The contact hypothesis during the European refugee crisis: Relating quality and quantity of (in)direct intergroup contact to attitudes towards refugees

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Abstract: Research shows that direct and indirect intergroup contact reduces levels of prejudice towards immigrants. However, no research so far has explored the association of these different forms of contact with attitudes towards refugees. The present study analyses the relationship between the frequency and valence of direct intergroup contact with people with a migration background, the frequency of indirect contact with refugees through news consumption, and the perception of realistic and symbolic threat, with attitudes towards refugees among adults in four European countries (Belgium, France, Netherlands, Sweden). Data were collected in 2017 via online questionnaires (N = 6,000). Using structural equation modelling, findings indicate that interethnic contact is positively related to attitudes towards refugees. Moreover, the valence of direct contact is found to be more important in attitude formation than its frequency. Regarding indirect contact, exposure to news on refugees and public news consumption are positively related to attitudes, while commercial news consumption is negatively related to attitudes.

Keywords: contact hypothesis; direct intergroup contact; mass mediated contact; Europe; refugee attitudes; quality of contact

Introduction

Over the past decades, immigration has increased sharply in many European countries (Wilson-Daily, Kemmelmeier, & Prats, 2018). Nowadays, over 34 million immigrants live in the European Union which means that nearly 7% of its population is comprised of people born outside of the EU (Eurostat, 2016). In most countries, immigration is viewed as negative rather than as positive (Semyonov, Raijman, & Gorodzeisky, 2006) and in recent years there has been a surge of political parties who espouse xenophobic, anti-immigrant and racist messages (Wilson-Daily et al., 2018). However, not all immigrants are perceived equally negative. Depending on their ethnic origins, they experience varying degrees of prejudice (De Coninck, 2020; Dirksmeier, 2014). According to previous research, this prejudice can be modified by direct contact or mass-mediated (or indirect) contact with immigrants (Atwell Seate & Mastro, 2016; De Coninck, 2020; Dirksmeier, 2014).

Europe has always been a continent of migration, but the number of refugees who entered the EU peaked in 2015 and 2016 to the highest level since World War II (Chouliaraki & Zaborowski, 2017). In 2015, EU member states received over 1.3 million applications for international protection, which was more than twice the number of 2014 (Eurostat, 2018). Similarly, in 2016, more than 1.2 million asylum applicants were registered in the EU. In 2017, the number of applications (705,705) started to decline and this downward trend has continued since then (638,200 in 2018; Eurostat, 2019a). Several aspects of the refugee crisis – such as the reception and integration of this group – are quickly becoming defining features of the 21st century (Esses, Medianu, & Lawson, 2013).

Nonetheless, research on the association of diverse forms of contact (i.e., direct or mediated) with levels of prejudice towards refugees is still scarce. Previous studies have analysed the effect of direct contact (Ghosn, Braithwaite, & Chu, 2019; Kotzur, Schäfer, & Wagner, 2019; Turoy-Smith, Kane, & Pedersen, 2013) and mass-mediated contact (Schemer

& Meltzer, 2019) on attitudes towards refugees. However, to our knowledge, no research has investigated direct and indirect forms of contact, nor have they investigated both quantity and quality of contact simultaneously. Considering that refugees are increasingly portrayed as a threat to the host countries [e.g., by linking them to potential terrorist activities (Esses, Hamilton, & Gaucher, 2017; Nail, 2016)], studying the role of intergroup contact and feelings of threat are vital. Experts have argued that durable solutions, such as refugee resettlement in new host countries, are to be promoted since a return to their country of origin may not be possible due to "continued conflict, political instability, insecurity, loss of livelihood, and difficulty reclaiming land and property" (Esses et al., 2017, p. 79). Consequently, to facilitate integration into local societies, strategies to improve public attitudes towards refugees should be promoted (Esses et al., 2017).

Theoretical framework

The role of intergroup contact and threat frames

According to the contact hypothesis, prejudice can be modified by contact with individuals from other (ethnic) groups under certain conditions (Dirksmeier, 2014). This hypothesis, also known as the intergroup contact theory, was proposed by Allport (1954) and it has emerged as "a widely used framework in the study of intergroup relations and intergroup prejudice" (Broad, Gonzalez, & Ball-Rokeach, 2014, p. 49). It postulates that intergroup contact reduces prejudice between members of traditionally opposed racial groups (Ata, Bastian, & Lusher, 2009; Barlow et al., 2012). Consequently, individuals who have (direct) contact with immigrants or refugees should have more positive attitudes towards them than individuals who lack contact with these groups (Abrams, McGaughey, & Haghighat, 2018). Nonetheless, Allport proposed that intergroup contact would only be effective in reducing prejudice if it was optimal (Barlow et al., 2012). Four conditions characterize this optimal contact: a) equal

status between groups; b) common goals; c) intergroup cooperation; and d) the support of authority, law or custom (Allport, 1954). Equal status between groups can be interpreted in two ways: either both groups expect and perceive equal status within a situation or there must be equal status coming into a situation. It has been found that contact with out-group members of a lower status is negatively related to attitudes (Pettigrew, 1998). An example of the second condition, common goals, can be easily illustrated by way of team sports. Interracial sports teams need to work together to achieve a common goal, which – especially if the goal is attained – improves attitudes. This is related, but not exclusively tied to, intergroup cooperation – the third condition. This cooperation is also relevant in school or professional contexts, leading to positive attitude outcomes. The final condition (support from authority, law or custom) is also important, as the explicit support of intergroup contact from authorities improves attitudes, as shown in military, religious, and business institutions (Pettigrew, 1998).

This theoretical framework has been widely used for several decades to demonstrate that positive contact reduces intergroup anxiety and, as such, decreases prejudice towards out-group members (Techakesari et al., 2015). Subsequently, it has also been used for guiding interventions to reduce prejudice against minority groups (Ahmed, 2017; Pedersen & Hartley, 2015) and research has supported its effectiveness (Wagner, van Dick, Pettigrew, & Christ, 2003). Pettigrew and Tropp (2006) conducted a meta-analysis of over 500 studies and concluded that intergroup contact typically reduces prejudice amongst different groups. Moreover, their overview of the literature suggested that, although Allport´s optimal conditions lead to a greater reduction in prejudice, they are not essential. Studies with no claim to these key conditions have smaller, but still significant, effects. In the case of refugees, very few studies have analysed the effect of intergroup contact, but all of them

show that this contact can improve perception and attitudes toward refugees (Ghosn et al., 2019; Kotzur et al., 2019; Turoy-Smith et al., 2013).

