

Attitudes towards no-European Immigrants in EU: The Role of Legacy Media and New Media

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Abstract

Many studies in different scientific fields offer controversial results on the media's role to influence attitudes towards immigration. In the present paper, the attitude that European public opinion has towards no-European immigration is analysed through data from Eurobarometer in the 3 waves starting in 2017 until the latest updated in 2019 with the aim to estimate the relationship with new and legacy media use. Specifying repeated measures multilevel models, we find that the use of legacy media (TV, press, and radio) and new media (website and online social networks) affects the relationship between citizens' opinion in EU and attitudes towards no-European immigrants, when the European migration crisis reaches high levels and the migration issue becomes heated for public opinion. High exposure to news communication produces different relationships looking at legacy and new media. If radio, TV, newspapers are used frequently to obtain political information, the attitudes towards external migration are hostile but also in the case of new media. Legacy media manage to soften the negative attitude towards no-European immigrants, at least for low levels of immigration. On the contrary, new media are able to bring European citizens into line with even negative or hostile attitudes.

Keywords: *No-European immigrants; legacy media; new media; repeated measures multilevel models*

Introduction

In contemporary society, legacy media (LM) and new media (NM) have many functions: entertainment, information and education with immediate effects on perceptions of social reality (Eisend and Möller, 2007). The representation of risks and threats³ develops a higher sense of insecurity within society (Beck, 1992). This is particularly relevant to the public discussion of migration and immigrants, because media exposure influences public perceptions of migration (Appave and Laczko, 2011) and its beliefs about the impact of migration on society in turn influence policy preferences (Hericourt and Spielvogel, 2012), “creating a cycle of engagement: media - public - politics” (Kosho, 2016: 90).

In this paper we focus on the relationship between media exposure and the EU citizens' attitudes towards immigrants, employing data from Eurobarometer in the 3 waves starting in 2017 until the latest updated in 2019 (the wave of 2020 has not been analysed because too much altered, due to COVID-19 pandemic). Repeated measures multilevel models are specified in order to measure the relationship of LM and NM with attitudes towards

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³ The comparison of cultural threats with economic threats, referred to economic group conflict (Esses et al., 1998), suggest that perceived cultural threats predict anti-immigrant attitudes more than perceived economic threats do (Hainmueller and Hopkins, 2014).



immigration. The main findings point out the relevant relationship between media and EU citizens' attitudes towards no-European immigrants but with important differences between LM and NM.

Media effects on social systems

As far as migration representation, media focus only on certain events, and then places them within a field of meaning: they “represent, or describe in a particular way, people, places, events, ideas, and institutions that make up our world” (Gascher et al., 2007: 558). As a consequence, there are two different levels: the media address the citizens' attention to specific problems, both setting an agenda of priority issues (Gupta and Sinha, 2010; Scheufele and Tewksbury, 2007) and suggesting the issues to be focused on. The media appear to define and direct the perception that citizens have of reality (Scheufele, 2000) both by a priming effect concerning “changes in the standards that people use to make political evaluations” (Iyengar and Kinder, 1987: 63) and a framing effect dealing with capacity of media to present the issues (Price and Tewksbury, 1997)⁴.

The literature has focused also on how media shape attitudes related to immigrants (Boomgaarden and Vliegenthart, 2007, 2009; Jacobs et al. 2017), often not neutral but rather biased (Besley and Prat, 2006) towards a particular ideology (Gentzkow and Shapiro, 2010). Many studies comparing LM or NM often in a synchronic perspective reveal a gloomy scenario, foregrounding public worries about the presence of immigrants. Indeed, they highlight a complex relationship between media and public opinion.

For the media, the migration phenomenon has an intrinsic appeal, *i.e.* at time of the referendum on Brexit, as underlined by Moore and Ramsayi (2017), the issue of immigration and the debate that it generated made this issue second only to that of the economy.

