Seismo

Intergroup relations and media: The effects of media system quality in explaining immigration attitudes

Maija Ozola-Schade, Technical University Ilmenau, Department of Empirical Media Research and Political Communication, Institute of Media and Communication Science, Germany
maija.ozola@tu-ilmenau.de

Abstract
From an intergroup relations perspective, attitudes toward immigration derive from assessments of immigrants' ethnic proximity to the host society. However, attitudes are embedded not only in the notion of intergroup relations, they are influenced by the information environment in which public discourse about immigration is shaped. This paper investigates whether the quality of the media system contributes to the emergence of a well-informed public that is more likely to reinforce democratic values and thus have more positive attitudes toward immigration. The European Social Survey data (2002–2018) from 19 European countries are combined with media quality indicators from the Varieties of Democracy project and studied in a cross-national comparative perspective. Results confirm that Europeans prefer immigrants that are ethnically more similar to the majority of the host society, regardless of time or given country. Furthermore, attitudes are more positive in countries with stronger public services. Moreover, a higher quality media system that reflects the level of media freedom, opinion plurality, self-governance, and objectivity, fosters pro-immigration attitudes, especially for immigrants who are ethnically different from the host society.

Keywords
immigration attitudes, media system quality, intergroup relations, ethnic hierarchy, secondary data analysis, social cohesion

1   Introduction

International migration has led many societies to become more culturally and ethnically diverse. The public and political dispute over immigration effects and the role of immigrants in society has amplified over the years from a mainly economic issue to a cultural and social issue with an emphasis on preserving national identities (Davidov & Semyonov, 2017). The relevance of these controversies on immigration is becoming more urgent by the day, as they have the potential to intensify political polarization and radicalization and thereby threaten liberal democracies.

To date, there is extensive empirical literature derived from the intergroup relations perspective that analyses contextual factors and individual responses to a variety of questions about immigration. Theoretical arguments and the empirical evidence point at a possible link between threat perception (i.e., cultural, economic, safety) and immigration attitudes (Davidov & Semyonov, 2017). Central to this approach is that preferences over immigration are dependent primarily on perceptions and to a lesser extent on actual threats.

For many people, mass media is the main information provider of their perceived social reality (van Klingeren, Boomgaarden, Vliegenthart, & de Vreese, 2015). Therefore, the media play an important role in shaping public opinion. Recent studies on the subject provide evidence of media influence on individual attitudes toward immigration (Eberl et al., 2018). However, the evidence remains fragmented, leaving many questions unanswered. The complexity of the issue requires new theoretical perspectives. For example, McCombs (2012, p. 11) argues that individual media effects do not reflect the whole story, because "major social effects of com-

munication result from the collective impact of the media and the diversity of ways in which individuals come into contact with the media." Against this background, this paper aims to answer the question of whether people's attitudes toward immigration can be explained by higher level structures such as the information environment in which public discourse about immigration[1] is shaped.

By comparing immigration attitudes toward different ethnicities in 19 European countries from 2002–2018, this study is first to examine in detail similarities and differences in attitudes across different media environments, categorized according to media systems. Furthermore, it sheds a light on possible mechanisms that link macro-level media effects to public attitudes toward immigration in European societies. This is achieved by exploring how variations in the quality of media systems relate differently to attitudes toward same ethnicity immigrants as the majority of the society in the host country and different ethnicity immigrants.

2 Intergroup relations

The concept of social categorization in conjunction with social identity theory (Tajfel, Billig, Bundy, & Flament, 1971) provides meaningful insights into intergroup behavior and cognitive processes associated with it. Categorization is a function that organizes and structures people's knowledge about the world, for example, the affiliation of people to a certain group (Bodenhausen, Kang, & Peery, 2012). Social identity involves the activation of the perception of one's own group through self-attribution to this group, whereby the perceived membership of this social group

evokes an emotional attachment and a favorable evaluation of the group members (Turner & Crisp, 2010). Central to ingroup identification is ingroup favoritism in the presence of an outgroup (Billig & Tajfel, 1973), which is a well-documented phenomenon where people evaluate members of their own group more positively than those of the outgroup (Balliet, Wu, & de Dreu, 2014). Ultimately, intergroup relations are about differentiating the social world into "us" (ingroup) and "them" (outgroup), where attitudes toward outgroup result from active disassociation from that outgroup and assessments "of the outgroup in relation to the ingroup" (Brewer, 2010, p. 536).

The key element in the aforementioned notion is the conflict that subsists between the ingroup and the outgroup. The theory of the group threat (conflict) (Blalock, 1967) states that actual intergroup competition over resources presumably increases ingroup's perception of outgroups as a threat (Blalock, 1967), which, in turn, motivates ingroup members to form anti-outgroup attitudes (Blumer, 1958). Such intergroup competition can refer to tangible goods (e. g., economic) as well as intangible goods (e. g., culture) (Blalock, 1967). This theory has been tested and supported by many studies, also related to immigration attitudes (e. g., Billiet, Meuleman, & de Witte, 2014; Salamońska, 2016; Schneider, 2008).

The immigrant population is not homogeneous and we can speak of several sub-outgroups that are differently positioned in terms of similarity or dissimilarity to the ingroup. Research has shown that ingroups attribute different stereotypes and threats to different outgroups (Brader, Valentino, & Suhay, 2008; Hellwig & Sinno, 2017; Reyna, Dobria, & Wetherell, 2013). One reason for that rests upon the fact that in multi-cultural societies people tend to apply the ethnic hierarchy principle as a cognitive shortcut for judging other social groups (Hagendoorn, 1995; Hagendoorn & Pepels, 2017). Central to these studies are group-specific attributes, especially ethnicity, which refers to the learned aspects of racial background, language, religion,

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1 For this study immigration is defined as a process of moving across an international border by a person of another EU Member State or a third country, and establishing his or her usual residence in the territory of a receiving country. This encompasses any kind of movement of people, regardless of the causes (i. e., temporary or permanent, regular or irregular, forced or voluntary).

and culture (Connelly, Gayle, & Lambert, 2016). In other words, natives rank immigrants based on how socially desirable immigrants are perceived, in terms of cultural proximity or a threat to the social identity of the host society, as well as possible threats to natives' socio-economic status. From that, it is reasonable to expect that in the presence of multiple ethnic sub-outgroups, nationals would exhibit a more favorable attitude toward ethnically proximate immigrant groups.