On the other hand, research has confirmed the effectiveness of intergroup contact in diminishing prejudice. Ata et al. (2009) found that having a Muslim friend is related to reduced social distance to this group. In that regard, Pettigrew (2008) demonstrates that establishing affective ties with a member of an out-group may not only lead to more positive attitudes towards that specific out-group, but also towards other out-groups. The proportion of ethnic minority members in the population is also found to be linked to a reduction of prejudice (Wagner et al., 2016). Similarly, adolescents who attend schools with a higher proportion of students with a migration background show less xenophobia and more positive attitudes towards immigrants than adolescents who attend schools with a lower proportion of students with a migration background (Wilson-Daily et al., 2018). This leads us to a first hypothesis:

H1: Having direct intergroup contact with people with a migration background is positively related to attitudes towards refugees.

In contrast with the contact hypothesis, group threat theory proposes that intergroup contact promotes conflict because of the perceived threat between groups (Jolly & DiGiusto, 2014). These threats can be real or perceived, and whether groups have direct contact with one another or not, the threat can have real consequences for all those involved (Stephan, Ybarra, & Morrison 2009).

Moreover, according to Stephan et al. (2009), two types of threat are currently identified: realistic (which could be economic or crime-related) and symbolic (which could be cultural or religious) threat. Negative stereotypes, first understood as a separate threat, are now believed to be a subset of both types, where characteristics of the outgroup might have a negative (realistic or symbolic) effect on the ingroup. Both realistic and symbolic threats can

take place at group and individual levels. Regarding realistic group threats, they relate to the competition for power, resources and general welfare (Stephan et al. 2009). As groups compete for these resources, they view the outgroup as a competitor, which stimulates negative prejudice. For instance, von Hermanni and Neumann (2019) found that crime, economic and fiscal concerns have a negative impact on the acceptance of refugees seeking asylum. In general, this prejudice is more pronounced among individuals in more precarious socio-economic positions, such as people with fewer skills or less education (Fetzer 2012; Lancee and Pardos-Prado 2013). Symbolic threat refers to the fear that newcomers will challenge the in-group's religion, values, belief systems, ideology or worldview (Stephan et al. 2009). This threat is seen as real or perceived harm inflicted by immigrants or refugees with differing values, norms, and beliefs, and is a major source of prejudice (Ata et al., 2009; Constantin & Cuadrado, 2019; Riek, Mania, & Gaertner, 2006; Schlueter & Wagner, 2008; Stephan, Ybarra, Martnez, Schwarzwald, & Tur-Kaspa, 1998; Zárate, Garcia, Garza, & Hitlan, 2004).

This suggests that the presence of a larger immigrant population leads to higher levels of competition and, consequently, higher levels of prejudice (Ha, 2010), which could mean that people from regions with a larger immigrant population exhibit more perceived group threat than people from regions with less immigrants (Schlueter & Wagner, 2008). In turn, this threat could result in more negative attitudes toward immigrants (Stephan, Renfro, Esses, Stephan, & Martin, 2005; Ward & Masgoret, 2006). Thus, as it was proved in a meta-analysis (Riek et al., 2006), there is a relationship between both types of threat and negative attitudes towards the outgroup.

In line with this literature, we develop the following hypotheses:

H2: People with greater feelings of threat hold more negative attitudes towards refugees than people with low feelings of threat.

H3: Feelings of threat mediate the relationship between intergroup contact and attitudes towards refugees.

Nevertheless, the controversy remains as other studies have presented opposing evidence suggesting that those "who do not live among the out-group are more likely to hold negative views of them and to perceive them as economic competition" (Jolly & DiGiusto, 2014, p. 470). That is, in a country with immigrants, people from cities or neighbourhoods with a large local immigrant population have shown lower levels of prejudice than people from cities or neighbourhoods of the same country with less or no immigrant population (Dirksmeier, 2014; Jolly & DiGiusto, 2014; Semyonov & Glikman, 2009; Wagner et al., 2016). This evidence is consistent with the statements of the contact hypothesis: there ought to be lower rates of prejudice in big cities than in rural areas, as cities receive more immigrants and its citizens therefore experience more direct intergroup contact (Dirksmeier, 2014). In fact, recent studies have shown that positive interethnic friendships and social interactions in neighbourhoods with ethnic diversity can indeed reduce prejudice (McKenna et al., 2018).

Moreover, studies have generally not differentiated between the quantity (i.e., the frequency of contact) and valence or quality (i.e., negative or positive contact experience) of intergroup contact (Ahmed, 2017). Therefore, the potential impact of negative contact on prejudice remains largely unexplored (Barlow et al., 2012; Pettigrew, 2008; Pettigrew, Tropp, Wagner, & Christ, 2011; Techakesari et al., 2015), although it could explain why citizens in multicultural societies are increasingly exhibiting prejudice. If we do not consider the effects of the quality of the contact, "part of the picture is absent, and this poses a serious limitation to the knowledge gained from intergroup contact research and its applicability to real life settings" (Graf, Paolini, & Rubin, 2014, p. 537).

Emerging research shows that negative contact has a stronger influence on prejudice than positive contact (Dovidio, Love, Schellhaas, & Hewstone, 2017; Hayward, Tropp, Hornsey, & Barlow, 2017; Techakesari et al., 2015). Thus, intergroup contact does not necessarily reduce prejudice, as "it is the richness of contact that matters" (Ahmed, 2017, p. 548). For example, a study from Dirksmeier (2014) found that prejudice was only slightly lower in large cities and that prejudice depended on the quality of contact. That is, only voluntary contacts and friendships reduced prejudice. Consequently, spatial proximity can promote intergroup contact, but it is crucial that such contact is positive to reduce prejudice. Similarly, the study by Turoy-Smith et al. (2013) showed that the quality of contact overrides the effect of the quantity of contact on prejudice towards refugees. Thus, it remains crucial to consider the valence of the contact. In fact, it has been shown that negative intergroup contact has a larger effect on prejudice and avoidance than positive contact does (Barlow et al., 2012; Freitag & Kijewski, 2017; Hayward et al., 2017). Negative intergroup contact may be more powerful because it is more distinctive, memorable or surprising than positive contact (Hayward et al., 2017). Thus, while negative contact is more influential, positive contact is more common (Barlow et al., 2012; Graf et al., 2014; Laurence & Bentley, 2018). In line with this, we develop the following hypothesis:

H4: Evaluating intergroup contact positively is related to lower feelings of threat, and, as a consequence, more positive attitudes towards refugees.

