.02)	(0.02)
Δ_GDP(%)	3.82***	3.27***	3.64***
	(0.23)	(0.22)	(0.22)
Presidential_Election_2012(%)	1.75***	1.29***	1.76***
	(0.08)	(0.08)	(0.08)
Share_Old_People(%)	2.25***	2.13***	2.35***
	(0.08)	(0.08)	(0.08)
Share_Poverty(%)	−1.26***	−1.43***	−1.35***
	(0.08)	(0.08)	(0.08)
Constant	18.65***	57.80***	16.28***
	(3.75)	(4.45)	(3.72)
Observations	36,360	36,360	36,360
R^2	0.14	0.15	0.14
Adjusted R^2	0.14	0.15	0.14

Note:	*p<0.1; **p<0.05; ***p<0.01

find that each percentage point decrease in the immigration tone score a commune is exposed to is expected to raise the share of the vote for the FN by 0.02%. The results are robust to controls for changes in the immigrant population, unemployment rates, GDP, the commune preference for the FN during the 2012 presidential election, the share of old people and the level of poverty of the commune at the time of the election.

4.2.2 Immigration + Muslims

We now look at the result of model 2, this time considering solely news that links immigration to Muslims. The variable of interest are the same as in the previous section. Δ_Expo_Immigration_Muslims_News(%) is measure of change in exposition to news that link immigration to Muslims. the variable measures the percentage change in the share of news that link immigration to Muslims within all news from before the

Table 5: Immigration + Muslims

	Dependent variable:		
	Δ_Vote_FN(%)		
	FN	FN	FN
	(1)	(2)	(3)
Δ_Expo_Immigration_Muslims_News(%)	0.06***		
	(0.01)		
Δ_Expo_Immigration_Muslims_Words(%)		0.02***	
		(0.003)	
Δ_Expo_Immigration_Muslims_Tone(%)			−0.001***
			(0.0002)
Δ_Immigrant_Population(%)	3.78***	3.67***	3.76***
	(0.08)	(0.08)	(0.08)
Δ_Unemployment(%)	0.17***	0.17***	0.17***
	(0.02)	(0.02)	(0.02)
Δ_GDP(%)	3.34***	3.43***	3.71***
	(0.23)	(0.22)	(0.23)
Presidential_Election_2012(%)	1.73***	1.66***	1.72***
	(0.08)	(0.08)	(0.08)
Share_Old_People(%)	2.33***	2.32***	2.28***
	(0.08)	(0.08)	(0.08)
Share_Poverty(%)	−1.32***	−1.35***	−1.29***
	(0.08)	(0.08)	(0.08)
Constant	15.81***	16.53***	13.60***
	(3.72)	(3.72)	(3.74)
Observations	36,360	36,360	36,360
R^2	0.14	0.14	0.14
Adjusted R^2	0.14	0.14	0.14
Note:			*p<0.1; **p<0.05; ***p<0.01

terrorist attack to after the attack. We find that each percentage point increase in a commune exposition to news that link immigration to Muslims following a terrorist attack, is expected to raise the share of the vote for the FN by 0.06%. Our second variable of interest Δ_Expo_Immigration_Muslims_Words(%) is an alternative measure of media salience, it measures change in exposition to words related to Muslims within immigration news articles. We find that each percentage point increase in a commune exposition to words related to Muslims within immigration news articles following a terrorist attack, is expected to raise the share of the vote for the FN by 0.02%. Lastly, our third variable of interest is a measure of change in exposition to the tone adopted to discuss immigration while linking it to Muslims. We find that each percentage point decrease in the tone of news articles that link immigration to Muslims a commune is exposed to following a terrorist attack, is expected to raise the share of the vote for the FN by 0.001%.

Table 6: Immigration + Security

	Dependent variable:		
	Δ_Vote_FN(%)		
	FN	FN	FN
	(1)	(2)	(3)
Δ_Expo_Immigration_Security_News(%)	−0.25***		
	(0.01)		
Δ_Expo_Immigration_Security_Words(%)		0.17***	
		(0.01)	
Δ_Expo_Immigration_Security_Tone(%)			−0.03***
			(0.002)
Δ_Immigrant_Population(%)	3.67***	3.80***	3.46***
	(0.08)	(0.08)	(0.08)
Δ_Unemployment(%)	0.17***	0.17***	0.18***
	(0.02)	(0.02)	(0.02)
Δ_GDP(%)	2.08***	4.12***	3.63***
	(0.23)	(0.22)	(0.22)
Presidential_Election_2012(%)	1.35***	1.83***	1.79***
	(0.08)	(0.08)	(0.08)
Share_Old_People(%)	2.04***	2.15***	2.27***
	(0.08)	(0.08)	(0.08)
Share_Poverty(%)	−1.49***	−1.18***	−1.22***
	(0.08)	(0.08)	(0.08)
Constant	63.18***	−1.65	11.11***
	(4.24)	(3.80)	(3.73)
Observations	36,360	36,360	36,360
R^2	0.15	0.15	0.14
Adjusted R^2	0.15	0.15	0.14
Note:			*p<0.1; **p<0.05; ***p<0.01

4.2.3 Immigration + Security

The last category of news that we consider are news that link immigration with security issues. Against expectation, our first variable of interest here has the opposite sign of the previous two variables suggesting that increase in exposition to news that link immigration to security issues lead to less vote for the FN. Nonetheless, when we consider our alternative measure, which as we have said is a better measure of media salience, we do find that increase exposition to security related words within news about immigration following a terrorist attack lead to more vote for the FN. Lastly we also document that the tone matters, deterioration in the tone of news articles that link immigration to security issues following a terrorist attack lead to more vote for the FN.

5 Conclusion

In this paper, we applied techniques in natural language processing together with regression to test how immigrants are portrayed in French newspapers following a terrorist attack. We specifically tested whether an extreme event like terrorism causes a shift both in the intensity of reporting and content of the reports about immigrants. We also assessed the impact of the change in the media communication about immigration following the November 13th 2015 terrorist attack on the vote outcome of an anti-immigration party, the FN ("Front national ") of Marine Le Pen. This allowed us to assess the indirect role played by terrorism in the success of an anti-immigration party.

