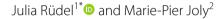
# **ORIGINAL ARTICLE**

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# Perceived loneliness: Why are Syrian refugees more lonely than other newly arrived migrants in Germany?



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# Abstract

Migration often impacts the mental and emotional health of those needing to move from their home countries. Studies have focused on migrants' levels of distress or wellbeing, and recent research looks at older migrants' experience with loneliness. What has yet to be researched is how different migrant groups experience loneliness, and how these feelings are affected by the contexts of leaving one country and reception in another. Drawing on the theoretical framework of integration, this article asks whether newly arrived refugees in Germany differ in their perception of loneliness from other newly arrived migrants. It examines these perceptions as related to social contacts and the context—and interplay—of exit and reception. Using OLS regressions with data from the Recent Immigration Processes and Early Integration Trajectories in Germany (ENTRA) project, we find that Syrian refugees have higher levels of loneliness than migrant groups from Poland, Italy, and Turkey. The difference is largely attributable to Syrians not having local German contacts, surviving traumatic experiences at home, and migrating specifically for physical safety. We also find that discrimination and not being in the labor force are determinants of loneliness across all four groups, and that even when considering migrant origins and other effects, having local social contacts lowers levels of loneliness. Our results point to migration policies, such as those related to family reunification and labor market access, for producing inequalities in loneliness between Syrian refugees and other migrants in Germany.

**Keywords:** Loneliness, Social contacts, Newly arrived migrants, Contexts of exit and reception, Refugees, Germany

## Introduction

For those choosing to leave their home country, either as refugees or as other migrants, migration is a critical life event requiring establishing new relationships, finding a job, learning immigration policies, and possibly dealing with traumatic migration experiences. Recent studies have highlighted that the emotional impact of migration results in higher levels of distress and ruptured feelings of belonging (Bhugra, 2004; Bhugra & Jones, 2001). People tend to rely on their family and friends, but migrants face a particular challenge because they leave behind these local support networks. Empirical research finds the loss of these networks results in a higher risk of perceived loneliness



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for migrants as compared to receiving populations (Fokkema & Naderi, 2013; Kim, 1999; ten Kate et al., 2020; Treas & Mazumdar, 2002; Victor et al., 2012). Studies highlight how major mechanisms such as establishing new social support networks, the network characteristics, and the frequency of contact may counteract feelings of loneliness (Djundeva & Ellwardt, 2020; Fokkema & Naderi, 2013; ten Kate et al., 2020; van Tilburg & Fokkema, 2021).

Most studies take a case-by-case approach in studying loneliness among migrants. They focus on a single country of origin or on one migrant group, for example, older migrants. Djundeva and Ellwardt (2020, 1296), who focused on the impact of networks among Polish migrants in the Netherlands, suggested that future research move "beyond comparing migrants with host populations, and instead [focus] on addressing selection into migration and differences between migrants." Indeed, the few studies that consider differences in loneliness among migrant groups find that some groups are more affected than others (de Jong Gierveld et al., 2015; Visser & El Fakiri, 2016). Visser and El Fakiri (2016) highlight that the differences may be attributed to the type of risk factor, such as perceived discrimination or socioeconomic difficulties.

What is often not analyzed is how different contexts for leaving and the level of reception in the new country translate directly or indirectly into higher levels loneliness or how support networks affect these levels. We look at this within the context of Germany by drawing on data from the Recent Immigration Processes and Early Integration Trajectories in Germany (ENTRA) project on Polish, Italian, Turkish, and Syrian migrants. The recent change in migration populations in Germany—especially the increased influx of refugees—highlights the necessity to intensify research on integration experiences.

This study captures important and overlooked determinants of loneliness—including the social contexts of the country of leaving and receiving—among newly arrived migrants. We test to what extent a theoretical framework of migrant integration applies to the study of loneliness among refugees and other migrants, contributing to a recent theoretical and empirical approach to refugee integration. Kogan and Kalter (2020) argued that the mechanisms that underly the integration of newly arrived refugees are similar to other migrants, while recognizing the important influence of conditions linked to refugee migration. This includes unplanned moves instead of self-selecting migration, a higher level of trauma from the context for leaving, and the level of reception in the new country.