H5: The effect of the valence of intergroup contact outweighs that of the frequency of intergroup contact.

In addition, and with reference to the impact of the frequency of contact, Islam and Hewstone (1993) found that more frequent contact with the out-group was associated with reduced intergroup anxiety. Similarly, another study concluded that "individuals who report more frequent positive/negative encounters report significantly better/worse attitudes towards

immigrants compared to individuals with less contact" (Laurence & Bentley, 2018, p. 95). In view of the above, studies testing the contact hypothesis should consider the frequency and valence of the intergroup contact. Although many studies indicate that direct intergroup contact reduces prejudice, others suggest that the effect of contact is selective (Denis, 2015; Jackman & Crane, 1986).

Indirect contact and parasocial contact hypotheses

Apart from direct intergroup contact, research has also addressed forms of indirect contact, such as extended contact, imagined contact, computer-mediated contact and parasocial contact (Dovidio et al., 2017; Harwood & Joyce, 2012; Hewstone & Swart, 2011). First, the extended contact hypothesis was introduced by Wright, Aron, McLaughlin-Volpe and Ropp (1997) and it refers to knowledge of positive intergroup contact involving in-group people, such as friends (Harwood & Joyce, 2012). Research has proven that knowing about or observing intergroup friendships reduces prejudice (Hewstone & Swart, 2011; Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014). In the specific case of refugees, an experiment by Cameron, Rutland, Brown and Douch (2006) also demonstrated the effectiveness of extended contact for reducing negative attitudes toward refugees among children. Furthermore, imagined contact refers to imagining positive contact with out-group members (Harwood & Joyce, 2012) which has also been shown to reduce intergroup bias and prejudice (Hewstone & Swart, 2011), and promote identification with a stigmatized immigrant (Igartua, Wojcieszak, Cachón-Ramón, & Guerrero-Martín, 2017). Computer-mediated contact "enables contact among individuals who otherwise would not have the opportunity to meet in person" (Dovidio et al., 2017, p. 608-609). Previous research has also assessed the impact of computer-mediated contact on reducing prejudice (Cao & Lin, 2017; Kim & Wojcieszak, 2018).

Finally, according to the parasocial or mediated contact hypothesis[1], mass media can offer a vicarious form of intergroup contact (Schiappa, Gregg, & Hewes, 2005). That is, through media consumption such as news on immigration or movies with immigrant characters, individuals can also learn about out-groups (Abrams et al., 2018). Therefore, people who have limited opportunities for real-life contact with out-group members may use mass media as a source of information that influences their attitude towards out-groups. Indeed, media seem to be primary information source about the subject of asylum seekers and refugees (Gregurović, Radeljak Kaufmann, Župarić-Iljić, & Dujmović, 2019).

Media depictions of immigrants and refugees are typically negative (Igartua, Barrios, Ortega, & Frutos, 2014; Visintin, Voci, Pagotto, & Hewstone, 2017), as they generally characterize immigrants as physical, economic, or cultural threats to other groups (Atwell Seate & Mastro, 2016; Jacobs, Meeusen, & d'Haenens, 2016) and perpetuate stereotypical images of them (Ahmed, 2017). A refugee is usually represented as an "ambiguous figure suspended between victimhood and malevolence" (Chouliaraki & Zaborowski, 2017, p. 616). Empirical evidence shows that sustained exposure to these characterizations of ethnic groups influences perceptions among the audience (Atwell Seate & Mastro, 2016). In line with this, we expect that watching news on refugees stimulates negative attitudes towards refugees (*H6*). Not all media represent these groups in the same way, however. Previous studies find that public and commercial media differ in their representations. As defined by Jacobs et al.

[1] In this study we use the term of parasocial contact for referring to intergroup contact via mass media. As Park (2012) pointed in her review of studies on intergroup contact via media consumption, there is "no clear consensus on what to call the concept, nor is there sufficient articulation regarding what the concept even constitutes" (p.137). For instance, the terms parasocial contact (e.g., Schiappa et al., 2005), mediated intergroup contact (e.g., Ortiz & Harwood, 2007) or vicarious contact (e.g., Joyce & Harwood, 2014) have been used by scholars.

(2016, p. 644), “public broadcasters are usually at least partly state-funded, liberating them from commercial pressures and dependence upon advertising revenues. In return for this privilege, they are mandated to deliver public services, while adhering to democratic principles and values”, while commercial media “do not have similar obligations to serve the public interest and are more market-oriented, increasing their dependence on profit and audience maximization, hence, having less incentives to report on immigration in a balanced manner” (2016, p. 644). Public broadcasters in Western Europe generally hold strong positions in their national media markets, while commercial media are becoming increasingly important (Bardoel & d’Haenens, 2008). Public media broadcasters tend to portray minority groups more positively than commercial broadcasters (Jacobs et al., 2016). Consequently, media consumption patterns could explain why people have negative feelings about groups of whom they have little knowledge and with whom they have little contact (Abrams et al., 2018). With these considerations in mind, we develop the following hypotheses:

H7a: Watching the news on a public television network is negatively associated with feelings of threat, and – as a consequence, positively related to attitudes towards refugees.

H7b: Watching the news on a commercial television network is positively associated with feelings of threat, and – as a consequence, negatively related to attitudes towards refugees.

Although research has shown that both direct and mass-mediated contact are related to prejudice, research investigating these types of contact simultaneously is scarce (Visintin et al., 2017). Recent studies show that those who have direct positive contact with the out-group are less sensitive to negative media content (Ahmed, 2017), that news consumption predicts negative attitudes (Abrams et al., 2018), and that the beneficial effects of positive direct contact are counteracted by negative mass-mediated contact (Pagotto & Voci, 2013). Nevertheless, more research in this field is required.