To sum up the findings, we find empirical support for the argument that media attention to the topic of immigration is influenced by external events such as terrorism. Indeed, terrorism increases media attention to the issue of immigration for about seven to eight weeks. During that period, immigration is often discussed by linking it to Muslims or security issues. The general tone adopted by the media to discuss immigration following a terrorist attack is also more negative but for a shorter period, only three weeks. We looked at the individual impact of the three major attacks that occurred in France in recent years, namely, the Charlie Hebdo shooting of January 7, 2015, the terrorist attack in Paris on November 13, 2015, and the terrorist attack in Nice on July 14, 2016. All three attacks caused an increase in media attention to the issue of immigration. In terms of salience, it is the attack of November 13, that resulted in the most increase in media salience while the attack of Nice caused the most deterioration in the tone adopted to discuss immigration. We also introduce a comparative dimension into our study by grouping media based on their political orientation. This allows us to assess the effect of political orientation on the portrayal of immigrants. The result of the analysis shows that media with different political orientations adopt a similar way of reporting following the attack with an increase in media attention to immigration for seven to eight weeks and a deterioration of the tone adopted to discuss immigration

for three weeks following the attack before returning to the pre-attack level. The only group that reacted differently are the left-leaning media. Those journals that are a priori more positive about immigration reacted much strongly to the attacks both in terms of salience and tone adopted. Regarding the impact of media communication on the vote outcome of anti-immigration parties, we document that the salience of the immigration issue in the news following a terrorist attack is beneficial for anti-immigrant parties. We find that increased media attention to the issue of immigration following a terrorist a terrorist attack and before and election is associated with increase in vote share for anti-immigration parties and deterioration in the tone adopted to discuss immigration is associated with increase vote share for anti-immigration parties.

Our study contributes to the media coverage literature as it seriously investigates the idea that external events such as terrorism influence media communication about immigration. We also contribute to the electoral studies literature as this study represents the first attempt to look at the impact of terrorism induced change in media communication about immigration on the vote outcome of an anti-immigration party. Last, we present the elaboration and the evaluation of a new French lexicon for the automated tone assessment of french news articles about immigration. The dictionary is tested against a body of human-coded news content. Results suggest that the dictionary developed here, performs well. The dictionary is freely available and easily adaptable to other political news, which makes the dictionary proposed here a valuable step forward in automated content analysis of political news in French. Our results have also implications on policies, by documenting that terrorism contributed to the success of anti-immigration parties, we hope to start the alert about potential long-lived and more profound changes to our societies that is being caused by terrorism.

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Appendix A Robustness Tests

A.1 Model 1 estimates - restricted sample

The most relevant remark made to us during early presentations of our results is the following:

> *It is normal to observe an increase in the number of articles with the keywords "Immigration", "Migrant" etc. because the three terrorist attacks that you are studying were perpetrated by individuals with an immigration background.*

This comment suggests that a large part of the articles that we identify after the attacks are not necessarily articles that discuss immigration but rather articles that discuss terrorism while barely mentioning the term "immigrant" with the only purpose of revealing the immigration background of the perpetrators of the terrorist attacks.

To address this concern, we identify and remove any news article where one of the perpetrator of the terrorist attacks is cited. The objective here is to identify and remove any news article where the immigration background of the perpetrators of the attacks is mentioned as these are news articles within which immigration might not necessarily be the main topic of discussion. Model 1 is therefore re-estimated on the remaining news articles in the database. Nonetheless, results are not very different (figures 25 and 26) suggesting that the increase in salience or deterioration of the tone of news article about immigration following a terrorist attack is not driven by the increase or deterioration of the tone of news articles about terrorism that mention the immigration background of the perpetrators of the terrorist attacks.
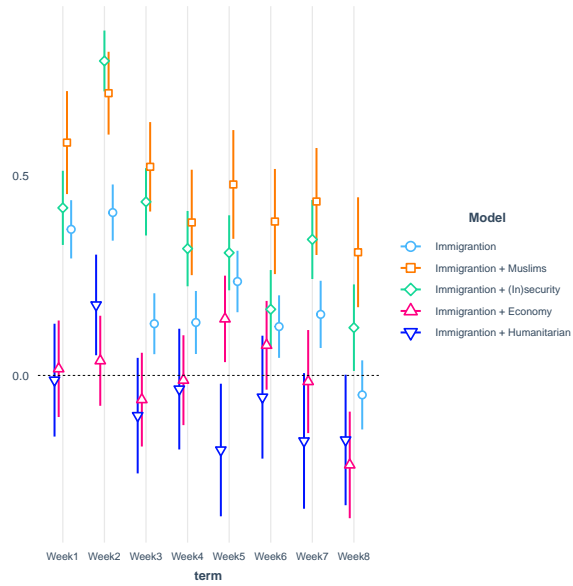
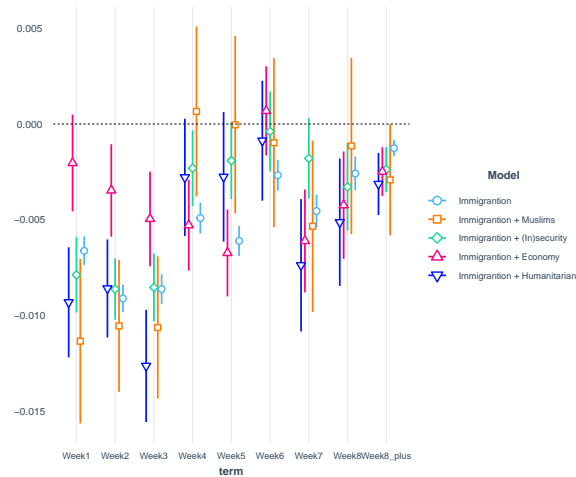Figure 25: Weekly estimates - Salience

Figure 26: Weekly estimates - Tone

A.2   Model 1 estimates - Charlie Hebdo

A.2.1   Salience

To test that our results are not driven by a single terrorist attack, we consider here the impact of the terrorist attacks individually, we start with the Charlie Hebdo shoot-
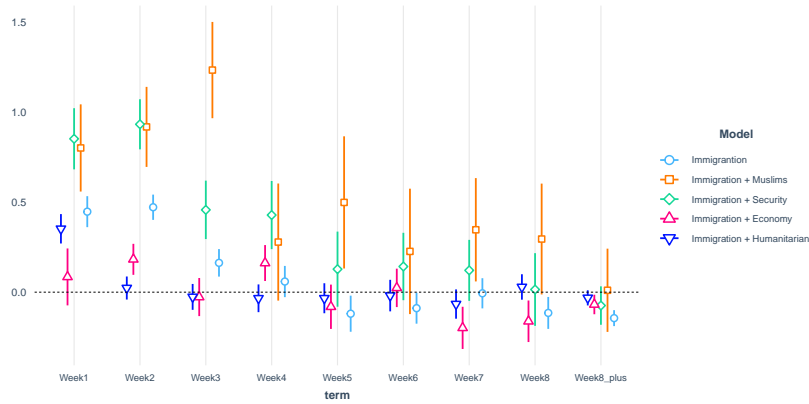
Figure 27: Charlie Hebdo - Salience

ing. To estimate the impact the of Charlie Hebdo attack on the salience and tone of immigration news, we re-estimate model 1 and consider only news articles published three months before and after the Charlie Hebdo shooting. As we can see in Figure 27, the impact of Charlie Hebdo alone on the salience of Immigrants news is still not that different from our previous finding. Charlie Hebdo alone caused an increase in the share of immigration news for about 3 weeks this time which is shorter compared to the general impact of the three terrorist attacks. The Sub-component immigration + Muslims and immigration + security are again the two categories that reacted in terms of salience with both categories increasing for about seven weeks before returning to their level before the attack.