Several studies have shown that in Europe there is a systematic ranking (hierarchies) of ethnic groups based on societal proximity (e.g., similar lifestyles and values, and common ethnic traits). For example, Vernby and Dancygier (2019) looked into labor market discrimination in Sweden and found that call-back rates declined with the degree of ethnocultural distance. Namely, Swedish nationals received the most call-backs, followed by Polish nationals, leaving Iraqis and Somalis with lower employment chances. Schachner, van de Vijver, Brenick, and Noack (2016) studied early adolescents from 64 countries in a multi-ethnic school in Germany and reported that friendships are built between groups that are culturally more alike. Similarly, in Denmark a study by Verkuyten and Kinket (2000) on children aged 10–12, which represented six ethnic groups, reported that children have a preference for contact with ingroup members, they also confirmed that children form ethnic hierarchies among classmates. Lastly, Ford (2011) found strong evidence for a consistent hierarchy of immigrant preferences in Britain, namely, white and culturally more proximate immigrant groups are evaluated more favorable than non-white and culturally more distinct immigrants. Against this background, the following hypothesis is stated:

H1: European nationals will have permanently more favorable attitudes toward immigrants from a similar ethnicity as the majority than toward immigrants from different ethnicity.

3 Macro-level media effects

Intergroup relations are often based on indirect experiences and thus guided by mediated perceptions of involved groups. By and large, the mass media are considered the central information channel for people's perceptions of others and the primary source for public knowledge about most issues and developments in the real world (Djerf-Pierre & Shehata, 2017). It can be argued that news media foster the readiness to categorize others, by emphasizing the ethnicity of immigrants discussed in news coverage. And indeed, empirical evidence from different countries shows that group cues in news coverage enable heuristic processing of information (that is, the use of mental shortcuts such as stereotypes) and thus affect individual attitudes toward specific outgroups (e.g., Fernández et al., 2013; Theorin, 2019).

Prior research has identified patterns of media coverage on immigration (e.g., Heidenreich, Lind, Eberl, & Boomgaarden, 2019; Lawlor & Tolley, 2017) and confirmed individual-level media effects on immigration attitudes in various European countries (e.g., Cooper, Blumell, & Bunce, 2020; van Klingeren et al., 2015). However, less is known about how context or higher-level structures may affect mass communication and consequently public attitudes toward outgroups and immigration in general. Thus, in this research, media are approached from a broader perspective and considered as an overall information environment. The focus then becomes political communication systems in which parameters for public discussions are set (Boomgaarden & Song, 2019). In other words, it is about the aggregation of the information environment that affects the public at large. This approach assumes indirect effects of media (for a discussion see Maurer, 2017). It considers individuals as being embedded in a wider context and recognizes the role of interpersonal communication in transmitting political information. It implies that, through the exchange of communication in the family, social networks, neighborhoods, or workplace, even those members of society who

do not (frequently) have direct exposure to the media become aware of its messages (Boomgaarden & Vliegenthart, 2009).

For example, Krause and Gehrau (2007) found indirect agenda-setting effects on people who seldom consume TV news. The effect becomes significant a few days later, which they interpret as a consequence of interpersonal communication. Similarly, Yang and Stone (2003) compared two groups of individuals – one group that relies on mass media for news and the other group that relies on interpersonal communication for news – and matched each group's agenda to the news media agenda. The results showed that those who rely on interpersonal communication for news and public affairs have the same media-directed agenda as those who rely heavily on the mass media. In sum, it is plausible and empirically already demonstrated that mass media, which is a part of the entire information environment, can have effects on society as a whole. Thus, it demands the attempt to examine the context in which media discussion on immigration is shaped.

3.1 Comparative perspective

To generate a more comprehensive understanding of the information environment and its effects on the public, we ask whether attitudes toward immigration differ between nations according to their specific media system (Esser & Hanitzsch, 2012). Comparative communication research is about "understanding how characteristics of the contextual environment in which individual media users are situated shape their communication processes, and how such processes vary across different settings" (Boomgaarden & Song, 2019, p. 548). At its very basics, it is understood as conceptualizing units in macro terms and reaching conclusions beyond a single system and explaining the similarities and differences between objects of analysis (Esser & Vliegenthart, 2017).

The work of Hallin and Mancini (2004) has provided a typology of media systems that has become the point of reference in today's comparative communication research. The purpose of the typology is to

describe patterns of journalistic practices, media policies, media markets, and media use in a given society. It is based on four empirical dimensions – media markets, political parallelism, journalistic professionalism, and role of the state – that result in three models of media systems: (1) the "democratic corporatist model" that includes countries with welfare state traditions, strong public service broadcasters, and partisan media; (2) the "liberal model," which is characterized by a weak role of the state and strong objective journalism; and (3) the "polarized pluralist model" with highly politicized media and low journalistic professionalism. Ultimately, the typology enables us to examine whether variations in how media are organized affect the quality of democratic processes by providing different kinds of reporting and patterns in public knowledge.

A normative perspective suggests that free, objective and professional media perform the watchdog functions over political entities by guarding public interest and providing a space for public debate that supports the processes of democracy (Thussu, 2008). The underlying mechanism is that the media provide sufficient and relevant political information so that citizens are adequately informed about public affairs (Banducci, Giebler, & Kritzinger, 2017). This is pertinent to the discussion of immigration attitudes because immigration is a highly complex political issue. The perception of immigration as a threat will vary depending on how well-informed individuals are about the issue and how the news media cover the topic (Jacobs, Meeusen, & d'Haenens, 2016). From this, it can be inferred that media systems underpin differences in available media sources (private vs. public) and explain cross-national differences in the levels of political knowledge and misperceptions about immigration. For instance, prior research has established that in countries with a higher share of public service media (i.e., democratic corporatist model) citizens have higher political knowledge (Curran, Iyengar, Brink Lund, & Salovaara-Moring, 2009) and fewer misperceptions about immigra-

tion (Aalberg & Strabac, 2010) compared to those citizens living in countries that belong to a liberal or polarized pluralist model.