Data and methodology

Data

We distributed an online questionnaire to adults aged 18 to 65 in Belgium, Sweden, France, and the Netherlands, in September and October of 2017. Data collection lasted until a sample size of 6,000 respondents (1,500 per country) was reached. We opted for an online questionnaire because of its (cost) efficiency, and country selection was based on convenience: the Belgian polling agency we worked with has a strong presence in the four countries under study, which meant we could limit the cost of the study and still receive a large dataset. The polling agency drew a nonrandom heterogeneous purposive sample out of its available panels, with heterogeneity in terms of age and gender. The response rate was about 35 per cent and responses were weighted by gender and age to ensure that the data were representative for these characteristics within each country.[2] Respondents were contacted through e-mail with the request to cooperate in a study. No specific subject was specified in the e-mail to respondents to avoid priming. The survey itself was distributed via the polling agency's own survey tool, and in the official language of the country or region (either Dutch, French, or Swedish) that respondents resided in. Translations of the survey were carried out by professional translators, ensuring that the terminology used in the questions is considered 'everyday language' by the respondents. Respondents were unable to skip questions, but some did have a 'no answer'-option. However, the items on attitudes towards refugees, which will be expanded upon in the following section, did not. Each question in the survey was presented on a different page, and respondents did not have the option to return to previous questions and change their answer. Approval for this study was obtained from the Social and Societal Ethics Committee of KU Leuven (case number G-

[2] For more information on the dataset, please consult De Coninck, d'Haenens, and Joris (2019).

2017 07 854).

We briefly review some contextual characteristics in the four countries under study (Table 1). All countries have a higher than (EU28) average GDP per capita, although France's is far lower than that of the other countries. In terms of unemployment, France is notable for its high ratio, while the Netherlands has the lowest rate. With 304,546 (registered) refugees in 2016, France has accepted more refugees than the other four countries. However, in terms of relative presence of refugees, Sweden far outperforms the other countries: it has received 23 refugees per 1000 inhabitants, while the Netherlands – second in this ranking – has received 6. In terms of MIPEX-scores[3], we note that Sweden developed the most favourable migration-integration policies out of the four countries in our dataset (and the 38 countries included in this index) (MIPEX, 2015), while France is found to hold the least favourable policies (De Coninck, Ogan, & d'Haenens, 2020). Although we do note some country differences, Belgium and the Netherlands have similar scores on most indicators, while Sweden is different mostly in terms of refugee reception and France in terms of economic indicators.

[3] The MIPEX (Migrant Integration Policy Index) is a tool created to measure 167 policy indicators related to migrant integration in all European Union countries. The scores range from 0 (critically unfavorable policies) to 100 (best practice).

Table 1. Descriptive overview of country-level characteristics

	Belgium	France	Netherlands	Sweden
GDP per capita	118	104	128	123
Unemployment ratio	7.2	10.3	5.4	6.4
Total number of refugees	42,168	304,546	101,744	230,164
Refugees per 1000 inhabitants	3.7	4.6	6.0	23.0
MIPEX-score	67	54	60	78

Note: GDP per capita is expressed in relation to the European Union (EU28) average set to equal 100. If the index of a country is higher than 100, this country's level of GDP per head is higher than the EU average and vice versa (Eurostat, 2018b).

Measures

Attitudes towards refugees

To measure public opinion on refugees, we adapted a scale previously used in rotating modules of the European Social Survey. This scale was created to measure migration attitudes and was included in Round 1 (2002) and Round 7 (2014). The original scale consists of six items asking which groups of immigrants should be allowed to come and live in the country (European Social Survey, 2002, 2014). Because we want to measure attitudes on refugees, we presented the same scale but switched out the word ‘immigrant’ for ‘refugee’. Answer categories ranged from 1 (allow none) to 4 (allow many). We presented the scale in its original form and added an extra item concerning refugees from Muslim countries. The reason for the inclusion of this item lies in the fact that most newcomers entering Europe in the refugee crisis originate from Syria, Iraq, or Afghanistan – predominantly Muslim countries (Pew Research Center, 2017). Before completing this block of items, we presented respondents with the UN-definition of refugees so that respondents across all four countries would have a uniform understanding of this group when completing the questionnaire.

Additional information regarding this scale (exact wording, internal consistency, item correlations) can be found in Appendix A.

Intergroup contact

Direct intergroup contact was measured by asking if respondents have any interethnic friendships (1 = no, 2 = some, 3 = many), and how often they have interethnic random contact on the street, at work, in shops… (six categories, ranging from 1 = never to 6 = every day). Important to emphasize is that these measures do not assess direct contact with refugees only, but rather measure direct contact with anyone with a migration background. The valence of direct contact was measured by an 11-point scale, with 1 indicating a negative evaluation of intergroup contact, and 11 indicating a positive evaluation (European Social Survey, 2014).

Mass mediated (or indirect) intergroup contact was measured by gauging the frequency with which respondents consumed news on refugees over the past year, and through their general television news consumption. The consumption of news on refugees was measured by the following question: 'How often did you come across news on refugees in the past year?', with answer categories ranging from 1 (never) to 6 (very often). As for general television news consumption, we differentiated this measure by looking at consumption of public service broadcasting and commercial broadcasting separately, given the literature indicating that refugees are framed differently on each type of broadcaster (Jacobs et al., 2016). Respondents were asked to indicate how often they consumed news on each broadcaster in the past month, with answer options ranging from 0 (never) to 7 (every day).

Group threat

Realistic threat was measured via the following four items: 1) 'Would you say that refugees who come to live here generally take jobs away from workers in [country], or generally help to create new jobs?'; 2) 'Would you say it is generally bad or good for [country]'s economy that refugees from other countries come to live here?'; 3) 'Most refugees who come to live here work and pay taxes. They also use health and welfare services. On balance, do you think refugees who come here take out more than they put in or put in more than they take out?'; and 4) 'Have the country's crime problems increased or decreased by refugees coming to live here from other countries?'. The items were answered on an 11-point scale, with the high end of the scale indicating high threat perception. The mean of these items was calculated to obtain a single indicator for realistic threat. To measure symbolic threat, we used the following item: 'Would you say that [country]'s cultural life is generally undermined or enriched by refugees coming to live here from other countries?' Answer options for this item ranged from 0 (low threat perception) to 10 (high threat perception).

Sociodemographic indicators

Data on gender (1 = male, 2 = female), educational attainment (1 = uneducated, 2 = primary education, 3 = lower secondary education, 4 = higher secondary education, 5 = higher non-university education, 6 = university education), birth year, migration background (0 = no migration background, 1 = migration background), and residential characteristics (1 = urban environment, 2 = intermediate environment, 3 = rural environment) were also collected. As for migration background, we asked respondents to indicate the country of birth of their parents and grandparents. If both parents, one parent and at least two grandparents, or no parents but all grandparents were born outside of the country the respondent currently resides in, they are considered to have a migration background. To gauge whether respondents live in a predominantly urban, rural, or intermediate area, we asked for the postal code of

respondents' place of residence. We recoded these to correspond to arrondissements/counties from the NUTS3-typology, which is a widely used standard for coding subdivisions of countries (Eurostat, 2018). Respondents who filled in a non-existent postal code (5.1%) were classified as missing.