As far as immigration reporting, the information provided by the press has greater power than that of television: if greater attention and interest is required, the effect is more permanent and coherent with previous attitudes (Graber, 1988, 2001). Newspaper readers are better informed than TV news audiences (Moy et al., 2005) but they are not immune to anti-immigrant attitudes. However, TV power is still an important factor for structuring public opinion: the dramatic content of images proposed by TV news has “a greater capacity to provoke a more “vivid” reading of the facts and centred on emotions such as sympathy, envy, empathy, antipathy, and, even disgust” (Lai et al., 2016: 67), although their persistence over time is less long-lasting (Graber, 2001). In order to evaluate the effects, we should never forget the increasingly fragmented media market (Bennett and Iyengar, 2008) and the emergence of a post-broadcast era (Prior, 2007).

Alongside studies that use content analysis to assess transformations in public opinion, other ones analyse the exposure to specific media and the presence of particular attitudes. Despite the fact that scientific research shows differences in the media systems of some countries in terms of quality and quantity of information and internal pluralism (Hallin and Mancini, 2012;

⁴ As regards this last aspect, immigration is framed in the context of social problems (Scheufele, 1999) rather than stressing the positive aspects of immigration for a receiving country (Igartua and Cheng, 2009) by reproducing a negative, stereotypical image of immigrants (Caviedes, 2015). Framing of threats leads both to generally negative attitudes towards the depicted group (Esses et al., 1998; Igartua and Cheng, 2009), and the dehumanization of social groups (Esses et al., 2017). At the same time, the media play a significant role in framing public policy and discourse about immigrants and refugees, because the way that issues are framed in the media influences the way the public evaluates the issues (Branton and Dunaway, 2008; Igartua et al., 2014).



Brüggemann et al., 2014), it is possible to highlight some regularities regarding the exposure to specific media and the development of particular attitudes.

With regard to TV consumption, many scholars point out the most frequent viewers tend to overestimate the number of migrants and the related threats (Herda, 2010; Jacobs et al., 2016; Igartua et al., 2014). Jacobs et al. argue that “frequently watching television is associated with higher fear of crime and perceived ethnic diversity, which is in turn associated with higher anti-immigrant attitudes” (2017: 16). Focalizing their attention on different multicultural countries, Beyer and Matthes (2015) find a significant relationship among countries regarding exposure to commercial broadcasting and negative attitudes towards illegal immigration. The same association is not found when the researchers analyse public service news broadcasting. According to these studies, television does not seem to positively support multiculturalism, even in the case of public entertainment programs, such as fictions. Analysing prime-time programmes on the six main national channels in Spain, Igartua et al. (2014) find that the same fictional broadcasts are characterised by a ‘stereotypical construction of immigrant-foreigners’ characters. Such effects also depend on the type of political system or regime. In fact, in democratic countries where there is a chance to enjoy well balanced television programs, there is also the possibility of lowering levels of xenophobia compared to the contexts where people have not been exposed to those programs (Hornuf et al., 2018).

Studies concerned the radio are carried out mainly in contexts where TV is owned only by few persons both for reasons related to the location of the territories and the economic constraints of some countries (e.g., African countries). These studies show radio is a very suitable medium to express opinions, especially on local government. In addition, radio contributes to the development of civic sense, both systemically and individually, especially when the radio stations system is decentralised (Helge, 1994). If, on the one hand, the radio can improve the perception of immigrants (Héricourt and Spielvogel, 2014), it could also produce an opposite effect when it is ideologically oriented. As Barreto et al. (2012) argue conservative radio audiences exhibit significantly more anti-immigrant and anti-Latino attitudes, compared with other media consumers.

In the case of exposure to newspapers, the findings are sometimes contradictory (Eberl et al., 2018). This particular medium does not always offer a negative image of immigrants. For example, Héricourt and Spielvogel (2014), analysing five rounds of the European Social Survey (2002-2010), find that exposure to this specific medium improves the citizens’ perception about immigrants. When citizens are frequently exposed to news regarding immigrants, they reduce both their negative out-group attitudes (Schemer, 2012) and opposite attitudes towards immigration (van Klingeren et al., 2015). Reading a newspaper can influence citizens’ attitudes in terms of ‘anger’ towards immigration (Johnson and Rodger, 2015) also in multicultural societies, especially when immigration becomes a social problem.