Our focus on loneliness is relevant to research on migrant integration experiences and factors that shape these experiences. Loneliness has been found to be higher among migrants—especially among those who are newly arrived (Stick et al., 2021)—as well as be a negative life challenge for those migrants in a new country (Çitil-Akyol, 2024; Geurts & Lubber, 2023). Contextual factors related to the country of leaving, such as reasons for migration and exposure to trauma, and structural conditions of the receiving country, such as migration policies and discrimination, can influence migrants' social networks, employment experiences, and experiences of loneliness. Any differences in these contextual factors—linked to the country of origin or the ways they are welcomed in the new country—can lead to inequalities in levels of loneliness among migrants.

Our study asks to what extent do the types of social contacts and the contexts of exit and reception directly and indirectly contribute to differences in loneliness between Syrian refugees and other migrant groups in Germany? Other groups in the ENTRA project include recently arrived migrants from Poland, Italy, and Turkey, whose migration and reception contexts differ from Syrian refugees. We systematically analyze these differences in loneliness via levels of social contacts, contexts for migrating, and reception in Germany.

This article starts with an examination of major determinants of loneliness in published research to consider reasons for migrating and levels of reception to hypothesize why migrant groups seem to differ in their perceptions of loneliness. In our analysis, we conceptualize local and transnational networks and origin and destination effects to test group-specific impacts of social contacts on perceived loneliness. The article concludes with discussions of the results and suggestions for future research.

# Social contacts and loneliness

Having no friends, acquaintances, or family to interact with does not automatically mean that someone feels lonely. Conversely, someone can feel lonely even when they have an extensive network. Perceived loneliness can occur when individuals are dissatisfied with their personal networks and interactions (Peplau & Perlman, 1979); it can include a sense of emptiness, a lack of connectedness, and a feeling of not having enough or the right people to confide in (de Jong Gierveld & van Tilburg, 2006). Personal networks may help relieve feelings of isolation, but the support offered depends on the network's structure and its characteristics, such as its intensity and type of contacts within it (Berkman et al., 2000; Umberson & Montez, 2010).

Migration research on the impact of personal networks on loneliness includes analysis of certain migrant groups and characteristics and social contexts of networks. Ryan et al. (2008) note that network characteristics, including ethnic diversity, affected the type and amount of support offered. Djundeva and Ellwardt (2020) found that high levels of lone-liness among Polish migrants in the Netherlands were actually associated with small, homogenous, and kin-based networks. Some researchers report that non-kin-based coethnic local groups provide migrants with emotional support, comfort, and a sense of belonging and connectedness, which can buffer feelings of loneliness (Cela & Fokkema, 2017; Rios Casas et al., 2020; Simich et al., 2003; Viruell-Fuentes & Schulz, 2009). In contrast, Toruńczyk-Ruiz and Brunarska (2020) found that associating with natives also provides migrants with these supports. Koelet and de Valk (2016) found that the depth of contact to natives has a stronger beneficial effect than the frequency of contact, and the number of natives in the networks had no effect.

In addition to the inconclusive results in the research, the findings on the impact of living with a partner in the country of reception is also not clear. On the one hand, several studies find that living with a partner in the country of reception has a salutary effect on loneliness among migrants (Carella et al., 2022; van den Broek & Grundy, 2017). However, this arrangement does not fully protect against feelings of loneliness; and other studies have found that having coethnic friends and peers had more of a positive effect against loneliness than having a local partner (Cela & Fokkema, 2017; Rios Casas et al., 2020). Additionally, exposure to the family and friends of a partner from the country of reception may not affect the social loneliness associated with migration (Koelet & de Valk, 2016). Being separated from a partner from one's home country has been found to be an important determinant of emotional distress and associated with lower quality of life among refugees and other migrants (Georgiadou et al., 2020; Löbel & Jacobsen, 2021; Walther et al., 2020). In a study on Latina migrants, Rios Casas et al. (2020) highlight that some migrants do not confide their concerns to their partner, even when living with them in the receiving country, including worries of navigating the migration process, lack of emotional support, and feelings of loneliness. Instead, for comfort, some turn to friends who are migrants from the same region of the exiting country. Visser and El Fakiri (2016) discovered that migrants living with a partner had a smaller beneficial effect on loneliness than for the majority population, as found in their study on Turk-ish migrants and their children who were born in the Netherlands. The effect of having a partner in the country of reception varies depending on migrants' perception of the quality of the relationship (ten Kate et al., 2020).