Table 2. Descriptive overview of the sample by country and in total (n = 6,000)

	Belgium	France	Netherlands	Sweden	Total
Age	42.94 (12.54)	43.55 (13.06)	45.59 (13.88)	41.40 (13.20)	43.37 (13.26)
Gender	1.50 (0.50)	1.51 (0.50)	1.51 (0.50)	1.50 (0.50)	1.50 (.50)
Educational attainment	4.52 (1.12)	4.56 (1.12)	3.99 (1.15)	4.28 (1.08)	4.34 (1.14)
Migration background	0.09 (0.29)	0.17 (0.38)	0.10 (0.31)	0.26 (0.44)	0.16 (0.36)
Residential characteristics	1.41 (0.63)	1.97 (0.79)	1.35 (0.50)	2.58 (0.50)	1.84 (0.80)
Attitudes on refugees	2.54 (0.83)	2.36 (0.88)	2.51 (0.78)	2.72 (0.85)	2.53 (0.85)
Interethnic friendships	1.82 (0.73)	2.00 (0.76)	1.81 (0.72)	2.09 (0.75)	1.93 (0.75)
Interethnic random contact	4.97 (1.92)	4.42 (2.14)	4.47 (1.95)	5.36 (1.87)	4.81 (2.01)
Valence of direct contact	7.37 (2.12)	7.26 (2.40)	7.71 (1.98)	7.15 (2.47)	7.37 (2.26)
Public television news	4.28 (2.69)	2.90 (2.46)	4.94 (2.69)	4.27 (2.60)	4.10 (2.71)
Commercial television news	3.78 (2.76)	3.64 (2.72)	4.42 (2.64)	4.17 (2.49)	4.00 (2.67)
News on refugees	4.52 (1.27)	3.98 (1.33)	3.96 (1.28)	4.55 (1.32)	4.25 (1.33)
Realistic threat	7.08 (2.03)	7.17 (2.25)	6.77 (1.94)	6.66 (2.47)	6.92 (2.19)
Symbolic threat	6.43 (2.71)	6.97 (2.94)	6.22 (2.63)	5.74 (3.10)	6.34 (2.89)

Note. Mean and standard deviation (between brackets) presented. Chi-squared tests indicate differences in educational attainment ($X^2 = 1310.3$, $p = 0.00$), migration background ($X^2 = 225.38$, $p =$

0.00), residential characteristics (X^2 = 2275.82, p = 0.00), and age (X^2 = 455.11, p = 0.00) between countries. Gender (X^2 = .79, p = 0.85) is not associated with country of residence.

Data analysis

As is shown in Table 2, the data were clearly nested within countries thereby requiring multilevel modelling. Before proceeding with this analysis, it was prudent to ask if MLM was required with the given data. After all, "nested datasets do not automatically require multilevel modelling. If there is no variation in response variable scores across level-2 units ... the data can be analyzed using OLS multiple regression" (Peugh, 2010, p. 88). To answer this question, we used the mean score on attitudes towards refugees as the dependent variable to calculate the intra-class correlation coefficient (ICC). The ICC can be characterised as the proportion of attitude score variation across countries (level 2-units) and as the expected correlation between the attitude scores of two respondents (level 1-units) from the same country (Peugh, 2010). A high ICC value indicates that a large proportion of variance in attitude scores can be explained by mean attitude score differences between countries. For more information on the calculation of the ICC, see Peugh (2010). We found an ICC of 0.03, indicating that only 3% of variance in attitude scores could be explained by mean differences between countries. Previous literature that applied MLM found ICC values from .05 to .20 to be most common in MLM applications in the social sciences (Muthén, 1994; Spybrook, Raudenbush, Liu, Congdon, & Martinez, 2008). Given the low ICC value, this measure suggests that MLM was not the most appropriate analysis to perform with the current data.

We conducted two hierarchical linear regressions and a structural equation model (SEM) to investigate the relationship between direct and mass-mediated intergroup contact, group threat, and attitudes towards refugees in the four countries under study. The regressions tested whether direct and mass-mediated intergroup contact was associated with respondents' level of perceived realistic and symbolic threat. With realistic and symbolic threat as the

dependent variables, a three-step approach was adopted: first, sociodemographic characteristics and fixed country effects were added. Subsequently, we added measures of direct intergroup contact (interethnic friends, random contact, and valence), after which measures of indirect of mass-mediated contact (news media consumption, refugee news consumption) were added.

The SEM tested the association of the quality and quantity of direct and mass-mediated intergroup contact and perceived realistic and symbolic threat on attitudes towards refugees. Measures on interethnic friends (1 = has some or many friends with migration background), gender (1 = female), migration background (1 = respondent has migration background), and residential characteristics were recoded to dummies so that they could be included in the model. Correlations between the variables of the model were presented in Table 3.

Table 3. Pearson correlations

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Attitudes towards refugees	-								
2. Ethnic friends	.24**	-							
3. Random contact	.25**	.34**	-						
4. Valence of contact	.44**	.30**	.22**	-					
5. Television – public	.09**	ns	.05**	.10**	-				
6. Television – commercial	-.13**	ns	-.04**	ns	.28**	-			
7. News on refugees	.10**	.10**	.26**	.06**	.21**	.13**	-		
8. Realistic threat	-.60**	-.23**	-.16**	-.49**	-.12**	.12**	ns	-	
9. Symbolic threat	-.58**	-.25**	-.11**	-.46**	-.09**	.12**	.09**	.78**	-

Note. **: $p < 0.01$. ns = not significant.