Focusing on the number of newspapers, Vergeer et al. (2000) highlight that readers exposed to more than one newspaper are less worried about the presence of ethnic minorities while, according with Arendt (2010), who always reads more than one journal develops more negative attitudes towards the migrants. In contrast, newspaper readers have greater ability to estimate the size of the migrant population (Herda, 2010) and, as a consequence, negative attitudes towards migrants should be restricted.

Regarding the use of the Internet, differences among countries have shown clashing results, which hang on individuals and national conditions (Groshek, 2009). Its effect depends on the political environment where it is used (Cho, 2014). Nevertheless, when its use enables people to “read books in languages other than their mother tongue, or simply shop online within the EU, this amounts to more positive attitudes towards intra-EU immigration” (Salamonska, 2016: 251). However, the Internet is not immune to racism. In fact, as Tornberg and Tornberg (2016) underline the internet forum seems to work as an ‘online amplifier’ reflecting and reinforcing broadcast media discourses with even stronger polarizing effects on public sphere. As expected, scientific debate on the Internet also involves online social networks, besides acting as a flyer for the mobilization of citizens (Bajomi-Lazar, 2013), it allows for the public to know, and possibly discuss, the political choices of the rulers. Chiefly tackled by politics in a European key, NM, more than LM, produce hate speeches when public discourses regard the immigration issue (Diamanti, 2016). From this perspective, over time, the immigration issue appears metabolized by the media system as well as by public opinion. The frequent exposure to news media or social media amplifies the perceived dread, consistent with the social amplification of the risk framework (Pidgeon et al., 2003; Mou and Lin, 2014). Many of the above-mentioned studies only analyse single medium at most to compare countries. Other studies, instead, are located in single country (Czymara and Dochow, 2018; Nora and Strömbäck, 2020), strongly featured *i.e.*, for the development of the digital platform, the relationship between public and commercial broadcasting, or the national journalistic culture.

In the present paper, the research goal is concerned to analyse at same time the LM and NM in order to evaluate their relationship with the EU citizens’ attitudes towards immigration. On the one hand, the LM have characterized the communication until the advent of the digital platform and on the other hand, the NM have changed the equilibrium of the media ecosystem. So, the use of LM or NM could likely have a different relationship with EU citizens’ attitudes towards immigration from outside EU. In the literature, different findings are discussed. As a consequence, it is advisable starting with null hypotheses (H_0) arranged as following:

- on the one hand, the use of LM is not linked to hostile attitudes towards immigration
- and, on the other hand, the use of NM is not linked to non-hostile attitudes towards immigration.

Materials: Data and variables

The last updated 3-waves Eurobarometer data⁵ are analysed focusing on the changes from 2017 until 2019 in EU citizens’ attitudes towards immigrants from no-European countries. While the measurements focus on the perceived threat, they capture the broader concept related to the attitudes towards the immigrant population or anti-immigrant attitudes. In the repeated measures multilevel models, the dependent variable is the *attitude towards immigration*

⁵ The data source is EUROSTAT - Eurobarometer 2017-2019.



for people from outside EU⁶. Individual-level predictors of attitudes towards immigrants include the following:

- *LM*, as an additive index, built aggregating TV, newspapers, and radio to keep up with the politics news, all measured as continuous variables;
- *NM*, as an additive index, built aggregating website and online social networks to keep up with the politics news, all measured as continuous variables, too;
- at aggregate level, *Number of refugees*⁷.

Since previous studies (Semyonov et al., 2008) have shown that older, less educated, unemployed, right-wing males, and those living in rural areas, report more negative attitudes towards immigrants, the present analysis includes some control variables such as political ideology (from 0=left to 10=right) under the assumption that those leaning to the right hold more hostile attitudes towards immigrants, and subjective perceptions of the economic situation⁸, which is “more relevant than objective economic indicators for predicting anti-immigrant sentiments” (Kunz et al., 2017: 407). Some other variables are included in the analysis: *attitude towards immigration involving people from other EU member States*, *issue of immigration*, and *number of immigrants* at country aggregate level. Finally, socio-demographic characteristics related to education, occupation, age, gender, degree of urbanization, and social status⁹ are used as control variables.

Methods: Repeated measures multilevel models for hierarchical data

Since the Eurobarometer is a series of repeated individual-level surveys, it has a cross-sectional design and as a consequence, the data analysis follows a repeated measures perspective.