The research on the impact of transnational contacts on loneliness has included multiple constellations of networks. For example, several studies found that transnational contact with family and friends offers migrants strong emotional benefits (Rios Casas et al., 2020; Toruńczyk-Ruiz & Brunarska, 2020; Viruell-Fuentes & Schulz, 2009). However, this contact is not sufficient when migrants live in a transnational arrangement (each partner in a different country). Those who live together with their immediate family in the country of reception report lower levels of loneliness (Carella et al., 2022; van den Broek & Grundy, 2017). Moreover, a study on European migrants living with their partner who is a national of the country of reception found that loneliness was unrelated to transnational contacts (Koelet & de Valk, 2016), although little is known of the simultaneous effects of local and transnational contacts on loneliness and how these contacts are shaped by the context of migration.

The research discussed in this section highlights that the nexus between personal networks and perceived loneliness is complex because factors include the intensity and type of contact in the new country and context of why people migrated. The multifaceted reasons, operationalization of social contacts, and social contexts have not been systematically compared to extract possible mechanisms of action. Berkman et al. (2000) have noted that macro-social context shapes personal networks. This article thus aims to fill in this lacuna by a systematic analysis of the contexts of exit and reception and how they affect the personal networks of newly arrived migrants and the group-specific effect on loneliness.

#### Group differences in loneliness: contexts of exit and reception

Migrants may differ in their levels of loneliness and in the determinants of their loneliness. Portes and Rumbaut (1996) found that migrants' incorporation in the receiving society is determined by individual characteristics such as skill level and work experience. Additionally, certain conditions at the group level—namely, the reason for exiting one's country and the reception of the receiving country—shape migrants' incorporation. This in turn impacts the mental health of certain migrant groups. Some direct and indirect effects for perceived loneliness among newly arrived migrants are illustrated in Fig. 1. We posit that the contexts of exit and reception are foundational factors that both directly and indirectly affect loneliness and social contacts.

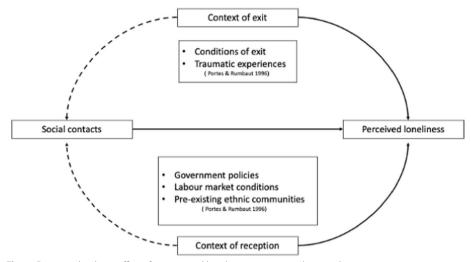


Fig. 1 Direct and indirect effects for perceived loneliness among newly arrived migrants

The context of exit is defined by the conditions found in the home country leading to the decision to migrate, and the context characterizes the migration itself (Kogan & Kalter, 2020). Motivations include, among many others, threat of loss of life, predictability of the move, and escaping war and/or repressive regimes. Context is considered when differentiating between refugees and migrants, but Portes and Rumbaut (1996) stress that distinctions are often too simplistic: the need for flight can occur for migrant groups even when they are not officially designated as refugees. Because the context for flight is a powerful predictor of mental health, Portes and Rumbaut (1996) recommend reviewing individual flight experiences instead of relying on "official" status. Several studies have found connections between migrant mental health and traumatic experiences (Joly & Wheaton, 2020; Rousseau & Drapeau, 2004).

The context of exit can have a direct and indirect determinant of perceived loneliness of newly arrived migrants. On the one hand, traumatic experiences in the home country are related to social isolation in the receiving country (Bhugra & Jones, 2001) and have been linked to perceived loneliness; for example, exposure to war and trauma in the home country can lead to feelings of loneliness after migration (Vang et al., 2021). For those who migrate for these reasons, their local social support networks are disrupted, which increases isolation in the new country (Bloch et al., 2000). Conversely, traumatic experiences causing migration might channel participation and increase local social contacts and emotional support. The context of exit thus impacts health dimensions, including mental health (Joly & Wheaton, 2015, 2020; Torres & Wallace, 2013), as does language acquisition (Kristen & Seuring, 2021) and labor market integration (Joly, 2019; van Tubergen et al., 2004). These factors could affect social integration and access to support networks (King et al., 2014; Koelet & de Valk, 2016).

Therefore, contextual factors linked to the country of leaving, such as exposure to trauma and migrating for safety, may lead to increased feelings of loneliness among migrants. This can also affect the number and frequency of their local and transnational social contacts, thus influencing feelings of loneliness.