Results

The results in Table 4 indicate that direct and indirect intergroup contact play a large role in the development of perceived threat in the countries under study. Having some or many friends with a migration background decreased feelings of realistic and symbolic threat, while having random intergroup contact on the street was not strongly related to either threat type – especially after controlling for indirect contact. The valence of intergroup contact was strongly associated with perceived threat: standardized betas of valence in the analyses of realistic and symbolic threat far outweighed those of any other indicators of direct contact (*H5*), which adds to the literature on the role of the valence of direct contact. Due to the limited number of studies in which both the frequency and valence of direct contact were included (Graf et al., 2014), these findings provided an important contribution to this field. As for the direction of this association, it was clear that evaluating intergroup contact positively was related to less feelings of threat (*H4*). In line with Ahmed's (2017) findings, we confirmed that it is the 'richness' of the contact that matters, rather than the contact itself. The large role that direct contact – and in that regard, mostly valence of direct contact – played in threat development is also evidenced by the additional 22% and 24% of explained variance of respectively realistic and symbolic threat upon adding these indicators to the analysis.

Measures of indirect contact were also related to feelings of threat. Although the statistical added value of these measures was somewhat limited (about 2% of additional explained variance on top of direct contact), it could not be denied that they were associated with attitudes even after controlling for direct intergroup contact. Watching news on public broadcasters was associated with less feelings of threat, while watching news on commercial networks was associated with greater feelings of threat (*H7a, H7b*). We expected that watching news on refugees would be positively associated with threat, due to the often-

negative framing of refugees as threatening our way of life, or an economic and social burden on society (Jacobs et al., 2016), and our findings supported this claim (*H6*).

Table 4. Hierarchical linear regressions with realistic threat and symbolic threat as outcome variables and standardized betas of predictors

	Realistic threat			Symbolic threat		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Age	.07***	.07***	.09***	ns	.03*	.04**
Gender (ref: Male)						
Female	ns	ns	ns	-.05**	-.03*	-.04**
Educational attainment	-.17***	-.12***	-.11***	-.17***	-.13***	-.11***
Migration background	-.07***	-.04**	-.04**	-.04**	ns	ns
Residential characteristics (ref: Urban)						
Intermediate	.03*	.03*	ns	ns	ns	ns
Rural	ns	ns	ns	ns	ns	ns
Country of residence (ref: Belgium)						
France	ns	ns	ns	.08***	.07***	.06***
Netherlands	-.10***	-.05***	-.03*	-.08***	-.03*	ns
Sweden	-.10***	-.11***	-.11***	-.14***	-.15***	-.15***
Direct intergroup contact						
Direct contact - friends		-.07***	-.07***		-.04**	-.04**
Direct contact - random		.04**	ns		ns	ns
Valence of contact		-.45***	-.44***		-.48***	-.47***
Indirect intergroup contact						
Public television news			-.11***			-.11***
Commercial television news			.09***			.10***
News on refugees			.12***			.08***
Adjusted R^2	.05	.27	.29	.06	.30	.32

Note. *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$. ns = not significant.

On a final note on the role of the socio-demographic characteristics: we found that age and educational attainment were related to threat in Europe, with younger respondents and highly educated individuals experiencing less realistic and symbolic threat than older respondents and lower educated individuals, in line with the literature (De Coninck et al., 2018; Hainmueller & Hopkins, 2014). Having a migration background was negatively associated with realistic threat, while results on gender indicate that women experienced less symbolic threat than men. The residential characteristics of respondents were not related to threat, while country fixed effects indicated that the French experienced more symbolic threat than the Belgians, and the Dutch and Swedes experienced less realistic and symbolic threat than the Belgians.

Results shown in Figure 1 indicate that attitudes towards refugees were significantly associated with intergroup contact and feelings of threat. When we considered the role of direct intergroup contact, we found that direct contact through random interactions was positively associated with attitudes, which is in line with the contact hypothesis (*H1*): intergroup contact reduced prejudice between members of traditionally opposed racial groups (Abrams et al., 2018; Ata et al., 2009; Barlow et al., 2012). The association between contact with friends and attitudes was not significant, which mirrored the results shown in Table 3. The valence of intergroup contact was again important, as it positively related to attitudes towards refugees (*H4*). Its effect was – again – larger than that of the frequency contact measures, which was in line with our expectations (*H5*).

Mass-mediated or indirect intergroup contact was also significantly related to attitudes towards refugees, although its effect sizes are much smaller than those of the valence of direct contact. Watching public television news was positively associated with attitudes towards refugees, while watching commercial television news was negatively associated with these attitudes (*H7a, H7b*). The direction of these associations was in line with our findings

on the association of mass-mediated contact with feelings of threat. Watching news on refugees was positively associated with attitudes, which mirrored the findings on the role of refugee news consumption and threat. This provided further evidence that we should reflect on this type of news consumption from the perspective of the contact hypothesis rather than from threat theory, despite the negative frames with which refugees are often portrayed in news media. By being confronted with news stories about refugees – regardless of the frames used –, people developed more positive attitudes towards this outgroup (*H6*).

High threat perceptions were strongly associated with negative attitudes towards refugees, in line with group threat theory which suggests that these feelings, whether they are 'realistic' or 'symbolic', stimulated negative prejudice toward newcomers (Stephan et al., 2009). We found that both measures were negatively related to attitudes – as expected (*H2*) –, with little difference between both types of threat. Including perceptions of threat in the analysis also mediated several associations. Most importantly, the relationship between having interethnic friendships and attitudes was fully mediated by including threat in the analysis, while the relationship between valence of contact and attitudes was also mediated by threat (*H3*).

Finally, we also found that age and educational attainment were related to attitudes as previous studies indicated they would: younger and highly educated individuals held more positive attitudes towards refugees than older respondents and lower educated individuals (De Coninck et al., 2018). These results were also in line with the earlier findings on threat perceptions (see Table 3). Furthermore, women held somewhat more positive attitudes than men (De Coninck et al., 2018; Hainmueller & Hopkins, 2014). As for country differences, we found that the French held more negative attitudes than Belgians, while Swedes held more positive attitudes than Belgians.