Against this background, the theoretical expectation is that variations in media systems would yield differences in the information environment, which, in turn, would yield differences in attitudes toward immigration. Thus, the second hypothesis is:

H2: People living in countries with a democratic corporatist media system have more positive attitudes toward immigration than those living in countries with a liberal or polarized pluralist media system.

Yet it remains unknown how group ranking plays out in different media systems. Therefore, we examine the relationship between media systems and attitudes toward immigration in relation to outgroup ranking.

RQ: Are there specific differences in attitudes toward immigrants with the same or different ethnic background in different media systems?

Although Hallin and Mancini's typology is a useful tool for categorizing a complex world into manageable groups, it has been criticized for lacking precise operationalization and standardized measurements (Norris, 2009). More importantly, the categorization of several countries in a particular type of media system has been questioned to a great deal. For example, among others, Britain is a part of the liberal model despite the existence of strong media partisanship and strong public service broadcasting, or Germany with its absence of direct press subsidies does not fit in the sample of the democratic corporatist model, rather it is closer to that of Britain's model (Brüggemann, Engesser, Büchel, Humprecht, & Castro, 2014). The authors themselves admit that there are many limitations and advocate for caution when making interferences "rather casually, without much reflection on the relation of the particular case to [the] models – since many cases do not coincide neatly with the ideal types" (Hallin & Mancini, 2017, p. 157). To overcome these shortcomings, this study puts forth a quality framework for testing the effects of the media system on attitudes.

3.2 The quality of media system

This research goes beyond the structural characteristics of media systems and offers a new methodological approach by focusing on quality measurements of the media system, thereby examining media effects on public attitudes toward immigration and answering the question of whether such measurement of quality can shed a light on outgroup ranking. Particularly for Central and Eastern European countries, such continuous measurement of quality is more suggestive, as the system in those countries is still in dynamic movement compared to Western Europe (Dobek-Ostrowska, 2019).

With "quality" this research means the extent to which media system measurements related to media freedom and pluralism can secure diverse and critical coverage of political issues. In a very broad sense, media pluralism recognizes the diversity of political opinions, reinforces democratic values, and facilitates open and free political debate (Klimkiewicz, 2010). Media freedom, on the other hand, is understood as an "idea that a free press is able to hold those in power accountable" and it is conceptualized as "an environment in which journalists are able to safely criticize political and economic elites at both the national and local levels" (Whitten-Woodring & van Belle, 2017, p. 180).

Such measurements of media quality are closely related to dimensions of media systems defined by Hallin and Mancini and thus can be indicative of media system effects on immigration attitudes. This is based on the assumption that citizens who are embedded in a higher quality media system are better informed about public issues (Leeson, 2008). These citizens are more likely to reinforce democratic values and support democratic processes (Goidel, Gaddie, & Ehrl, 2017) and, con-

sequently, have more positive attitudes toward immigration (de Coninck, Matthijs, Debrael, de Cock, & d'Haenens, 2019). While it is reasonable to assume that the quality of the media system has positive effects on immigration attitudes in general, it is unknown whether quality measurement would have the same effects on attitudes toward similar ethnicity immigrants compared to immigrants from a different ethnicity. Accordingly, the same hypotheses for both groups are stated:

H3a: The higher the quality of the media system, the more positive will be the attitudes toward the same ethnicity immigration.

H3b: The higher the quality of the media system, the more positive will be the attitudes toward different ethnicity immigration.

4   Data and methods

This research employs a comparative design that relies on macrolevel classification (i. e., media systems), therefore, nations are used as units of investigation. Moreover, this study follows a multilevel approach and includes two levels: individuals (level 1) that are nested in countries (level 2). To test hypotheses and answer the research question, this study utilizes secondary data collected from five data sources (discussed below).

4.1 Immigration attitudes
To operationalize the dependent variables, data from the European Social Survey (ESS) are used. The ESS is a cross-national survey conducted every two years in 23 EU Member States. The ESS contains two immigration-related standard questions for every country in every available year. These are indicators for measuring attitudes toward immigration taking into account the premise of outgroup ranking: (1) To what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here? (2) How about people

of a different race or ethnic group from most [country] people? The survey offers four ordered responses to both questions: 1 (allow many to come and live here), 2 (allow some), 3 (allow few), 4 (allow none). For the analysis, the responses are reordered and measured on a 4-point scale: from 1 (allow none to come and live here) to 4 (allow many to come and live here) (same ethnicity $M = 2.80$, $SD = 0.83$, different ethnicity $M = 2.52$, $SD = 0.87$).

In this research, nine rounds (collected in years 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018) of the ESS (ESS ERIC, 2018a, 2018b, 2018c, 2018d, 2018e, 2018f, 2018g, 2020, 2021) from 19 European countries are utilized. A country was included in the sample if it participated in eight out of nine available rounds.[2] The data was weighted by post-stratified design weight, as suggested by the ESS (Kaminska, 2020). Furthermore, for the analysis only those cases were used that matched the following criteria: individuals that are citizens of the host country, aged 18–100, and do not belong to any ethnic minority group which corresponds to active disassociation from the outgroup. Consequently, the sample consists of 167 cases at level 2 and 276 575 cases at level 1.

4.2 Country classification
As elaborated above, this research relies on Hallin and Mancini's (2004) typology for media systems. This is a categorical variable and enables cross-national comparison. While not all countries intended for this study are originally included in the typology, further research has expanded the work of Hallin and Mancini to other countries and regions, thereby categorizing countries such as Estonia, Czech Republic, Hungary, Poland, and Slovenia according to the most fitting media systems. An overview of media systems and country categorization is presented in Table 1.

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2   ESS survey was not carried out in the following countries in specific years: Estonia (2002), Czech Republic (2006), Austria (2008), and Denmark (2016).