The migrants' context of reception also determines the level of incorporation into the society of the country of reception and can affect loneliness among newly arrived migrants. Portes and Böröcz (1989) found that the policies of the receiving government, discrimination in the new country (especially as related to the labor market), and the preexistence of an ethnic community are three factors that ease or hamper migrants' integration. A government's policies set the legal framework, being either exclusionary, passively supportive, or actively supportive of certain migrant groups (Portes & Rumbaut, 1996). Migrants can have different rights and access to welfare and resources. Migration policies can restrict freedom of movement, separate families, negatively impact access to the labor market, cause legal insecurity and uncertainty, and limit opportunities in a new country (Galabuzi, 2016; Graf & Heß, 2020; Maaroufi, 2017; Schweitzer, 2015). Consequently, these policies can disrupt social support networks and increase loneliness. For example, precarity in legal status impacts mental health because migrants worry about permanent placement, possible deportation, and chances for family reunification (Asad & Clair, 2018; Cavazos-Rehg et al., 2007; Löbel & Jacobsen, 2021). This in turn hinders settlement and finding work and long-lasting social contacts (Carella et al., 2022; Diehl & Blohm, 2006) and may increase feelings of loneliness.

Related to the labor market, it is well known that lower-skilled migrants tend to be disadvantaged (Fleischmann & Dronkers, 2010; van Tubergen et al., 2004), and research points to the impact of labor market discrimination on mental health (Joly & Reitz, 2018). However, discrimination in the labor market differs among migrant groups, with Black and Muslim migrants experiencing the highest levels (Thijssen et al., 2022). Not being in the labor force increases levels of loneliness (Morrish & Medina-Lara 2002). Among refugees and other migrants, it can decrease contacts with natives (Seibel, 2020) and lower national self-identification to the receiving country partly due to fewer social contacts with natives (de Vroome et al., 2011). It can also diminish sense of belonging (Morrish and Medina-Lara 2002).

This article assumes that discrimination has both direct and indirect effects on newly arrived migrants by decreasing the feeling of belonging and increasing perceived loneliness (Lee & Bierman, 2019; Djundeva & Ellwardt, 2020; Klok et al., 2017; Lee & Turney, 2020). As demonstrated by Sadeghi (2019), anti-foreigner prejudice, Islamophobia and racism has increased experiences of discrimination and lowered sense of belonging of Iranians in Germany.

Along with legal status, employment and discrimination, access to a preexisting ethnic community might play a leading role in the perceived loneliness among migrant groups. Ethnic communities provide instrumental, informational, and emotional support (Ryan et al., 2008), but not every migrant can rely on such contacts being available. For example, those who are "pioneer migrants" obviously will not find ethnic network structures in place (Portes & Rumbaut, 1996), and following migrants may not have easy access to these resources (Ryan et al., 2008).

Thus, state policies, through their influence on migrants' experiences such as discrimination and un/employment, and access to preexisting ethnic community in the new country may influence social contacts and feelings of loneliness. These contextual factors—in addition to those related to the country of leaving—can lead to disparities in experiences of loneliness among migrants, and their support networks.

## **Current study and research expectations**

This study examines whether Syrian refugees feel more lonely than Polish, Italian and Turkish migrants in Germany and the extent to which social contacts and the context— and interplay—of exit and reception contribute to differences in loneliness. These four groups differ in their context of exit and reception, which allows us to systematically analyze group differences in loneliness. Syrians are the most recent migrant group in Germany, with less history of migration and considerably lower labor skills. Other differences include their traumatic context for migration, shattered social support networks at home, and lack of a local ethnic community plus higher levels of hostility in Germany (Jäckle & König, 2017). Syrian refugees are subjected to an asylum system that restricts their choice of relocation within Germany, separates them from family members, delays their entry into the labor market, and creates legal uncertainty (Gowayed, 2022; Maaroufi, 2017; Yanaşmayan, 2023). Thus, the expectation that Syrian refugees have higher levels of loneliness compared to the other three migrant groups.

We then ask to what extent do the types of social contacts and the context of exit and reception directly and indirectly contribute to the differences in loneliness. Syrian refugees have different levels of access to support networks. Compared to Polish, Italian, and Turkish newly arrived migrants, they have to rely on a smaller community network in Germany. Until 2012, migration from Syria to Germany had been relatively low (Seuring et al., 2023). Thus, their networks are more likely to be disrupted. While they may maintain digital connections with their country of origin, they have fewer physical contacts (Kogan & Kalter, 2020). We expect that fewer local and transnational support networks partially explain the higher levels of loneliness of Syrian refugees.