A linear mixed variance component model (Goldstein, 2011) for repeated measures hierarchical data is specified to examine the changes over time (from 2017 until 2019) in EU citizens' attitudes towards immigrants (*Y*-dependent variable in the model) of 98,303 participants interviewed across 28-EU countries in three waves¹⁰. We examine variability in *Y*-variable likely due to differences in within-individual variables (1-level variables) and between-countries variables (2-level variables) over a 3-year period through multilevel models to investigate: what is the shape of *Y* over time? which within- and between-individual variables explain *Y*? how does *Y_t* vary according to the features of 28 EU countries?

In modelling changes in *Y* over time, within individual data (1-level), we examine relationships involving various time-varying covariates that could affect the attitudes towards immigration (*Y*) over time. In this multilevel framework, repeated measurements are taken at fixed

⁶ The questions read as follows: “Please tell me whether each of the following statements evokes a positive or negative attitude for you. *Immigration of people from outside Europe*” (in this section and forwards, the italic style is used to reproduce the text of the Eurobarometer questions). The variable is coded in the following way: 1 = Very positive, 2 = Fairly positive, 3 = fairly negative, and 4 = Very negative. To simplify interpretation, the mode order has been reversed and recoded as follows: 0 = fairly negative + very negative, 1 = fairly positive + very positive. The “don't know” answers have been excluded from the analysis.

⁷ In the amount, all of refugees are included according to the UNHCR source.

⁸ This is an index, obtained by applying a principal component analysis that aggregates evaluation of the following situations: national and European economy, personal job, and financial household. The factor scores obtained go from -2.301 (very bad situation) to 1.809 (very good situation).

⁹ The variable is coded in the following way: 0 = The working class of society, 1 = The lower middle class of society, 2 = The middle class of society, 3 = The upper middle class of society, and 4 = The higher class of society.

¹⁰ 33,193 participants in 2017 (Eurobarometer 88.3), 32,600 in 2018 (Eurobarometer 90.3), and 32,510 in 2019 (Eurobarometer 92.3).

occasions: all the individuals (1-level units) provided measurements at the same set of occasions over time and on countries (2-level units), once for each year from 2017 until 2019. Between countries (2-level), we investigate how various individual characteristics are related to changes over time in opinions and attitudes.

From a methodological point of view, a linear mixed model (Raudenbush and Bryk, 2002) is employed to investigate the random effects of covariates and heterogeneity across the units, both on the variables observed on units at 1-level nested in units at 2-level, and on changes of the observations chronologically ordered in temporal occasions (Skrondal and Rabe-Hesketh, 2007). Following a multilevel approach, firstly it is possible to examine an *unconditional means* model without predictors – *null* or *intercept-only* model (Singer and Willet, 2003). By these components, the intra-class correlation index (ICC) is estimated, as average correlation between variables observed on 1-level units belonging to the same 2-level unit. It is higher than the average correlation between variables observed on the same 1-level units nested in different 2-level units. The proportion of variability in outcomes is the value of ICC, as the expected correlation between two randomly chosen units belonging to the same group (Hox et al., 2018), defined at 1-level as:

and at 2-level as:

$$\rho = \sigma_{Level 1}^2 / \sigma_{Level 1}^2 + \sigma_{Level 2}^2 \quad (1)$$

$$\rho = \sigma_{Level 2}^2 / \sigma_{Level 1}^2 + \sigma_{Level 2}^2 \quad (2)$$

The multilevel models for repeated measures can be written as a sequence of multilevel regression models for each level (Hox et al., 2018). In the present study, to estimate Y_{ti} response variable of each i country measured at t year-time as measurement occasion, T is the time variable indicating the measurement occasion and X_{ti} is a time varying covariate. The model specification at the lowest level - the repeated measures level - is the following:

$$Y_{ti} = \pi_{0i} + \pi_{1i}T_{ti} + \pi_{2i}X_{ti} + \varepsilon_{ti} \quad (3)$$

where:

- π_{0i} is the intercept parameter
- $\pi_{1i} T_{ti}$ is the first regression slope coefficient for the explanatory variable associate to a t year-time variable T_{ti} for the i country observed at t year
- $\pi_{2i}X_{ti}$ is a time varying covariate
- ε_{ti} is the residual term.