A.2.2 Tone

Regarding the tone of immigration news published after Charlie Hebdo, it is surprising that Charlie Hebdo did cause immigration news to be negative for a shorter period. Only immigration news (for all categories except for immigration + economy) published the week of the attack were more negative. Immigration news published in the subsequent weeks were not more negative than those published before except for week seven, leaving us wondering what happened during week seven (16 February to 22 February

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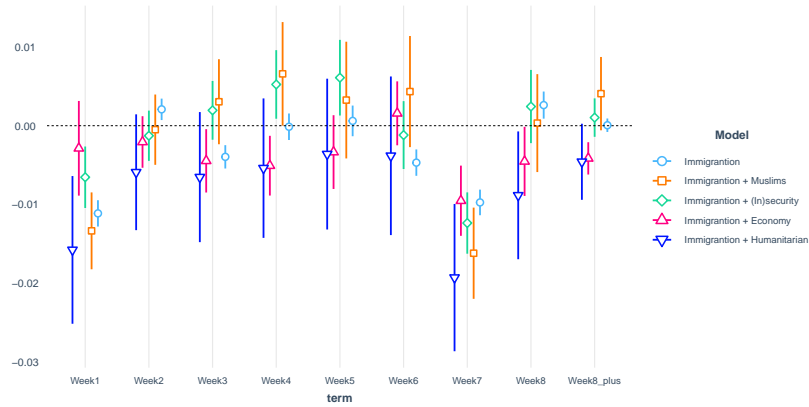
Figure 28: Charlie Hebdo - Tone

2015).

A.3 Model 1 estimates - The Bataclan

A.3.1 Salience

The next attack is the attack of November 13, 2015, that we call here the Bataclan. Similarly, to estimate the impact of the Bataclan on the salience and tone of immigration news, we re-estimate model 1 and only consider news articles published three months before and after the Bataclan. Figure 29 shows that the Bataclan had a significant impact on the salience of immigration news but this time for a shorter period only two weeks. The other two sub-components of immigration that reacted to the Bataclan are immigration news that links immigration with Muslims and security issues, both categories increased for about five weeks before returning to their level before the attack.

Figure 29: The Bataclan - Salience

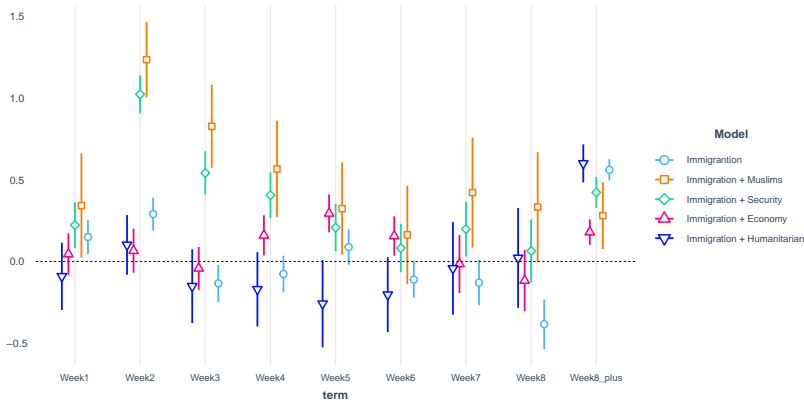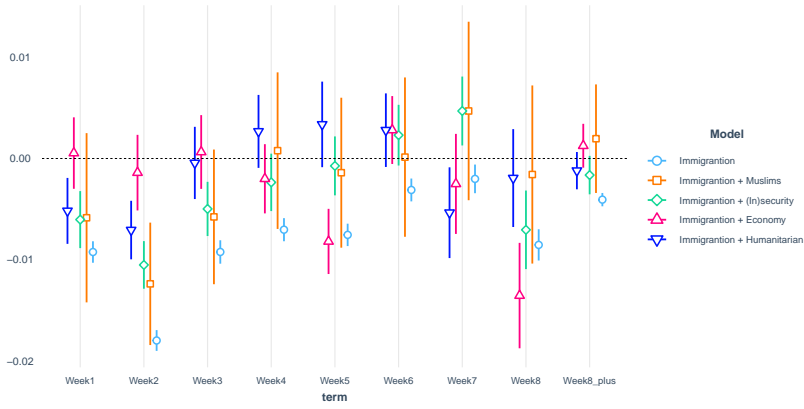Figure 30: The Bataclan - Tone

A.3.2 Tone

The tone of the general immigration news published after the Bataclan was on average more negative and for a longer period (eight weeks). The tone of the other sub-components (except for news linking immigration with economic issues) also deteriorated for about two to three weeks after the attack.
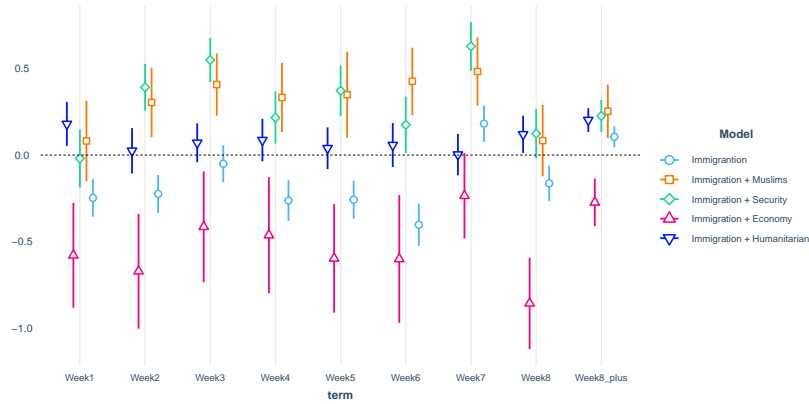
Figure 31: Nice - Salience

A.4 Model 1 estimates - The Nice attack

A.4.1 Salience

The last terrorist attack that we consider is the attack of July 14, 2016, in Nice that we call here the Nice attack. Similarly, to measure the impact of the Nice attack on the salience and tone of immigration news, we re-estimated model 1 considering news articles published three months before and after the Nice attack. The results can be seen in figure 31, the Nice attack did not cause an increase in the general immigration news. The share of news linking immigration to Muslims or security issues did however increase slightly starting week two for about six weeks before returning to their level before the attack.