Table 1: Media systems typology according to Hallin and Mancini (2004)

Countries	Polarized pluralistic	Democratic corporatist	Liberal
	ES, FR, PT, HU[a], PL[a], SI[a]	AT, BE, CH, DE, DK, FI, NL, NO, SE, CZ[b]	GB, IE, EE[c]
Press market	Low	High	High
Political parallelism	High	High	Low
Journalistic professionalism	Low	High	High
Role of the state	High	High	Low

Note: [a] Countries most similar to polarized pluralistic model as discussed in Bajomi-Lazar (2017) for Hungary, Dobek-Ostrowska (2011) for Poland, as well as Aalberg and Milosavljević (2016) for Slovenia. [b] Country most similar to democratic corporatist model as discussed in Köpplová and Jirák (2008). [c] Country most similar to liberal model as discussed in Dobek-Ostrowska (2019).

4.3 Explanatory variables

The quality of the media system is operationalized using items from the Varieties of Democracy (V-Dem) database. The database comprises 350 indicators on democracy and political systems and covers 177 countries from 1900–2018. It relies on country experts who assess a variety of variables, providing ratings to directly observable as well as latent concepts. The main advantage of such large-scale data provided by the V-Dem project is its quality, as it is professionally collected, using quality sampling and weighing methods (Coppedge et al., 2021).

The overall dataset includes ten items related to the media system in a given country. Each item is an aggregate estimate of country-year observation given by five independent experts who rate each case. To account and adjust for differences in how experts apply ordinal scales to cases and variation in rater reliability, V-Dem provides a thorough overview of methodology related to measurement models for latent variables (Pemstein et al., 2022). To the author's knowledge, there is no other data source that offers an extensive amount of data related to the subject of interest. For this research, five media-related items are selected from the database that represent the quality of the print (newspapers and magazines) and broadcast (radio and television) media in selected countries from 2002–2018:

1) Government censorship efforts: "Does the government directly or indirectly attempt to censor the print or broadcast media?"

2) Media critical: "Of the major print and broadcast outlets, how many routinely criticize the government?"
3) Variety of perspectives: "Do the major print and broadcast media represent a wide range of political perspectives?"
4) Media self-censorship: "Is there self-censorship among journalists when reporting on issues that the government considers politically sensitive?"
5) Media bias: "Is there media bias against opposition parties or candidates?"

For the analysis, an index of media system quality is built by calculating the mean of the five items, as all items are highly correlating (ranging between $r = 0.56$ and $r = 0.75$). Moreover, to assure that items included in the index express related information for the measurement of media system quality, a principal components analysis (PCA) is carried out without specifying the number of components that should be extracted ($KMO = 0.83$, χ^2 $(10) = 533.6$, $p < .001$). Through the PCA analysis, one component with an Eigenvalue greater than 1 is extracted and it accounts for 72.45 % of explained variance. Item loadings range between 0.78 and 0.89 indicating a high correlation between an item and the component. Table 2 provides an overview of descriptive data of media system quality index categorized by Hallin and Mancini's typology.

To conduct a reliable estimate of the impact of the quality of the media system on attitudes toward immigration several macro and individual-level variables are controlled. These control variables are considered based on theoretical reasoning

Table 2:   Descriptive statistics of media system quality index by country

	N	Min	Max	*M*	*SD*
Polarized pluralistic					
France	9	2.28	3.13	2.63	0.26
Spain	9	1.91	2.64	2.36	0.29
Portugal	9	2.15	2.36	2.31	0.07
Poland	9	0.51	2.54	2.04	0.81
Slovenia	9	1.37	2.17	1.71	0.33
Hungary	9	0.05	1.97	1.27	0.75
Democratic corporatist					
Switzerland	9	2.60	2.96	2.80	0.13
Denmark	8	2.54	2.83	2.76	0.12
Belgium	9	2.30	2.80	2.71	0.16
Norway	9	2.26	2.74	2.63	0.15
Sweden	9	2.35	2.72	2.60	0.13
Germany	9	1.68	2.75	2.53	0.35
Finland	9	1.83	2.67	2.52	0.30
Czech Republic	8	1.63	2.72	2.27	0.50
Netherlands	9	2.04	2.46	2.27	0.14
Austria	8	1.32	2.26	2.07	0.30
Liberal					
Ireland	9	2.36	2.79	2.53	0.14
Estonia	8	2.24	2.60	2.49	0.10
United Kingdom	9	2.09	2.99	2.31	0.27

Note: Mean of 5 indicators in 9 points of time (scale from 0 = low quality to 4 = high quality).

as well as prior empirical findings, as discussed below.

Macro level. To account for the diversification of the media landscape as a result of the spread of online content, data from OECD is used. This data represents the percentage of households who reported that they have access to the Internet and cover years from 2005–2019. To deal with missing data for the years 2002–2004, the regression imputation method was performed for every country to replace the missing values. To estimate the curve, it was tested for linear, quadratic and cubic regression models. The cubic model performed slightly better and thus was used to predict missing values ($M=68.57$, $SD = 22.23$) (summary of curve estimate results in Appendix, Table A1).

To control for the contact hypothesis (Allport, 1954) at the macro level, the size of the immigrant population is included in the analysis. The data for this measurement is collected from the Eurostat database and consists of the total immigrant population in a given country (log data $M=4.96$, $SD=0.58$). Although this indicator does not directly address the ethnic variability of the immigrant population, it is necessary to use it, as it is the only indicator across numerous data sources (i. e., Eurostat data by regions of origins, OECD, UN DESA) that covers countries and years relevant to this study.[3]

Macro-economic variables are used to control for resource distribution and deservingness hypothesis (van Oorschot, 2000). Data from Destatis (2021a, 2021b; Federal Statistical Office of Germany) are used as GDP per capita ($M=4.52$, $SD=0.25$) and unemployment indicators (in percentages $M=7.59$, $SD=3.85$), and the OECD database provides data for social expenditure indicator as a percentage of the GDP ($M=22.71$, $SD=4.34$). All variables are continuous and to assure that the data is normally distributed, a log transformation is used for GDP per capita

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3   No data on immigration population is available for France in 2002 and 2004, and Belgium in 2008.

and immigrant population variables. Furthermore, types of media systems were included in the analysis as dummy variables.

