

# Terrorism and Media Reportings on Immigration : Evidence from France

BEcAUSE-Terror

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Contact : Daniel Mirza

COORDINATEUR : Daniel Mirza

PARTENAIRES : Université de Tours, Laboratoire d'Economie D'Orléans et Paris School of Economics

**Abstract :** Using Natural Language Processing and Econometric techniques this paper co-written by D. Mirza, M. Picault, M. Sacko, and A. Tritah document a robust statistical link between terrorist attacks and media articles when writing about migration related subjects, especially those connected to Muslims. In particular, media appear to talk more about migrants and muslims up to 8 weeks after the attacks with a more negative general tone for at least three weeks after the attacks.

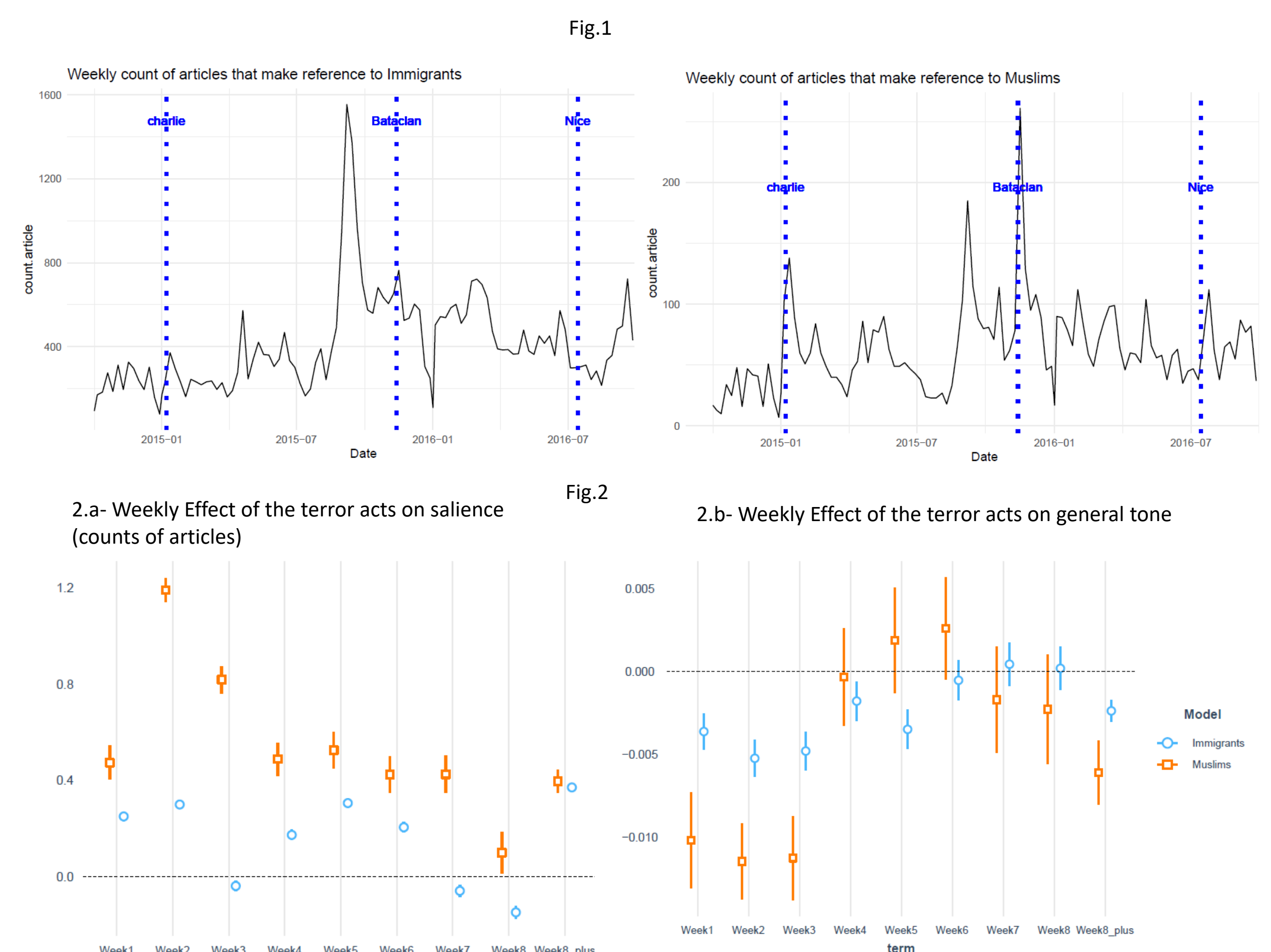
## CONTEXT and AIM

This research asks whether terrorism changes the salience and tone of reporting of the media on migration related subjects? Do we observe a convergence in the salience and tone of reporting across national and local media news? and across different political orientations of media? How much does media behavior last after a terrorist significant act? The responses to these questions provide some implications about people attitudes (discrimination against migrants and the way they might vote).

## METHODOLOGY AND RESULTS

We extract all *newspapers' articles at the media level* listed online in the Europress and Factiva databases, (Le Monde, Le Figaro, Libération, etc...), where the words "Immigré(s), Immigration, "migrant(s)" are being observed from 2014 to 2016. We use Natural Language Processing (NLP) methods to transform all articles sentences into sequences of word nouns or group of words. We could then build two measures: A salience of migration measure (number of articles where the words linked to migrants are being observed) and a general tone indicator for each article (a mesure of the difference between the share of words indicating a positive tone and those indicating a negative tone, using a dictionary based approach). We also build the same measures when the words related to muslims or refugees were being observed.

We then look at how salience and tone change in the media after the three main terrorist attacks in France (Charlie Hebdo's Jan.2015, Bataclan, Nov. 2015 and Nice, Jul. 2016). Figure 1 shows the weekly counts of articles (salience) in all our media dataset where the words linked to migration appears. The left graph does not seem to show a clear jump in the number of related articles after each of the terrorist attacks. The relation to terrorism is much clearer when turning to those articles citing words related to muslims (graph right hand side). An important increase in the variable is then observed providing a break



Reading: *Week-X* after the occurrence of an attack, relatively to the period before an attack: a) the migration salience increases by an average of  $Exp(Y\text{-axis coef})$  and b) General tone decreases by  $Y\text{-axis units}$  (mean value of general tone indicator  $=+0.013$ . with standard dev= 0.01)

in tendencies and higher plateaus, rather clearly after Charlie and Bataclan's events.

We then apply different econometric techniques to look at the impact of those three terror acts, while controlling for newspapers characteristics, and other events in the period (refugee crises). We find that migration salience in the media increases and lasts for at least 8 weeks after one of the three terrorist attacks (Fig.2.a). Muslim related words are much more pronounced in those articles (this corresponds to an average increase by around 65% over the 8 weeks). Also, the media general tone towards migrant related subjects decreases for over three weeks (Fig. 2.b). The negative effect on general tone indicator related to Muslims is much higher (multiplied by 3). After a typical attack, we estimate the decrease to reach 0.01 units of the tone indicator (a value equivalent to one standard deviation of the general tone from its mean value).

We also document that those effects appear to be rather homogeneous and statistically robust for media from different political tendencies.

Our results have implications on policies: they could affect voting outcomes few weeks after a significant terrorist attack, which is what we are seeking to confirm in future research.



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