A.4.2 Tone

Regarding the tone, the general immigration news experienced a deterioration in tone for a much longer period this time, about eight weeks. The tone of the other sub-components (except for news linking immigration to economic issues) also deteriorated for about three weeks after the attack.
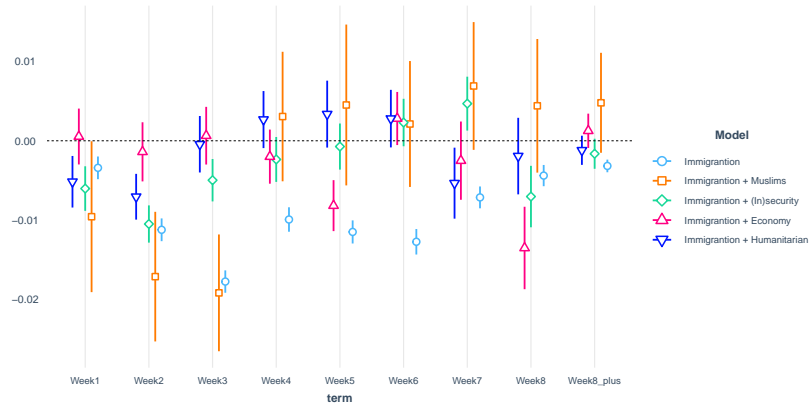
Figure 32: Nice - Tone

A.5 Model 1 estimates - All other minor terrorist attacks

For the sake of completeness we finally consider the impact of all other minor terrorist attacks that occurred in France within our study period on the salience and and tone of immigration news articles. The complete list includes:

1. The December 20, 2014 attack on a police station in Joué-lès-Tours: The 2014 attack on a police station in Joué-lès-Tours was a terrorist attack during which an individual armed with a knife entered the Joué-lès-Tours police station, injuring three people, two of them seriously. He was shot at the scene by the police. The author of the attack is a convert to Islam, recently radicalized. He shouted "Allahu akbar" during his attack.

2. The attack of February 3rd, 2015 in Nice: The February 3, 2015 Nice attack was a terrorist attack that occurred on February 3, 2015 in Nice, France. Three soldiers guarding a Jewish community center were attacked with a knife by Moussa Coulibaly, a solitary terrorist.

3. The failed attack on churches in Villejuif on April 19, 2015: The failed attack on churches in Villejuif was a terrorist action carried out by an Algerian student, Sid Ahmed Ghlam, who was convicted of the murder of Aurélie Châtelain and the

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preparation of an Islamist attack targeting two churches in Villejuif on 19 April 2015. On the day of the attack, Sid Ahmed Ghlam, heavily armed, killed Aurélie Châtelain while attempting to steal her car, but was shot and prevented from going to the churches where he planned to carry out the attack.

4. The attack of June 26, 2015 in Saint-Quentin-Fallavier: The Saint-Quentin-Fallavier attack was an Islamist terrorist attack perpetrated by a single individual on June 26, 2015 in an industrial gas production plant. The premises belonging to the company Air Products are located in an industrial site in the town of Saint-Quentin-Fallavier in Isère in the Rhône-Alpes region. The death toll was one, Hervé Cornara, murdered before the attack itself, and two employees injured in the explosion; Yassin Salhi was arrested on the spot. He committed suicide in prison on the evening of December 22, 2015.

5. The attack on the Thalys train on August 21, 2015: The Thalys train attack on August 21, 2015 was an aborted terrorist attempt with firearms that took place on board Thalys train 9364 from Amsterdam to Paris on the LGV North line, while it was in the vicinity of the town of Oignies, Pas-de-Calais.

6. The attack on a Parisian police station in January 2016: On January 7, 2016 in Paris, a man wearing a fake explosives belt showed up outside Goutte d'or police station and attacked police officers with a meat cleaver while shouting "Allahu Akbar!" He was shot by police officers when he did not obey the summons. The attempted attack took place on the first anniversary of the Charlie Hebdo shooting in 2015.

7. The Double murder on June 13, 2016 in Magnanville: The June 13, 2016 double murder in Magnanville was a jihadist terrorist attack targeting a couple of Interior Ministry officials (Jean-Baptiste Salvaing, a police officer, and Jessica Schneider, an administrative officer), carried out at their home on June 13, 2016 in the commune of Magnanville, Yvelines, France. They were killed with a knife by

Larossi Abballa, a radical Islamist claiming to be from the Islamic State. The gunman was shot during the RAID assault.

8. The attack of July 26, 2016 on the church of Saint-Étienne-du-Rouvray: The attack on the church of Saint-Etienne in Saint-Etienne-du-Rouvray is an Islamist terrorist attack committed on Tuesday, July 26, 2016. Two radical Islamists, Adel Kermiche, under judicial control, wearing an electronic bracelet, and Abdel Malik Nabil-Petitjean, murdered by slitting the throat and stabbing Father Jacques Hamel, a priest at the church of Saint-Étienne in Saint-Étienne-du-Rouvray, near Rouen, and seriously injured an 86-year-old parishioner. The assailants then held three other worshippers hostage before being shot by the police.

9. The September 2016 failed attack on Notre-Dame de Paris: The failed Notre Dame de Paris attack was an unsuccessful terrorist attack that took place in September 2016 on the outskirts of the Notre Dame Cathedral in Paris, using a car bomb by a commando of female jihadists.

A.5.1   Salience

We first consider the impact of the mentioned terrorist attack on the salience of immigration news articles. To measure the impact of the attacks on the salience of immigration news articles we re-estimate model 1 where the variable of interest are set of dummies signifying the occurrence of one of the terrorist attacks mentioned above in a given week (week1) or in the previous week (week2). We kept the the same control variables and fixed effects as in the baseline equation 5. The result of the regression can be seen in regression table 8. According to the salience model estimated, only the failed attack on churches in Villejuif on April 19 and the he attack on a Parisian police station in January 2016 led to an increase in the percentage of news article devoted to immigration in the week of the attacks. The attack on the Thalys train on August 21,

2015 led to an increase in the percentage of news article devoted to immigration in the next week after the attack.

A.5.2 Tone

Regarding the tone of the news articles about immigration following the terrorist attacks, only the failed attack on churches in Villejuif on April 19, the attack on the Thalys train on August 21, 2015 and the attack of July 26, 2016 on the church of Saint-Étienne-du-Rouvray that resulted in a deterioration of the tone that is adopted to discuss immigration in the week of the attacks. The December 20, 2014 attack on a police station in Joué-lès-Tours, the failed attack on churches in Villejuif on April 19, the attack of June 26, 2015 in Saint-Quentin-Fallavier, the attack on the Thalys train on August 21, 2015 and the attack of July 26, 2016 on the church of Saint-Étienne-du-Rouvray all resulted in a deterioration of the tone that is adopted to discuss immigration in the next week after the attacks.