At the second level, the countries' features Z_i enter the equation as time invariant covariates and the specification second level model is the following:

$$Y_{ti} = \beta_{00} + \beta_{10}T_{ti} + \beta_{20}X_{ti} + \beta_{01}Z_i + \beta_{11}T_{ti}Z_i + \beta_{21}X_{ti}Z_i + u_{1i}T_{ti} + u_{2i}X_{ti} + u_{0i} + e_{ti} \quad (4)$$



Results and discussion

Firstly, we estimate the empty or *null* model to check if the intra-class correlation ρ verifies enough variance at context level in order to justify the employment of a multilevel analysis (Hox et al. 2018). Since the data set of the present study is large, the minimum threshold for the above intra-class correlation of the *null* model should be higher than 10%. By data set, the context level is relevant because the value of ρ computed with σ^2 equal to 0.369, is $0.369 / (0.369+3.281) = 0.369 / 3.650 = 0.101 \cdot 100 = 10.1$ (Table 1). Furthermore, considering also the large number of countries (28), we can estimate the following repeated measures multilevel models.

Specifically, table 1 shows the values of *b*-unstandardized regression coefficients¹¹ and robust standard errors: we estimate the relationship of individual-level predictor and interaction effects of LM and NM, respectively in the first and second model, as independent variable and with number of refugees as aggregate level independent variable, and in a final model all the variables are entered and the interaction effects are estimated.

Table 1 - Attitudes towards non-European immigrants (*Y*-dependent variable): repeated measure multilevel models.

	Model 0		Model 1 (Legacy media)		Model 2 (New media)		Model 3 (All the variables)	
	<i>b</i> coeffic.	Robust St. Err.	<i>b</i> coeffic.	Robust St. Err.	<i>b</i> coeffic.	Robust St. Err.	<i>b</i> coeffic.	Robust St. Err.
Legacy media (never use)			-0.192*	0.091			-0.279**	0.090
New media (never use)					-0.249**	0.094	-0.381***	0.103
Number of Refugees (independent variable at aggregate level) (log)			0.009	0.067	0.221**	0.076	0.173*	0.077
Legacy media*Number of Refugees (log)			0.019	0.012			0.020*	0.010
New media*Number of Refugees (log)					0.030**	0.012	0.033***	0.007
Attitude towards European immigrants			2.905***	0.142	2.801***	0.130	2.791***	0.134
Immigration issue			-0.356	0.032	-0.353***	0.031	-0.749***	0.060
Gender (man)			0.206***	0.043	0.176***	0.041	0.160***	0.035
Occupation (self employed)								
employed			0.045	0.062	0.042	0.050	0.031	0.053
not working			-0.018	0.055	-0.008	0.043	-0.018	0.049
Economic evaluation index			0.196***	0.027	0.176***	0.020	0.178***	0.022
Type of community (rural area or village)								
small/middle town			0.009	0.051	0.001	0.039	0.003	0.042
large town			0.121*	0.054	0.109*	0.048	0.119*	0.048
Social Class (working class)								
lower middle class			0.051	0.058	0.049	0.054	0.051	0.052
middle class			0.125	0.051	0.118*	0.052	0.109*	0.053
upper middle class			0.274**	0.068	0.225**	0.069	0.228**	0.068

¹¹ On average, *b*-unstandardised regression coefficients show as if X_i goes up by 1 unit, the predicted Y_i -value would be expected to increase or decrease (on the basis of the positive or negative sign of *b* coefficients) by *b*-value to expected value of Y_i .