Micro level. The analysis controls for several individual-level variables provided by the ESS survey. First, respondents' age is included as one of the control variables ($M = 48.34$, $SD = 18.04$), as is political ideology, which is measured on a 11-point Likert-scale, where 0 is far-left and 10 is far-right ($M = 5.12$, $SD = 2.13$).

In line with the contact theory, contact between different group members may reduce unfavorable intergroup attitudes (Friedrichs, Lesske, & Schwarzenberg, 2019). Thus, considering that immigrants mostly settle in urban areas and the overall opposition toward immigration is more pronounced in rural areas (e.g., Zahl Thanem & Haugen, 2019), place of residence is used as a proxy for intergroup contact at individual level. Survey respondents were asked to describe the area where they live on a 5-point scale, where 1 is "a big city" and 5 is "a farm or home in the countryside." Values were turned for the analysis ($M = 2.98$, $SD = 1.19$).

Lastly, the theory on group threat suggests that negative feelings toward immigrants can be caused by natives' economic insecurity (Burns & Gimpel, 2000). Commonly measured as individual income level, this study uses self-reported socioeconomic evaluation (subjective income), which is measured with a survey question: "Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?" The survey provides four possible answers: 1 – "living comfortably on present income," 2 – "coping on present income," 3 – "difficult on present income," 4 – "very difficult on present income." Values were reordered for the analysis, where 1 is "very difficult" and 4 is "living comfortably" ($M = 3.10$, $SD = 0.80$).

4.4 Analysis
To answer H1, H2 and RQ1 paired sample t-tests and Analysis of Variance (ANOVA) are carried out. To answer H3a and H3b, multilevel analyses are conducted. Before testing for predictors, a null model (Model 0) is calculated to see if the grouping variable at level 2 (countries) significantly affects the intercept of the dependent variables (immigration attitudes) at level 1. By doing this, the Variance Partition Coefficient (VPC) is calculated[4] that represents the proportion of attitude variance that can be explained by mean differences across countries (Garson, 2019). Subsequently, predictor and control variables were inserted hierarchically in the model, starting with macro level (Model 1) and then adding individual level control variables (Model 2). In regression, only variables that are significantly correlating with dependent variables are included.

5 Results

There are two parts to this section. First, association between the dependent variables are explored and compared within the context of media systems. Subsequently, it is continued with multilevel regression modelling to test for media system quality effects on immigration attitudes.

5.1 Intergroup relations
Results show that European immigration attitudes toward same ethnicity immigrants ($M = 2.80$, $SD = 0.83$) are more favorable compared to different ethnicity immigrants ($M = 2.52$, $SD = 0.87$). A paired sample t-test was conducted to test H1 and it confirms that there are statistical differences in mean attitudes based on ethnicity $t(268095) = 232.46$, $p < .000$, and the difference is statistically consistent over time (see Appendix, Table A2). The analysis was performed also to cross-examine every country in the sample. The results confirm the same relationship in every country. Taken together, the ethnicity of immigrants may affect immigration attitudes. There is an inclination to construct rankings and to prefer ethnically similar groups over dissimilar groups.

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4 The Variance Partition Coefficient (VPC) is calculated by taking the variance component of the level 2 (country) variable and dividing it by the total of all variance components.

H2 introduces media systems as contextual variable for comparison. The hypothesis states that attitudes toward immigration in general are more positive in countries with a democratic corporatism media system compared to the other two. First, the one way ANOVA shows that the effect of media systems is significant, meaning there are significant differences in attitudes across media systems, for both the same ethnicity $F(2, 269767) = 1608.54$, $p < .000$ and different ethnicity $F(2, 269543) = 1066.79$, $p < .000$. Descriptive statistics lay out these variations for same ethnicity: Democratic corporatism model ($M = 2.88$, $SD = 0.80$), polarized pluralistic ($M = 2.67$, $SD = 0.88$) and liberal model ($M = 2.77$, $SD = 0.84$). And these are the results for different ethnicity: Democratic corporatism model ($M = 2.59$, $SD = 0.84$), polarized pluralistic ($M = 2.41$, $SD = 0.90$) and liberal model ($M = 2.51$, $SD = 0.86$).

Second, the post hoc analysis using the Games-Howell criterion further shows the exact relationship dynamics. Namely, there are statistically significant differences in attitudes between countries with a democratic corporatist and polarized pluralistic model (same ethnicity *Mean Difference* = 0.20, $p < .000$; different ethnicity *Mean Difference* = 0.17, $p < .000$), as well as democratic corporatist and liberal model (same ethnicity *Mean Difference* = 0.11, $p < .000$, different ethnicity *Mean Difference* = 0.08, $p < .000$). Additionally, statistically significant differences in means are also found between countries with a polarized pluralistic and a liberal model (same ethnicity *Mean Difference* = −0.10, $p < .000$, different ethnicity *Mean Difference* = −0.09, $p < .000$).

From the analyses carried out so far, one can expect ethnic ranking to be present across media systems (RQ1). To confirm the conclusion a paired sample t-test was performed with the sample split by media systems. Results show that in every media system immigrants that are ethnically similar to the nationals are perceived more favorably than immigrants that come from a different ethnic background: in countries with a polarized pluralistic model *Mean Difference* = 0.26, $t(78945) = 113.93$, $p < .000$,

with a liberal model *Mean Difference* = 0.27, $t(44535) = 88.89$, $p < .000$, and with a democratic corporatist model *Mean Difference* = 0.29, $t(144612) = 183.96$, $p < .000$.

5.2 Media system quality

H3 refers to the general effects of media quality: The higher the quality of the media system, the more positive are attitudes toward immigration. To start with the same ethnicity immigration (H3a), the null model shows that attitudes vary significantly between countries. Without any predictor variables, seven percent of the variance in attitudes can be explained by country differences. Although the null model shows that there is a degree of clustering in the data, the majority of attitude variation lies within a country at the individual level.