Table 7: All other minor terrorist attacks - Salience

	Dependent variable:				
	count.articles				
	Immigration	Muslims	Security	Economy	Humanitarian
	(1)	(2)	(3)	(4)	(5)
Joué_lès_Tours_Week1	−0.64***	−0.38*	−0.55***	−0.13	−0.24
	(0.09)	(0.21)	(0.13)	(0.15)	(0.24)
Joué_lès_Tours_Week2	−0.67***	−0.42	−0.26	−0.17	−0.05
	(0.11)	(0.57)	(0.17)	(0.16)	(0.26)
Nice_2015_Week1	−0.98***	0.06	−0.37***	−0.18	−0.21
	(0.09)	(0.14)	(0.11)	(0.11)	(0.21)
Nice_2015_Week2	−0.61***	−0.09	−0.25***	0.07	−0.15
	(0.07)	(0.13)	(0.08)	(0.10)	(0.18)
Villejuif_Week1	1.15***	0.28**	0.84***	0.35***	0.58***
	(0.05)	(0.14)	(0.07)	(0.09)	(0.09)
Villejuif_Week2	0.02	0.003	0.59***	−0.12	−0.04
	(0.07)	(0.16)	(0.09)	(0.11)	(0.14)
Saint_Quentin_Fallavier_Week1	−0.25***	0.01	−0.42***	0.89***	−0.58***
	(0.07)	(0.15)	(0.09)	(0.09)	(0.14)
Saint_Quentin_Fallavier_Week2	−1.26***	−0.32	−0.56***	−0.46***	−1.26***
	(0.08)	(0.21)	(0.09)	(0.11)	(0.18)
Thalys_Week1	−0.23***	−0.25	0.01	−0.01	−0.53***
	(0.05)	(0.16)	(0.06)	(0.09)	(0.08)
Thalys_Week2	0.61***	−0.29	0.45***	−0.20**	0.23***
	(0.05)	(0.18)	(0.06)	(0.09)	(0.07)
Paris_Janv16_Week1	0.11**	−0.20*	0.17***	0.16**	−0.12
	(0.05)	(0.12)	(0.06)	(0.08)	(0.08)
Paris_Janv16_Week2	0.02	−0.06	0.27***	0.07	−0.02
	(0.05)	(0.12)	(0.07)	(0.09)	(0.08)
Magnanville_Week1	−0.34***	−0.001	−0.19**	−0.24***	−0.30**
	(0.06)	(0.13)	(0.08)	(0.09)	(0.14)
Magnanville_Week2	0.33***	−0.25	−0.06	0.32***	0.12
	(0.05)	(0.19)	(0.08)	(0.06)	(0.11)
St_Étienne_Rouvray_Week1	−0.91***	0.09	−0.05	−0.14	−0.95***
	(0.06)	(0.10)	(0.06)	(0.13)	(0.12)
St_Étienne_Rouvray_Week2	−1.04***	−0.02	−0.34***	−0.29**	−0.98***
	(0.08)	(0.16)	(0.09)	(0.14)	(0.14)
Notre_Dame_Week1	−0.64***	0.10	−0.25***	−0.25***	−0.88***
	(0.05)	(0.12)	(0.07)	(0.09)	(0.08)
Notre_Dame_Week2	−0.66***	−0.06	−0.40***	−0.17**	−0.86***
	(0.05)	(0.13)	(0.08)	(0.07)	(0.10)
Naufrage_day	−0.32***	−0.19***	−0.15***	−0.17***	−0.39***
	(0.02)	(0.07)	(0.03)	(0.04)	(0.05)
Constant	2.62***	1.14**	1.31***	1.60***	1.52***
	(0.13)	(0.47)	(0.18)	(0.13)	(0.21)
Observations	48,111	3,543	12,799	8,074	9,929
R²	0.74	0.69	0.75	0.68	0.58
Adjusted R²	0.74	0.69	0.75	0.68	0.57

Note: *p<0.1; **p<0.05; ***p<0.01
Quarter FE: YES
Journal FE: YES

Table 8: All other minor terrorist attacks - Tone

	Dependent variable:				
	media_tone				
	Immigration	Muslims	Security	Economy	Humanitarian
	(1)	(2)	(3)	(4)	(5)
Joué_lès_Tours_Week1	0.005***	0.004	0.01***	0.01***	−0.01
	(0.001)	(0.01)	(0.003)	(0.003)	(0.005)
Joué_lès_Tours_Week2	−0.01***	0.003	−0.01***	−0.01***	0.01
	(0.001)	(0.01)	(0.002)	(0.002)	(0.004)
Nice_2015_Week1	0.004***	0.01***	0.01***	0.004	0.003
	(0.001)	(0.004)	(0.002)	(0.002)	(0.004)
Nice_2015_Week2	−0.0002	−0.001	0.002	0.004**	0.003
	(0.001)	(0.003)	(0.002)	(0.002)	(0.004)
Villejuif_Week1	−0.01***	−0.001	−0.001	−0.01***	−0.01***
	(0.001)	(0.004)	(0.001)	(0.002)	(0.002)
Villejuif_Week2	−0.01***	−0.01*	0.0001	−0.01***	−0.01**
	(0.001)	(0.004)	(0.002)	(0.002)	(0.003)
Saint_Quentin_Fallavier_Week1	0.004***	−0.001	0.002	0.01***	0.01**
	(0.001)	(0.004)	(0.002)	(0.002)	(0.003)
Saint_Quentin_Fallavier_Week2	−0.003***	0.003	−0.004**	−0.004*	−0.001
	(0.001)	(0.01)	(0.002)	(0.002)	(0.004)
Thalys_Week1	−0.01***	−0.0003	−0.01***	−0.01***	−0.02***
	(0.001)	(0.004)	(0.001)	(0.002)	(0.002)
Thalys_Week2	−0.01***	−0.01	−0.01***	−0.01***	−0.01***
	(0.0005)	(0.005)	(0.001)	(0.002)	(0.001)
Paris_Janv16_Week1	−0.0005	0.002	−0.001	0.003	−0.01***
	(0.001)	(0.003)	(0.001)	(0.002)	(0.002)
Paris_Janv16_Week2	0.003***	0.004	−0.003*	−0.001	−0.001
	(0.001)	(0.003)	(0.001)	(0.002)	(0.002)
Magnanville_Week1	−0.0000	−0.02***	−0.01***	−0.004**	−0.01***
	(0.001)	(0.003)	(0.002)	(0.002)	(0.003)
Magnanville_Week2	0.001***	0.0001	0.003*	−0.01***	0.002
	(0.001)	(0.005)	(0.002)	(0.001)	(0.002)
St_Étienne_Rouvray_Week1	−0.02***	−0.02***	−0.02***	−0.01***	−0.03***
	(0.001)	(0.002)	(0.001)	(0.003)	(0.002)
St_Étienne_Rouvray_Week2	−0.01***	−0.0002	−0.01***	−0.001	−0.01***
	(0.001)	(0.004)	(0.002)	(0.003)	(0.003)
Notre_Dame_Week1	−0.004***	0.004	0.002	−0.003*	−0.001
	(0.001)	(0.003)	(0.001)	(0.002)	(0.002)
Notre_Dame_Week2	−0.001	0.01***	−0.002	−0.002	−0.002
	(0.001)	(0.003)	(0.002)	(0.002)	(0.002)
Naufrage_day	−0.003***	0.003	−0.001	−0.003***	−0.01***
	(0.0003)	(0.002)	(0.001)	(0.001)	(0.001)
Constant	0.04***	0.03**	0.02***	0.03***	0.03***
	(0.001)	(0.01)	(0.004)	(0.003)	(0.004)
Observations	48,418	3,567	12,901	8,121	9,968
R²	0.46	0.15	0.22	0.31	0.43
Adjusted R²	0.46	0.14	0.22	0.31	0.43