higher class				0.443**	0.156		0.419**	0.140		0.429**	0.148
Education (No full-time education)											
Still Studying				-0.159	0.192		-0.155	0.181		-0.140	0.180
up to 15 years				-0.374*	0.181		-0.345*	0.168		-0.343*	0.169
16-19 years				-0.342	0.179		-0.338*	0.166		-0.328	0.166
20+				-0.231	0.175		-0.222	0.158		-0.210	0.159
Age				-0.008***	0.009		-0.005***	0.001		-0.004***	0.059
Left right scale (left)											
centre left				0.442***	0.088		0.428***	0.079		0.437***	0.085
Centre				0.353***	0.061		0.339***	0.053		0.350***	0.062
centre right				-0.305***	0.058		-0.290***	0.051		-0.298***	0.059
Right				-0.246**	0.092		-0.228**	0.083		-0.239**	0.098
Number of Immigrants (log)				0.011	0.071		0.011	0.060		0.010	0.065
Constant	-0.668***	0.092		-4.742***	0.510		-4.988***	0.554		-4.348***	0.528
var (time)	16.602	15.301	12.154			10.844	-0.000		-0.000	12.115	10.766
var (cons)	0.369	0.106	0.223			0.069	0.259		0.048	0.199	0.071
Number observation	32,123		32,123			32,123				32,123	
Numbers of group	56		56			56				56	
ICC	0.100										
Wald (sig.)			0.000			0.000				0.000	

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Source: EUROSTAT, Eurobarometer 2017-2019.

In model 1, the first significant independent variable is the use of LM: the attitude towards no-European immigrants is more likely to become negative than when people never use them ($b = -0.192$, p -value < 0.05). Entering control variables, gender, economic evaluation aggregate index, large town, upper-middle level, higher level of social class is significant and positive as well as attitude towards European immigrants. Instead, education (only up to 15 years) and age are significant but negative as well as all the positions on the left-right scale, but centre-right and right are negative. Occupation, small/middle town, lower-middle and middle class, education for still studying, 16-19 years and over 20 years, and number of immigrants are not significant. Specifically, for the significant values, female gender is more likely to be significantly linked to a positive attitude towards no-European immigrants than male ($b = 0.206$, p -value < 0.001). If the subjective perceptions of the economic situation, measured by the economic evaluation index, are positive, the attitude towards no-European immigrants is more likely to become more positive ($b = 0.196$, p -value < 0.001). To live in a large town is a good predictor of attitude and has higher probability to be significantly linked to a positive attitude towards no-European immigrants than to live in a rural area or a village ($b = 0.121$, p -value < 0.05). For social class, passing from upper-middle level ($b = 0.274$, p -value < 0.01) to higher level ($b = 0.443$, p -value < 0.01), the values of b -coefficients show that the more the level of class increases, the more likely is a positive attitude than among the working class. A middle level of education, only up to 15 years, is more likely to be significantly linked with a negative attitude towards no-European immigrants than no full-time education ($b = -0.374$, p -value < 0.05). The relationship of the age is very significant (p -value < 0.001) but negative ($b = -0.008$): the more age increases the less likely is a positive attitude than when age decreases. In this model, the relationship of the left-right scale is very interesting. All the positions are significant, but the centre-left ($b = 0.442$, p -value < 0.001) and centre ($b = 0.353$, p -value < 0.001) have higher probability to be significantly linked to a positive attitude towards no-European immigrants than left and moving to centre-right ($b = 0.305$, p -value < 0.001) until right ($b = -0.246$, p -value < 0.01), a negative attitude is more and more likely compared to left. The value of attitude towards European immigrants is very significant (p -value < 0.001) and positive



($b=2.905$): the more the attitude towards European immigrants is positive/negative the more the attitude towards no-European immigrants is likely to become positive/negative.

In model 2, the relationship with the dependent variable is measured by entering the NM. This latter is significant but negative ($b=-0.249$, p -value <0.01): if the NM are used, the attitude shifts from positive to negative. Introducing in the model the number of refugees as a variable at aggregate level, the relationship is significant and positive ($b=0.221$, p -value <0.01) and also the interaction effect of NM use and number of refugees is significant and positive ($b=0.030$, p -value <0.01). In model 2, furthermore, the significance of the control variables is quite similar or less than in model 1 for gender, economic evaluation index, large town, upper-middle and higher class, up to 15 years of education, age, left-right placement, attitude towards European immigrants, and the immigration issue. In addition, in this second model only middle social class and 16-19 years of education are significant. The relationship with middle level social class is positive ($b=0.118$, p -value <0.05) showing that the more the middle level of class increases, the more a positive attitude is likely than among the working class. Even if the level of education is higher than middle, also for 16-19 years of education, as well as up to 15 years, this is more likely to affect a negative attitude towards no-European immigrants than no full-time education ($b=-0.338$, p -value <0.05). Furthermore, as in the first model the value of attitude towards European immigrants is very significant (p -value <0.001) and positive ($b=2.801$). The relationship of attitudes towards immigrants from Europe, indeed, is more likely to determine a positive attitude than no attitude in no-European immigrants. This shows that the more the attitude towards European immigrants is positive/negative the more the attitude towards no-European immigrants is likely to become positive/negative. However, when the immigration issue becomes an important topic for European public opinion, the European citizens' attitudes towards no-European immigrants are modified ($b=-0.353$, p -value <0.001).