Table 3 presents the results of two-level modelling. Model 1a for same ethnicity immigration tests the relationship between media system quality and attitudes and is controlled for macro-level variables. Results show a significant positive relationship, meaning, the higher the quality of media, the more positive are the attitudes toward the same ethnicity immigrants. These results confirm H3a. Model 2a excludes dummy variables for media systems types and unemployment rate because they remain insignificant if included in subsequent models. Ultimately, Model 2a indicates the same relationship and strength between media system quality and attitudes ($B = 0.103$, $p < .000$), even after controlling for macro level and micro level variables. Further results show that a higher increase in Internet access ($B = 0.005$, $p < .000$) has a very small, yet statistically significant effect on pro-immigration attitudes, while an increase in total immigrant population has a small negative effect on pro-immigration attitudes ($B = −0.04$, $p < .01$). As for the macro-economic indicators, increase in the GDP per capita ($B = −0.31$, $p < .000$) and country's social spending ($B = −0.02$, $p < .000$) have been found to negatively affect pro-immigration attitudes. At individual level, the older the nationals ($B = −0.004$, $p < .000$) and politically right-leaning they are ($B = −0.04$,

Table 3:   Predicting the effect of media system quality on immigration attitudes

	Same ethnicity			Different ethnicity		
	Model 0a	Model 1a	Model 2a	Model 0b	Model 1b	Model 2b
Intercept	2.81	3.94	4.02	2.52	3.24	3.31
Variance within country	0.65***	0.64***	0.60***	0.68***	0.68***	0.62***
Variance among countries	0.05**	0.05**	0.04**	0.07**	0.07**	0.05**
Variance Partition Co-efficient (VPC)	7 %	7 %	7 %	9 %	9 %	8 %
Macro Level						
Media system quality		0.102***	0.103***		0.155***	0.156***
		(.006)	(.006)		(.006)	(.006)
Internet access		0.005***	0.005***		0.005***	0.005***
		(.000)	(.000)		(.000)	(.000)
Immigrant population		−0.03**	−0.04**		−0.04***	−0.05***
		(.010)	(.009)		(.011)	(.010)
GDP per capita		−0.32***	−0.31***		−0.26***	−0.24***
		(.032)	(.032)		(.033)	(.033)
Unemployment rate		n.s.	–		n.s.	–
Social spending		−0.02***	−0.02***		−0.01***	−0.01***
		(.001)	(.001)		(.001)	(.001)
Democratic corporatist		Ref.	–		Ref.	–
Polarized pluralistic		n.s.	–		n.s.	–
Liberal		n.s.	–		n.s.	–
Micro Level						
Age			−0.004***			−0.01***
			(.000)			(.000)
Political ideology			−0.04***			−0.06***
			(.001)			(.001)
Place of residence			0.04***			0.06***
			(.001)			(.001)
Subjective income			0.14***			0.15***
			(.002)			(.002)

Note: Unstandardized B coefficients (B); *** = $p < .001$; ** = $p < .01$; * = $p < .05$; n.s. not significant.

$p < .000$), the more negative become their attitudes. On the other hand, nationals living in urban areas ($B = 0.04$, $p < .000$), and those who perceive their economic situation as comfortable ($B = 0.14$, $p < .000$) report a significantly higher pro-immigration attitude toward same ethnicity immigrants.

H3b refers to attitudes toward different ethnicity immigrants. Again, the null model shows a degree of clustering in the data, namely, nine percent of the variance in immigration attitudes are attributed to country differences. Findings show (Model 2b) that at the country level higher media system quality has a positive effect

on pro-immigration attitudes ($B = 0.156$, $p < .000$), which confirms H3b. In addition to this, higher access rates to Internet ($B = 0.005$, $p < .000$) also predicts pro-immigration attitudes significantly. On the other hand, negative and significant associations have been found with increased immigrant population ($B = −0.05$, $p < .000$), higher GDP per capita ($B = −0.24$, $p < .000$), and increased social spending ($B = −0.01$, $p < .000$). Media system types and unemployment rate proved to be insignificant in explaining attitudes, therefore they were not included in Model 2b.

At individual level, again, as in the case of attitudes toward same ethnicity immi-

gration, older ($B=-0.01$, $p<.000$) and politically right leaning nationals ($B=-0.06$, $p<.000$) report significantly more negative attitudes toward different ethnicity immigration. While living in urban area ($B=0.06$, $p<.000$) and reporting higher subjective income ($B=0.15$, $p<.000$) are positively associated with pro-immigration attitudes.

Lastly, obtained regression coefficients for the effects of the media system quality on immigration attitudes are compared between Model 2a and Model 2b. By doing this, it is tested whether media effects are statistically different between attitudes toward same ethnicity immigration and different ethnicity immigration. To achieve this, coefficient difference and standard error (with confidence interval) are calculated (as suggested in Altman & Bland, 2003). Subsequently, the p-value is obtained from a confidence interval (Altman & Bland, 2011). Results show a statistically significant difference in media effects on attitudes toward same ethnicity immigration and different ethnicity immigration with the estimated coefficient difference of 0.053 (95 % CI 0.04 to 0.07, $p<.001$).

6   Discussion and conclusion

The departure point of this study was intergroup relations and how people position themselves in relation to others. Results demonstrate that in all settings (i. e., across media systems and years) attitudes toward the same ethnicity immigrants are more favorable compared to immigrants from different ethnicity, which corroborate findings of prior research (e. g., de Coninck, 2020; Ford, 2011). From this, we can conclude that the ethnic ranking of immigrants is a universal principle observed over time and in every examined European society.

The results obtained also support theoretical assumptions regarding media systems as a contextual environment, confirming H2. Findings illustrate that public attitudes toward immigration are more favorable in countries that have stronger public broadcasting services offering multiple points of views (i. e., belonging to the democratic corporatist model) compared to those countries where public services are weak (i. e., liberal model) or where the unregulated environment has led to state intervention that takes a form of serving particular political interest (i. e., pluralistic polarized model) (Hallin & Mancini, 2004). The fact that attitudes are more favorable in media systems that have higher journalistic professionalism (i. e., democratic corporatist and liberal model) are also indicative. Particularly the discourse on immigration can be sensitive to the art of reporting because this issue is highly politicized (Grande, Schwarzbözl, & Fatke, 2019). Furthermore, people that do not have a direct experience with immigration rely on media to orient themselves around the topic. In such a case, objective and comprehensive reporting can lead to better-informed citizens whose opinions about immigration are driven by facts (Aalberg & Strabac, 2010). Moreover, an informed citizenry is likely to have more stable attitudes (Freeder, Lenz, & Turney, 2019) and thus may be less susceptible to shifts in the discourse during crises (as observed in Greussing & Boomgaarden, 2017).