Note: *p<0.1; **p<0.05; ***p<0.01
Quarter FE: YES
Journal FE: YES

Appendix B   The dictionary

B.1   positive words

"*aboutir, abri, acceptable, acceptation, accepter, accessibilité, acclame, accompagnement, accomplie, accord, accorder, accueil, accueille, accueillir, accès, accélérer, acquitter, action, adaptation, adapter, adaptée, admirer, adoration, adoucir, aide, aider, aimer, aimon, aisance, aiser, ajustement, aliment, alimentaire, allier, allié, allocation, allocation familial, allouer, alternatif, amadouer, ambiance, ambitieux, ambition, ambitionn, ami, amical, amitier, amour, amoureux, amélioration, améliorer, aménagement, ange, angélique, apaisante, aplanir, applaudi, applaudissement, apport, apprendr, apprentissage, approbation, approuver, asile, assainissement, assidûment, association, assouplir, assouplissement, assurance, assurer, atout, attractivité, authentique, avantage, beau, bel, belle, bien, bienveillance, bienvenu, bise, blague, boisson, bon, bonheur, boulot, bravo, brille, briller, business, bénéficie, bénéficier, bénévolat, bénévole, café, calme, calmer, camarade, capable, carrière, certitude, champagne, chance, chanter, chantier, ciner, citoyenneter, civilisation, clément, cohabitation, cohérent, cohésion, cohésion social, collaboration, collect, collecte, collecter, collectif, commerce, commercial, communauté, communauté vie, communion, compassion, comprend, compréhensible, compétence, compétitivité, concret, concrétisent, confectionner, confiance, confiant, conforme, confort, confrère, conscience, conseil, conseiller, consommation, consommer, constructif, construit, consulter, contribuer, contribution, convaincre, convergence, converger, conviction, convivial, convié, coopération, coordinateur, coordination, coriace, cotisation, cotiser, coté, courageux, couverture, croire, croissance, créateur, créatif, création, créativité, crédible, créer, culte, culture, culturel, cul-*

turelle, célèbre, célébrer, dansante, danse, dialogue, dignité, diplomatique, disponible, distribuer, distribution, diversifier, don, donner, donneur, douceur, droit, durable, dynamisme, débat, déboucher, décemment, décision, décisionnelle, décor, décoration, découverte, défendre, défense, défilé, déjeuner, déjouer, désamorcer, désir, détendue, développé, dîne, efficace, efficacité, efficience, effort, embauche, embaucher, embrasse, emmaü, empathie, emploi, emploie, employer, encadrement, encourageant, encourager, engagement, engagé, entente, enthousiaste, entraid, entreprendr, entrepreneur, espérance, espérer, espéron, essentielle, exceptionnel, excuser, exonérer, fabriquer, facile, facilement, faciliter, familial, famille, fasciner, faveur, favorable, favori, favoriser, festif, festival, fiable, fidèle, fidélité, fier, financement, financer, financier, financée, fleurissement, flexibilité, fondation, force, formation, formidable, fort, fortune, france terre immigration, franchement, fraternel, fraternelle, fraternité, fulgurant, fête, gagner, gentiment, grand littérature française, gratuit, gratuitement, guide, généreux, générosité, gérer, gîte, habile, harmonie, heureux, hommage, honneur, honnêteter, honorer, hospitalité, humain, humaine, humainement, humanisme, humaniste, humanitaire, humanité, humour, huppé, héberge, hébergement, héberger, héritage, héros, idéal, imaginer, impressionner, inciter, inclusif, incontestable, incontester, indemniser, industrialisation, informer, infrastructure, innocenté, innovation, innover, insertion, inspiration, inspirer, installation, installer, installée, insérer, intellectuel, intelligence, intelligent, intime, intégration, intégrer, intégrité, intégré, intéressant, intéresse, intérêt, inventer, investir, investissement, investissent, invité, jeu, jeune, joie, joli, jouer, jouet, jouon, joyeux, laissez-passer, laurier, laïcité, libert, liberté, libre, libéralisation, libéraliser, libére, libérer, liquidité, loger, logique, loisir, lucide, lucidité, lucratif, lumineuse, lumière, légal, légalement, légerter, légitimité, maitriser, malin, martyr, maîtriser, meilleur, merci, mieux, miséricorde, mixité, mo-

biliser, mobilité, moderne, modèle, modérer, moins difficile, monument, motiver, multiculturalisme, muscler, médicament, mélange, mérite, métier, nourrir, nourriture, nouveau, nouveauté, noël, nutrition, négociation, obtenir, oeuvre, offert, offerte, offre, offrir, offron, ong, opportunité, optimisme, organisation, organiser, orientation, ouvert, ouverte, ouverture, ouvrir, ovationner, pacifier, paix, parcours, pardon, pardonner, parfaire, parrainage, partager, partenair, partenariat, participation, participer, participeron, passionner, patriote, penser, perfectionnement, plaider, plaisanterie, plaisir, pluralité, poliment, popularité, positif, possibilité, possible, poèm, prier, primer, prioritaire, privilégier, prière, productiviste, professionnalisation, professionnaliser, professionnel, profit, profite, profiter, progresse, projet, promenade, promotion, promouvoir, proposé, propre, prospère, prospérité, protecteur, protection, protéger, prouesse, précaution, précieuse, préparation, présent, préservation, préserver, prévention, puissance, pédagogie, pérenne, qualifié, raisonnable, raisonnablement, rapprocher, rassembl, rassembler, rassurant, rassure, ratifier, ravi, raviver, recrutement, recruter, recréer, redonner, refonder, refuge, relancer, relaxer, relie, reloger, remercier, remobilisation, renaissance, renforcer, renfort, renommé, renouer, renouveler, repas, respecter, respectueux, responsable, ressource, restaurer, rever, riche, richess, rigueur, rir, réception, réchauffer, récompenser, réconciliation, réconcilier, réconfort, régal, réglée, régulariser, réhabilitation, réinsertion, réinsérer, réintégration, réintégrer, réjouissante, rémunérer, rénovation, rénover, réorientation, réouverture, république, résilience, résolution, résoudr, résoudre, résurrection, rétablissemer, rétribution, réussir, rêve, sagement, salair, saluer, sang froid, santé, satisfaction, sauver, sauveront, sauvetage, sauveteur, scolarisation, scolariser, secourir, secours, sensibilisation, sensibiliser, sensible, service, servir, sincère, social, socle, soin, solidaire, solidarité, sollicitude, solution, solvabilité, soucier, souhaiter, soulagée, soupe, sourire, soutenir, sou-