In model 3, all the effects of the previous variables and some interactions between them have been estimated. The interaction effects are estimated, in order to specify the model taking into account whether a conjoint analysis of the single effects makes it possible to use, as predictors, new variables derived from the interactions between the original variables already entered in the model. With this in mind, both LM and NM appear significantly to affect attitudes towards immigrants from outside Europe.

With regard to LM, when their use to obtain political information by citizens increases, a clear anti-immigrant attitude is revealed for low amounts of refugees (Figure 1). This confirms that, if EU people frequently use LM, the probability of negative attitudes towards no-European refugees increases more than when LM are less often used, as already shown by the value of b -coefficient equal to -0.279 (p -value <0.01) in the model 3.

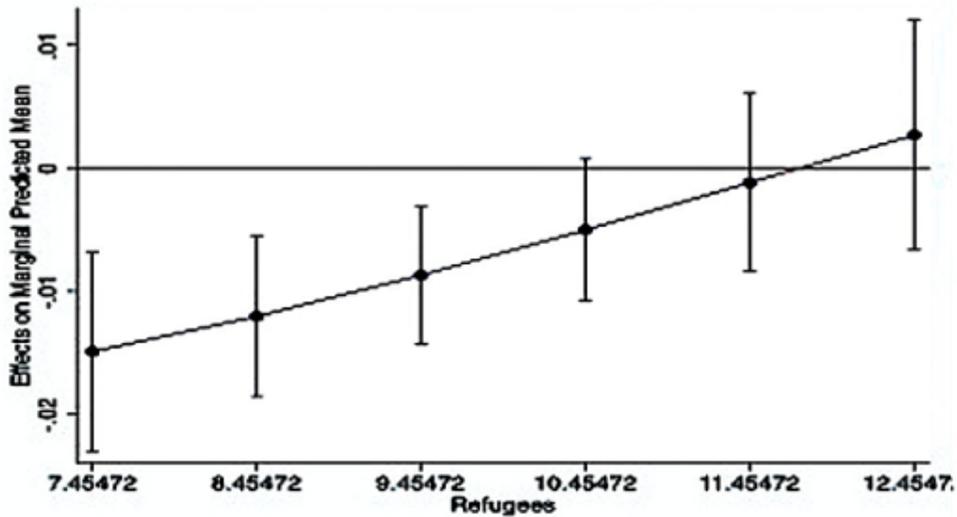


Figure 1 - Marginal effects of *LM* identified by index related to Refugees.

Unlike the LM, at least for high amounts of refugees (Figure 2), if NM is frequently used the likelihood of a relationship between EU citizens' attitudes towards no-European immigrants increases more than when NM are less used or never used and the relationship with the negative attitude is confirmed.