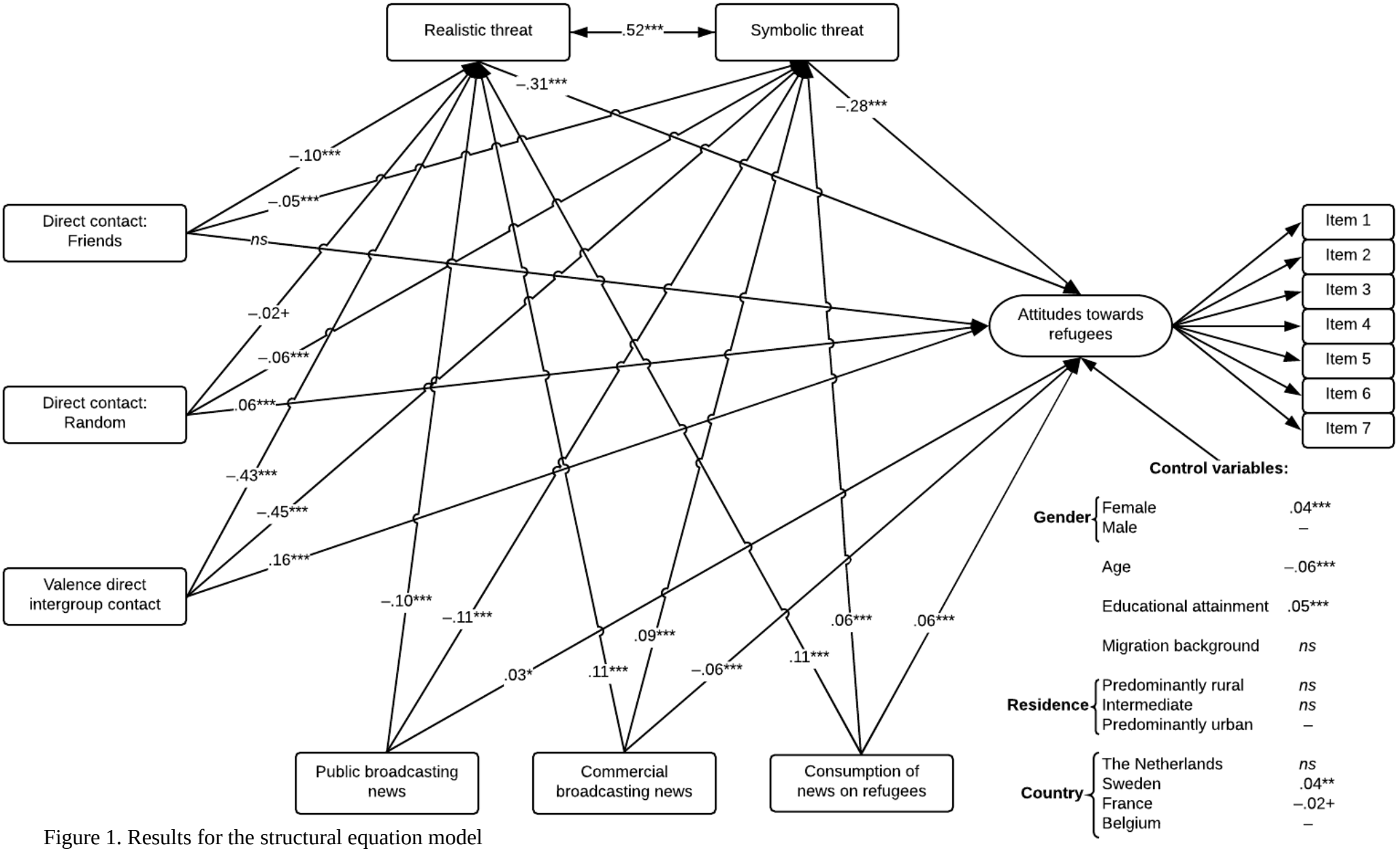

Figure 1. Results for the structural equation model

Note. +: p < 0.10; *: p < 0.05; **: p < 0.01; ***: p < 0.001. ns = not significant. To consult the table version of this SEM, see Appendix B. Goodness of Fit index = .96; Non normed fit index = .93; Comparative Fix Index = .97; RMSEA = .06; SRMR = .04.

Discussion

In recent years, refugee flows into Europe have taken on proportions the likes of which have not been seen since World War II. Coupled with a sharp increase of immigrants into several European countries over the past few decades (Wilson-Daily, Kemmelmeier, & Prats, 2018), governments are under increasing pressure to adequately cope with these many newcomers. Public opinion on these groups is also found to be increasingly polarized (Leeper, 2014). A key aspect in improving relations between natives and newcomers is intergroup contact, as theorized by Gordon Allport (1954). Although this framework has been tested several times throughout the 20th and 21st centuries, we did not come across recent studies that investigated the association of diverse forms of contact (i.e., direct or mediated) and the valence of contact with levels of prejudice towards refugees.

The results confirm that the contact hypothesis is highly relevant in the context of contemporary attitudes formation towards refugees in 2017 in the four Western European countries under study. Direct intergroup contact with people with a migration background through random interactions is positively related to attitudes but not related to threat, while friendships with people with a migration background do not directly relate to attitudes but are negatively related to threat. This disjunction between contact with friends and random contact is also apparent in the literature, as several studies cite an important association between having immigration friends with lower feelings of threat from Muslims or ethnic minority members (Ata et al., 2009; Pettigrew, 2008), while there is mixed evidence for the association of random contact. Some studies find that it reduces prejudice, in line with the contact hypothesis (Wagner et al., 2016), while others find that the increased presence of minority group members incites feelings of intergroup conflict, in line with conflict theory (Jolly & DiGiusto, 2014).

But, following previous studies from Ahmed (2017) and Dirksmeier (2014), we also note that the valence of intergroup contact is far more important than the frequency of this contact in shaping attitudes. As one of the first studies in this field to combine both frequency and valence measures of intergroup contact in the context of the 2015 refugee crisis in Europe, it is notable that the importance of the evaluation of intergroup experiences outweighs the importance of their frequency. Unfavourable structural conditions (such as the disproportionately large presence of refugees in cities) may provoke that, although overt prejudice based on categorizations of race or ethnicity decreases due to intergroup contact, feelings of superiority over out-groups based on socioeconomic differences continue to exist (Denis, 2015).

In terms of indirect (or mass-mediated) contact, we found that not only news media consumption on public and commercial broadcasters, but also the specific consumption of news on refugees, is associated with attitudes. The split between public and commercial networks in relation to attitudes is in line with Jacobs et al. (2016) who found that different broadcasters use different frames to portray refugees: public broadcasters use more frames that emphasize humanitarian aspects and place refugees in a victim frame, while commercial networks use more negative frames that portray refugees as posing a threat to the host societies (Jacobs et al., 2016). The fact that watching news on refugees positively relates to attitudes, is interesting. This finding supports the idea that the contact hypothesis is relevant even outside of direct intergroup relations, and that while different media content may contribute to differential attitudinal outcomes, indirect or mass-mediated contact with refugees generally stimulates positive feelings towards this group. Especially in times of increased social media consumption, it is interesting to note that consuming different media outlets is associated with different attitudes.