*tien, sportif, spécialiste, stabilisation, stabilité, stable, stratégique, struc-
turée, subvention, succès, suffire, supporter, supérieur, surmonter, survie,
survivant, survivre, sympathique, sécurisation, sécuriser, sécurité, sérieux,
sérénité, talent, tendresse, terre mélange, tolérance, transparence, travail,
travaille, travailler, travailleur, trophée, unanime, union, unité, universal-
isme, universelle, utile, utopie, valeur, validité, vertueux, victoir, victoire,
victorieux, vie, visible, vision, vivre, vivre - ensembl, volontaire, volontier,
volonté, vouloir, vrai, vraie, véritable, vérité, vêtement, échang, échanger,
échapper, échapper enfermement, éclairer, éclairé, écolo, écologie, écologique,
économique, édification, éducateur, éducation, égalité, élite, émanciper, émergent,
émotion, émouvoir, énergie, énergétique, équilibre, équitable, étincellant,
évolution*

B.2   Negative words

*"oligarchie, catastrophe, piéger, surabondance, pesant, bloquer, contaminer,
anxiété, tyrannie, confisquer, tension, interdir, tenté, menacer, intimida-
tion, regrette, perdon, endoctriner, truand, pann, brutalité, narcissique, dis-
simulé, expulse, crise identitaire, tué, provoquer, renseignement, détresse,
obligation, débarquer, méchanceté, obstacl, abattr, fixer refugié, arme, peur,
discréditer, impuisser, hospitalier, engorger, impréparation, plaindre, ex-
iguë, détruire, dévaster, empêcher, recours, illégal, sexisme, incident, rechercher,
judiciaire, poison, envahi, barrer, hurlement, écrouer, déploré, prétendre,
atrociter, interdiction, renvoyer, djihadiste, sabotage, être - dire, crimi-
nalité, déloyal, pénitentiaire, empêche, exagéron, fauteur, suppression, at-
tentat, tragédie, contagion, fanatique, démantèlement, destruction, dominer,
insuffisante, encombrer, critique, zone gris, escalade, accuser, chantage,
squatter, inhumain, criminaliser, peiner, bavure, djihad, islamophob, en-*

cellulement, soldat, contre, dommage, sombrer, réduit, accusation, daech, déficit, sécurité, incompétent, craquent, "anti-étranger", priver, voler, isoler, exécuter, gesticulation, déclin, massive, bête, lacunaire, risque, criminel, fatigue, dégénérer, cantonné, noie, naufrage, médical, sale, fermeture, submerger, embarcation, battre, déshumanisation, démission, insulter, arsenal, rétention, fragmentation, incertitude, hystérie, faiblesse, accablement, loin consensuel, bombe, désinvolte, mourir, tribunal, fumeux, ignoble, laxisme, violence, émotion, piéger, éliminé, ras-le-bol, détourné, inadapté, abandonnée, accuse, réactionnaire, djihadist, ne passer pas, nuancer, effroyable, souffrir, saturation, sinistrose, identitaire, chaotique, violation, hypothermie, fusil-mitrailleur, islamisme, taper, enfermé, déborder, pointer, djihadisme, exploiter, gendarmerie, choquer, contrevérité, parquet, faiblard, découper, grossièrement, illusion, tirer, renier, défaut, malade, démanteler, meurtrier, armer, virulent, frisson, perdr, instrumentaliser, omerta, bagarre, invasion, allergie, pique, injurieux, désaccord, fusil, clivage, réaction, perdraient, illettrisme, assourdissant, immonde, artificiellement, éxcè, erosion, mort, assaut, disparition, evacuer, anti-migrant, violent, serré, xénophobie, monstrueux, exorbiter, couteau, malheureux, déplorer, horreur, licenciement, resurgir, bactérie, tsunami, risquent, éloignement, ignorer, bombarder, éclaté, difficulté, addiction, machisme, néocolonial, dégradante, terreur, ébranler, explosion, cagoulé, opposer, enfer, mauvais, inadaptation, gangrener, braquage, fragmenter, ivre, diabèt, squat, crainte, débouter, criminologie, chavirer, dette, foire empoigne, turbulence, incompatible, colère, fou, soi-diser, "anti-immigré", interminable, vulnérabilité, défaillant, division, gaspillage, génocid, banditisme, martial, laxiste, condamnaient, cibl, réticence, faim, danger, déclassemer, hospitalisation, hostil, abuser, explosif, esclavage, inconnu, charge, criminël, outrage, projectile, populiste, furieux, rechigner, interpeller, insensible, combat, étriquer, illégalement, égoisme, éliminer, caniveau,

raciste, fâcher, dérobé, évacuation, intransigeant, précarité, fragile, espionnage, confrontation, dégrader, condamné, incertain, vertige, pollution, escroquerie, incapacité, amende, tair, protester, critiquer, polémique, amalgame, abattre, détenu, guerre, illettrer, battu, intrigu, jihad, assassinat, gâcher, souffre, embarcation fortun, bataille, désolation, effondrement, entasser, répugnant, endeuiller, tourmente, enfourcher, cassé, décès, hurler, strict, dénoncer, paranoïa, inégalité, trouble, contradiction, interdire, jamais, gâchée, risquer, décadence, regretter, absurde, impopularité, incontrôlable, insulte, contester, sinistre, gravement, traite, maudir, empirer, communautarisme, contrôle, guérilla, sécuritaire, déscolariser, plonger, piège, désemparer, autoritarisme, malédiction, mortem, trafiquant, inutile, échapper, ment, scepticisme, eurosceptique, foutre, soumission, incohérent, ombre, difficile, insalubrité, impuissance, gaspiller, déchet, offenser, cellule, dispersion, fatal, hôpital, "dae", fièvre, contrainte, ingérable, puni, accusent, tuer, crouler, épuisement, contraint, grever, autarcie, insenser, démunir, cogner, traîner, incomplet, malhonnêteté, contentieux, inquiet, diviser, qaïda, fichage, fâche, pessimisme, jihadiste, juge, disparaitre, paresseux, torrentiel, inquisiteur, tomber, dangérosité, prisonnier, fracture, casseur, ravager, nationaliste, combattant, ghettoïsation, dénonciation, débordement, farce, violeur, dictature, pression, dénigrer, purger, impopulaire, dangereux, déracinement, sauter, assassin, déchoit, retirer, étouffer, handicap, cracher, échec, destructeur, couper, impasse, affaiblir, ch, étrangler, exploité, détonateur, loin, instabilité, retard, rivalité, châtie, malheur, affaiblissement, indifférer, scarifiée, incarcérer, spolie, clandestin, injustice, interpellation, stigmatiser, dégat, maladie, perte, instable, pourrir, médiéval, terrifier, condamnation, détérioration, enfoncer, perquisition, masochisme, problèm, outrance, négatif, désintégration, adultère, réticent, piégé, poussiéreux, traumatique, désastre, piller, perturber, faille, lacrymogène, abandonneron, negatif, indignation,