The findings from multilevel regression analyses show that media system quality can exert indirect macro-level effects on public attitudes toward immigration. To be precise, a higher quality of media system (which means greater media freedom, opinion plurality, self-governance, and objectivity) leads to more positive attitudes (as in line with hypotheses H3a and H3b). These effects have been found for both – attitudes toward same and different ethnicity immigrants. However, the media effect is stronger for attitudes toward outgroups (immigrants) that are dissimilar to the ingroup (nationals) and the difference is statistically significant. One possible explanation is that ingroup members (nationals) hold a greater social distance (Kteily, Sidanius, & Levin, 2011) and have less personal contact with immigrants from different ethnic backgrounds, hence, they become more dependent on media content to fill the knowledge gap

about the outgroup (Gadarian & Albertson, 2014). A further explanation can be related to media framing research, namely, immigrant groups from non-European countries tend to be framed in terms of cultural and security aspects and less related to economic factors (Eberl et al., 2017), therefore, it is reasonable to argue that better media quality would lead to more objective and less sensationalism loaded representations of different ethnicity immigrants. This, in turn, would reduce perceived threats of immigration and foster more positive attitudes toward respective outgroup (de Coninck et al., 2018).

Further findings show that not only the quality of traditional media affects attitudes, but also access to the Internet has fostered slightly pro-immigration attitudes. Arguably, the transition from low to high choice information environment has implications on political knowledge and attitudes. The online environment can influence how citizens learn about public affairs because it lowers the barriers to access political information and thus can be "a potential solution to the knowledge gap" (Bode, 2016, p. 28). It is also likely that inadvertent learning takes place in the online environment, which would not exclude the possibility of mere exposure effects. Such exposure can promote familiarity with the issue and be a source of prejudice reduction (Flores et al., 2018).

In summary, these results direct to the importance of contextual factors such as information environment in explaining immigration attitudes, even after controlling for other macro and individual level variables. With a brief look at the individual-level, as is common in the related literature (e.g., García-Muñoz & Milgram-Baleix, 2021), results demonstrate that pro immigration preferences are positively and robustly correlated with perceived higher household income and place of residence. These results are in line with the hypothesis derived from group threat theory, according to which the competition of economic resources would be less pronounced among natives who perceive their economic situation as comfortable. Moreover, consistent with the

contact hypothesis and empirical findings (e.g., Fussell, 2014), racial diversity that is more distinct in urban areas fosters more positive attitudes. However, it is confronted with the negative effects of the sheer number of the immigrant population at the macro level, which would correspond with group threat theory. One possible explanation could be the level of education among nationals. Namely, the literature has stressed the role of education in shaping preferences toward immigration, in that, higher levels of education are consistently associated with pro-immigration attitudes (Borgonovi & Pokropek, 2019; García-Muñoz & Milgram-Baleix, 2021). It is also well documented that well educated and skilled individuals are likelier to reside in urban regions with better employment possibilities compared to rural regions (e.g., Baum-Snow, Freedman, & Pavan, 2018; van Maarseveen, 2021). Taking these two aspects into account may explain the differences found at micro and macro levels.

As in any research, this study is not without limitations. First, the data used in this study is secondary, which comes with its typical drawbacks. Most significantly, the analysis was limited within the boundaries of variables that are too broad to measure ethnic ranking. Thus, the indicators did not measure attitudes toward a specific ethnic group and its position with reference to other ethnic groups but instead the general tendency. To author's knowledge, there are no longitudinal and cross-national secondary data available that would make a more detailed distinction of ethnic groups. Second, the ESS is limited to every two years, and not all European countries take part in every round, therefore, the analysis is also limited to available data leaving countries that are highly affected by refugee influx (e.g., Greece, Italy) or immigration in general (e.g., Luxembourg) out of the analysis. Third, the analysis would greatly benefit from media use variable at individual level. Unfortunately, the ESS does not provide a consistent measurement over the examined period, rather several variables measure media use, but at the same time differ

in their meanings. For example, before the year 2012, the survey measured the time spent TV, radio, and newspaper reading. From 2012 till 2014, only TV watching was measured. And from the year 2016 on, media use is measured as time spend watching, reading or listening to news about politics and current affairs.

Fourth, media quality data relies on expert assessments, which can lead to distortion in evaluations. Experts can be affected by several factors such as the level of knowledge about the subject matter, understanding of the meaning of the item or scale, or the attentiveness to the task. However, expert surveys as a tool of measurement are evolving rapidly and scholars are providing strategies to minimize errors to enhance the validity and reliability of target measures (Coppedge et al., 2021).

Lastly, this study was the first attempt to use an index of quality measurements of the media system as a contextual factor to explain immigration attitudes. However, such measurement is not necessarily indicative of media content, thus further research would gain from examining the actual coverage on the immigration issue thereby testing for the effects of media content as a collective information environment on native's attitudes toward immigration.

All these limitations notwithstanding, the study provides evidence of the ethnic ranking of immigrants with important implications for the migration and communication scholarship. Most prominently, these findings imply that scholars should exercise caution in grouping all immigrants together for explaining immigration attitudes. Just as it is important to distinguish between immigration types (e. g., refugee vs. economic immigrants), it is paramount to address ethnic variation in studying intergroup relations. Although it is almost axiomatic to expect same ethnicity immigrants to be perceived more favorably than different ethnicity immigrants, it is staggering how little attention it has received from scholars studying immigration attitudes.

From a political communication perspective, these findings are telling as well.

They shed a light on how the information environment, that shapes the communication process about immigration, can further foster ethnic rankings by emphasizing group cues. This in turn can have implications on public mood (as a form of collective experience) as well as policy-making processes. Moreover, as the media play an important role in shaping public perception about immigration, the information environment has also implications on the integration process. As research by Alarian and Neureiter (2021) shows, while integration policies are effective for immigrant integration in the host society, it comes down to immigrant ethnicity as the primary driving force for immigration support and, ultimately, social cohesion.