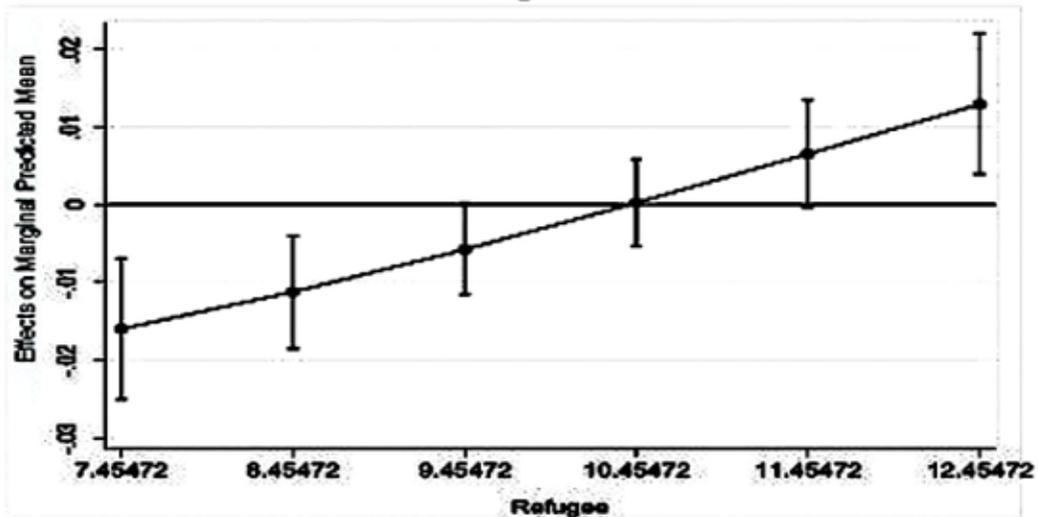


Figure 2 - Marginal effects of *NM* identified by index related to Refugees.

Comparing the two figures the importance of context highlights in explaining the attitudes toward migration but the different representation of the phenomenon offered by the media is also relevant. These results point to a scientific literature that focuses on the news content produced by LM and NM, highlighting in the latter case a greater degree of polarization and the effect of 'filters bubbles'. However, the available data do not allow us to analyse these topics as well, requiring further studies about the content.



Conclusions

In new digital media ecosystem, even those who do not possess direct knowledge or do not have direct experience of what is happening, become particularly reliant upon the media to get information. Media, by playing a facilitating role in the acquisition of information through the repetition and reinforcement of messages, contributes to shaping public opinion also on migration crisis issues in EU. Increasing migratory flows have transformed several European countries and the socio-economic policies that distinguish them. The recent economic crisis affected the employment situation of individual member countries, so that the public opinion increasingly worried about institutional performance. In this context the migration crisis has accentuated these trends, fuelling the opposition in public opinion towards immigration and stimulating anti-foreign attitudes. In the same way, the political results of the extreme right-wing populist parties in Britain, France, Greece, Austria and Germany have made the crisis even more acute. Analysts have linked these transformations in part to the growing anti-immigration attitude in Europe. As is well known, voters, especially in times of economic crisis, tend to resort to the scapegoat theory, and blame migrants for stealing work, housing and money. Alarmists have further contributed to make the scenario even bleaker.

In this study and only referred to the current hybrid media eco-system (Chadwick, 2017), by the analysis of the updated 3-wave data from Eurobarometer on public opinion from 2017 until 2019, emerges that the media affect differently the European citizens' attitudes towards no-European immigrants. LM manage to soften the negative attitude towards no-European immigrants, at least for low levels of immigration. On the contrary, NM are able to bring European citizens into line with even negative or hostile attitudes. Only NM, when used frequently and the refugees' number increases, are closely related with the European citizens' negative attitudes towards no-European immigrants, likely due to difficulty to manage migration crisis with effective policies (Ambrosini *et al.*, 2020).

By contrast with the findings of Diamanti (2016), Europeans appear to be particularly worried as the number of arrivals increases. This trend seems to confirm that immigration to Europe has become an increasingly common theme over time. The NM, probably more than LM, have contributed not a little to smoothing the immigration theme, bringing out the political and civil problems associated with it.

Our results show how media use can shift public attitudes towards no-European immigrants. The portraits of immigrants, especially in the NM, seem to generate the feeling that a social crisis is taking shape. However, these results must be treated with caution, and represent a first step in an in-depth study of the link between immigration and media use indicators.

As a potential limitation of this study, we could take into account a form of reverse causality: individuals who hold more negative news are more likely to turn to the Internet, with a larger variety of anti-immigrant sources than newspapers or radio? Our analysis, indeed, does not rule out such an interpretation of the results. New research should explore more deeply, by shedding light on the dynamics that develop in the joint use of LM and NM.

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