The findings of this study have implications for policymakers, news broadcasters, and scholars. The fact that various types of direct intergroup contact and their evaluation are strongly related to attitudes is a sign that policymakers should stimulate (positive) intergroup contact. Although our findings indicate few country differences, this is not surprising. Most of the countries in this study are similar in terms of refugee reception, economic situation, and integration policy. However, it may prove more interesting to look at the sub-national level in this context. Many local initiatives exist that help to incorporate refugees into the fabric of local society in a positive way. For example, Doomernik and Ardon (2018) find that is it mainly cities which drive the successful integration of refugees, since most of the refugee arrivals go to cities to seek employment and housing or to reconnect with family or friends. Furthermore, as stated by these authors:

> "In most if not all policy documents, statements and initiatives, cities and city networks emphasize and ask recognition for their importance in the migration field. Migrants come to cities, and cities have to take care for migrants, and do so when no other institution is able to" (Doomernik & Ardon, 2018, p. 93).

Stimulating direct intergroup contact – not necessarily with refugees, but with anyone with a migration background – could contribute to improving attitudes towards refugees. As for news media broadcasters, our results indicate that there are differential associations of media consumption with attitudes, in line with the literature on this subject (Jacobs et al., 2016). Whether this means the different framing of refugees by different news media affects attitudes, or people with different attitudes gravitate towards media which corresponds to their preconceived notions, is an open question. Finally, our study also adds to the academic literature on this subject in a valuable way. Most studies that consider the role of direct contact in their theoretical frame focus on the effect of either the frequency or valence of contact on attitudes or perceptions of threat. While both types are valuable measures of

intergroup contact, our study has made it clear that a combination of the two is indispensable when reviewing the role of contact on intergroup attitudes. With one or the other, an important part of the story on intergroup contact is lost.

Limitations

Although this study fills important gaps in the literature on intergroup contact, some limitations must be noted. Items on attitudes towards refugees may be perceived as sensitive questions and could therefore suffer from social desirability reporting. Furthermore, it is important not to oversimplify the interpretation of our results due to the large sample size of this study. Despite the significant associations found, several indicators in the regressions and SEM have very small beta values and their actual association with threat and attitudes is therefore limited. We must also be mindful of the potential causal link between some indicators in this study. For example, someone who perceives refugees as threatening may evaluate contact with this group more negatively due to their preconceptions, rather than due to the actual 'content' of the interaction. For future research, we recommend expanding the scope of the research to include more countries. European countries have had very different reactions to or have been affected in different ways by the large refugee movement of the past years. Including such different policy, economic, and reception contexts may yield a more comprehensive European picture of attitudes towards refugees, especially when combined with relevant individual indicators on direct and indirect intergroup contact and threat. On this note, we also suggest adopting more measures on indirect intergroup contact. We operationalized this through the frequency with which respondents consume news on refugees and news media consumption in general, but indirect contact has several aspects that were not explored in this study.

Conclusion

In conclusion, one of the major contributions of our research is that it combines measures of quality and quantity of direct and indirect (or mass-mediated) intergroup contact in association with attitudes towards refugees in a large sample of European adults. There are few studies that investigate attitudes towards refugees, but it is very important, especially right now, that we understand what factors predict such attitudes. After all, these individual attitudes may facilitate or complicate the integration of refugees in local society. And this is very much a local story, since refugees often go to specific regions (mostly cities) to reconnect with friends or family. Our findings indicate that rather than the quantity of direct contact, it is the quality of this contact which mainly drives attitudes – even when threat perceptions are controlled for. Additionally, the role of mass-mediated contact is complex: public television consumption positively relates to attitudes, while commercial television consumption negatively relates to them. We encourage efforts to increase direct intergroup contact – not only with refugees, but with anyone with a migration background – as it has been shown to improve attitudes towards refugees. Such initiatives often result in positive intergroup contact – rather than many contact occurrences – which we have found is vital in the development of positive attitudes. We also encourage objective representations of refugees in all media types. Involving refugees in the media content production may facilitate this process.

Declaration of interest

The authors declare no conflicts of interest.

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Appendix A

Items measuring attitudes towards refugees

To what extent do you think refugees mentioned below should be allowed to come and live here?

1. Refugees of the same race or ethnicity as most of [country]'s population.

2. Refugees of a different race or ethnicity than most of [country]'s population.

3. Refugees of the richer countries in Europe.

4. Refugees of the poorer countries in Europe.

5. Refugees of the richer countries outside Europe.

6. Refugees of the poorer countries outside Europe.

7. Refugees coming from Muslim countries who wish to work in [country].

Table A1. Internal consistency, standardized factor loadings, and correlations between items on attitudes towards refugees

(α = .94)	Factor loading	1.	2.	3.	4.	5.	6.	7.
1.	.78***	-						
2.	.92***	.76**	-					
3.	.80***	.74**	.72**	-				
4.	.92***	.74**	.84**	.77**	-			
5.	.86***	.70**	.77**	.87**	.77**	-		
6.	.93***	.69**	.87**	.69**	.88**	.79**	-	
7.	.87***	.62**	.82**	.65**	.78**	.75*	.85**	-

Note. Answer options range from 0 (allow none) to 4 (allow many).

Appendix B

Table A2. Results of the structural equation model

	Endogenous variables		
	Attitudes towards refugees	Realistic threat	Symbolic threat
Direct contact - friends	ns	-.10***	-.05***
Direct contact - random	.06***	-.02^{+}	-.06***
Valence of contact	.16***	-.43***	-.45***
Public television news	.03*	-.10***	-.11***
Commercial television news	-.06***	.11***	.09***
Refugee news	.06***	.11***	.06***
Age	-.06***	N/A	N/A
Gender (ref: Male)			
Female	.04***	N/A	N/A
Educational attainment	.05***	N/A	N/A
Migration background	ns	N/A	N/A
Residental characteristics (ref: Urban)			
Intermediate	ns	N/A	N/A
Rural	ns	N/A	N/A
Country of residence (ref: Belgium)			
France	-.02^{+}	N/A	N/A
Netherlands	ns	N/A	N/A
Sweden	.04**	N/A	N/A
Realistic threat	-.31***	N/A	N/A
Symbolic threat	-.28***	N/A	N/A

Note. +: $p < 0.10$; *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$. ns = not significant. Reference categories are men (for gender), urban region (for residential characteristics), and Belgium (for country fixed effects).