Acknowledgements

Conflict of interests

The author declares no conflict of interests.

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Appendix

Table A1:   Summary of curve estimate results for predicting Internet access from 2002–2018

Country	Equation	R^2	Sig.	Constant	b1	b2	b3
AT	Linear	0.91	***	−22.47	0.32		
	Quadratic	0.99	***	12.58	−0.73	0.01	
	Cubic	0.99	***	−3.43	0.00	0.00	5.19E-05
BE	Linear	0.94	***	−24.19	0.35		
	Quadratic	0.99	***	13.02	−0.75	0.01	
	Cubic	0.99	***	−3.47	0.00	0.00	5.33E-05
CH	Linear	0.95	***	−40.04	0.49		
	Quadratic	0.98	***	41.20	−1.48	0.01	
	Cubic	0.98	***	1.63	0.00	−0.01	7.49E-05
CZ	Linear	0.91	***	−10.82	0.19		
	Quadratic	0.98	***	−3.26	−0.13	0.00	
	Cubic	1.00	***	−11.51	0.45	−0.01	7.22E-05
DE	Linear	0.93	***	−32.91	0.41		
	Quadratic	0.99	***	39.90	−1.45	0.01	
	Cubic	0.99	***	2.97	0.00	−0.01	8.03E-05
DK	Linear	0.87	***	−50.28	0.59		
	Quadratic	0.89	***	58.53	−1.96	0.02	
	Cubic	0.89	***	3.15	0.00	−0.01	8.93E-05
EE	Linear	0.95	***	−16.26	0.25		
	Quadratic	0.98	***	−3.38	−0.17	0.00	
	Cubic	0.98	***	−6.99	0.02	0.00	1.64E-05
ES	Linear	0.99	***	−14.48	0.25		
	Quadratic	1.00	***	−10.01	0.09	0.00	
	Cubic	1.00	***	−10.01	0.09	0.00	0
FI	Linear	0.89	***	−26.61	0.34		
	Quadratic	0.97	***	26.30	−1.08	0.01	
	Cubic	0.98	***	0.93	0.00	−0.01	6.76E-05

Continuation of table A1.

Country	Equation	R^2	Sig.	Constant	b1	b2	b3
FR	Linear	0.84	***	−18.37	0.27		
	Quadratic	0.98	***	14.08	−0.75	0.01	
	Cubic	0.99	***	−0.89	0.00	0.00	6.15E-05
GB	Linear	0.94	***	−27.68	0.35		
	Quadratic	0.98	***	24.42	−1.00	0.01	
	Cubic	0.99	***	−0.40	0.00	−0.01	5.78E-05
HU	Linear	0.95	***	−12.02	0.22		
	Quadratic	1.00	***	−4.32	−0.10	0.00	
	Cubic	1.00	***	−8.62	0.19	0.00	3.39E-05
IE	Linear	0.92	***	−20.50	0.30		
	Quadratic	0.98	***	10.75	−0.65	0.01	
	Cubic	0.98	***	−2.82	0.00	0.00	4.94E-05
NL	Linear	0.89	***	−56.28	0.63		
	Quadratic	0.97	***	228.31	−5.81	0.04	
	Cubic	0.98	***	58.70	0.00	−0.03	0
NO	Linear	0.79	***	−31.64	0.38		
	Quadratic	0.93	***	81.48	−2.44	0.02	
	Cubic	0.94	***	17.26	0.00	−0.01	0
PL	Linear	0.93	***	−13.89	0.24		
	Quadratic	0.99	***	−1.60	−0.22	0.00	
	Cubic	0.99	***	−14.85	0.53	−0.01	7.39E-05
PT	Linear	0.99	***	−14.70	0.28		
	Quadratic	1.00	***	−9.68	0.09	0.00	
	Cubic	1.00	***	−9.68	0.09	0.00	0
SE	Linear	0.83	***	−49.81	0.58		
	Quadratic	0.91	***	153.32	−4.25	0.03	
	Cubic	0.91	***	35.15	0.00	−0.02	0
SI	Linear	0.96	***	−24.33	0.36		
	Quadratic	0.98	***	−6.87	−0.16	0.00	
	Cubic	0.98	***	−6.87	−0.16	0.00	0

Note: Unstandardized B coefficients (B); *** = $p < .001$; ** = $p < .01$; * = $p < .05$; n.s. not significant.

Table A2:　*T*-test results comparing attitudes towards same ethnicity immigrant and different ethnicity immigrants over time

| Year | Immigration attitudes | Mean | N | SD | Paired t Test | | |
					t	df	Sig.
2002	Same ethnicity immigrants	2.74	29412	0.78	71.83	29411	***
	Different ethnicity immigrants	2.50	29412	0.81			
2004	Same ethnicity immigrants	2.75	31348	0.85	80.77	31347	***
	Different ethnicity immigrants	2.46	31348	0.87			
2006	Same ethnicity immigrants	2.77	29568	0.84	79.82	29567	***
	Different ethnicity immigrants	2.48	29568	0.87			
2008	Same ethnicity immigrants	2.78	29009	0.84	71.79	29008	***
	Different ethnicity immigrants	2.52	29009	0.86			
2010	Same ethnicity immigrants	2.76	30678	0.85	76.82	30677	***
	Different ethnicity immigrants	2.49	30678	0.86			
2012	Same ethnicity immigrants	2.80	31989	0.85	76.36	31988	***
	Different ethnicity immigrants	2.55	31989	0.87			
2014	Same ethnicity immigrants	2.85	29461	0.83	75.06	29460	***
	Different ethnicity immigrants	2.58	29461	0.87			
2016	Same ethnicity immigrants	2.87	28430	0.83	79.69	28429	***
	Different ethnicity immigrants	2.57	28430	0.89			
2018	Same ethnicity immigrants	2.91	28201	0.82	85.29	28200	***
	Different ethnicity immigrants	2.59	28201	0.89			

Note: Significance level *** $= p < .001$;　　** $= p < .01$;　　* $= p < .05$.