redouter, tort, prison, grincer, confronter, affaiblie, effrayer, déloger, dégradé, arrêté, exclusion, détention, lutter, renoncer, dépit, discrédité, déchaîner, espion, meurtre, provocation, faute, mitrailler, tueur, menace, forteresse europe, rejeter, funeste, épouvanté, blessé, complice, suspicion, tromper, vainement, cadavre, anti-loi, défaite, barbelé, impossible, déstabiliser, clôture, surpeupler, vulnérable, hooliganisme, erreur, corrompue, préjugé, besoin, mafia, frileux, paralyser, déconfite, rebelle, violer, indigne, solitaire, idéologie, ironie, craint, pilleur, drogue, drame, rixe, inexistante, déception, harcèlement, fermeter, aggraver, sceptique, dépression, crever, prostitution, méprise, choc, durcir, gendarme, extrémisme, coup, précipitation, vague, limite, trauma-tiser, insécurité, dégringoler, chaos, reconduit, secouer, sentence, abus, ex-pulsé, overdose, colon, pénible, pnr, coupable, charlatan, soupçon, seuil tolérance, infamie, inférieur, péril, persécution, indifférence, attroupement, misère, tendre, excessif, dérapage, provocateur, perdu, disperser, raté, excrément, antiterroriste, vague réfugié, frapper, complication, compliquer, radical, noy-ade, sans-papiers, trahison, agresser, terrorisée, cavale, accrochage, dis-crimination, venger, rien, urgence, sanctionner, sombre, ruine, trahi, écrase, refuser, écoeurer, hospitaliser, pleurer, insuffiser, séparation, rabatteur, dae, craindre, dérive, terrible, vulgaire, anti-immigration, kalachnikov, arresta-tion, grognement, décapiter, tempête, consterner, burqa, fugue, archaïque, incarcérée, malmené, affrontement, massacre, fuite, décédé, casser, rude, bancale, fiasco, égoïste, tortueux, sanglant, détruite, diabétique, embûche, abandonner, subir, alerte, panique, brutal, rétracter, briser, balle, bêtise, in-quiétante, adversair, racaille, négligence, malfaiteur, enterrement, douteux, exaspérer, pétard, asphyxiant, kidnapper, arroger, merde, inaction, révolte, incohérence, enrage, hooligan, infériorisation, alarme, échouer, commis-sariat, claqu, illégau, désaveu, revendiquer, imposer, jungle, assistanat, chômage, ghetto, contredire, insalubre, poignardé, angoisse, suspendr, crise,

pauvreter, fermer, inculper, déprimé, attaquant, dévaluer, forcé, dissoudr, rejet, controverser, expulsion, intempestif, inondation, militaire, disparaître, enfermer, arm, déplorable, ennemi, évacuer, frappé, abasourdi, gangrène, hostile, dangereuse, blessure, défausser, faux, déguerpir, exploser, attrist, fondamentalisme, problème, empoisonner, rejette, grave, extrémiste, rupture, caisse vide, accident, hostilité, triste, terrorisme, falsifier, peine, exploitation, resigner, écraser, milice, crevé, corruption, euroscepticisme, déni, terroriste, mécontentement, élitiste, séparer, éloigner, volte-face, arracher, miséreux, salafisme, déserter, dévastée, kidnapping, afflux migratoire, krach, saturer, détester, persécuter, déséquilibré, complexité, terrifiante, faible, salafiste, déchéance, condamner, préoccupant, arrêter, dissimuler, afflux, sauvage, séquestration, incontrôlé, rébellion, convoquer, absence, désole, trahie, porcherie, délinquance, "ex-braqueur", ignorance, lobotomiser, tabasser, rétorsion, épuiser, police, secte, timide, hain, crucifixion, scandale, diable, affronter, antisémite, malsain, malheureusement, désastreuse, fuité, enquêteur, naïf, désertification, attaquer, abusivement, envahisseur, problématique, orphelin, incendie, déformer, déconstruir, intense émotion, délinquant, coupure, hésitation, hurlante, révolution, défavorbal, oblige, "court-circuiter", refus, attaque, agressive, bassiner, jettent, tragique, intense, sorcier, inacceptable, contresens, commando, régime autorisation, excès, brûlante, juger, soupçonner, emeute, nazi, modicité, combattre, manifesté, ingratitude, extrême, fardeau, aggravent, stigmatisation, analphabétisme, austérité, mal, exclure, absent, abîmer, mitrailleur, daesh, représaille, primaire, non déclarer, fragilité, extradé, protagonist, errement, exil, expulser, traqu, confiance, surendettement, gêne, offensive, pauvre, ne pas donner bon image, racisme, jalouser, éclater, antidépresseur, chute, barbarie, défendre, effacer, surveillance, caprice, vieillissement, barrage, inquiéter, attentat - suicide, loubard, blesser, capricieux, clashe, feu, xénophobe, embrouille, insoutenable, évacué, malaise, isole-

ment, haine, inquiétude, trafic, corrompre, enquête, barber, vol, verrou, noyer, irrégulier, radicalisation, décapitation, obliger, durcissement, suicide, islamiste, mortel, débarqu, discriminer, manifester, inculpé, boue, brûler, impéritie, effraye, conflit, épine, vandalisme, kamikaze, néonazisme, amère, démon, putsch, rançonner, opposition, fuir, sévère, pire, camp, façade, décourager, refermer, manifestation, conservateur, gâchis, ternir, victime, absurdité, procureur, quitter, frontière, "anti-système", peser, blocage, catapulter, dégradation, précaire, carcéral, anéanti, trahir, grille, raid, inconscience, suspect, doute, sidérer, agression, nier, rival, rompue, armée, fascisme, pléthorique, maléfique, bondir, carnage, honte, dissolution, grenade, inapte, désordre, passeur, émeute, saboter, démagogie, cri, aggressiv, crime, fusillade, sacrifier, anti-migrant, policier