Regarding the context of exit, Syrian refugees have fled the civil war in their home country and are more likely to have moved to Germany with the expectation of protection and safety than the other three migrant groups (Torfa et al., 2022). They are also more likely to have experienced traumatic events. Newly arrived Italian and Polish migrants have mainly moved for work and education, while the recent migration population from Turkey is diverse. This includes students, people reuniting with their family and/or people who fled discrimination and persecution due to the political situation (Aydin, 2016; Türkmen, 2019). We expect the traumatic context of leaving of Syrian refugees to explain their higher levels of loneliness—both directly and indirectly via fewer social contacts.

In relation to the context of reception, Syrian refugees experience higher levels of hostility, more often hold insecure legal status and have almost no pre-existing ethnic community. They are also less likely to be working (Seuring et al., 2023). General violence targeting refugees has increased (Jäckle & König, 2017), and Syrians (who come from a Muslim majority country) are targets of anti-Muslim sentiments, which are strong in German public discourse (Foroutan, 2012). Similarly, Turkish migrants face severe discrimination in Germany as symbolic boundaries to Islam are quite widespread (Yilmaz Sener, 2019). Thus, we expect that context of reception explains little of the difference in loneliness between Syrian and Turkish migrants.

Italian and Polish migrants face a more favorable context of reception. They are less discriminated in the labor market, have secure legal status and work permits, and can rely on at least small pre-existing ethnic communities (Seuring et al., 2023). We expect

that the more hostile context of reception for Syrian refugees compared to Italian and Polish migrants, partially explains their higher levels of loneliness--directly and indirectly.

## Methods

## Data

We address our questions using data from the first wave of the ENTRA project, a largescale panel survey focusing on recently arrived migrants from four large ethnic minority groups in Germany (Seuring et al., 2023). The survey addresses early integration trajectories and offers a wide range of social, cultural, and economic demographics. The sample consists of Italian, Polish, Turkish, and Syrian migrants. At their first ENTRA project interviews in 2019, respondents were between 18 and 41 years of age, with a maximum length of stay of four years. Our analysis sample consist of 3414 participants, ranging from 780 to 979 people in the four migrant groups in the study.

The ENTRA project sample was drawn in two stages. The first stage used data from the German Federal Office for Statistics, from which five cities were selected with the highest inflow for these migrant groups. The second stage used randomly drawn samples from local registry offices of these cities, thus, the sample excludes all other cities in Germany. To increase participation in the study, respondents were offered the option of participating online, via phone interview, or in person. The survey and all communication with the respondents were conducted in their respective native languages.

## Variables

#### Perceived loneliness

Our dependent variable, *perceived loneliness*, is measured using the 6-item de Jong Gierveld Loneliness Scale (de Jong Gierveld & van Tilburg, 2006). The scale includes three items on emotional loneliness and three on social loneliness.<sup>1</sup> Response options are yes, more or less, or no. Our analysis uses the mean scale, ranging from 1 (indicating low levels of loneliness) to 3 (indicating high perceived loneliness) (cronbach alpha = 0.74).

## Social contacts

To measure social contacts and to account for multiple types of support (e.g., Ryan et al., 2008), we include variables for local core networks, frequency of contacts, partner, and transnational contacts.

To find out about local core networks, respondents were asked for the names of the three people in Germany they discuss important personal matters with. In follow-up questions, the named people were further characterized by their country of birth, enabling the ethnic composition of the core networks, and to include variables for *number of Germans, number of coethnics,* and *number of other migrant* (see footnote 1).

To measure frequency of contacts, respondents were asked: "How often do you spend time with [named person]." Answers ranged from 1 to 6, with 1 being "never" and 6 being "every day." This allowed us to include the *frequency of contacts with Germans, coethnics, and other migrants.* 

<sup>&</sup>lt;sup>1</sup> Appendix Table 3 lists the survey question(s) for this variable.

As previous research highlights, one predictor for loneliness is having a locally based partner (Carella et al., 2022; van den Broek & Grundy, 2017). Our models include variables for local partner, differentiating between *German, coethnic,* and *other local partner, transnational partner,* indicating *the respondent has* a partner who live outside Germany, and *no partner,* the reference group.

Furthermore, because newly arrived migrants tend to maintain transnational ties (Djundeva & Ellwardt, 2020), we include the measure for *number of transnational contacts*; that is, how many people outside of Germany the participants conversed with over the previous four weeks. The answer categories ranged from 1 to 5, with 1 being "0 people" and 5 being "15 or more people."

To account for preexisting ties, and especially for same-ethnic communities, we include three dichotomous variables to indicate *premigration ties to coethnics, premigration ties to Germans* and *premigration ties to other migrants* (see footnote 1).

#### Context of exit

To address the context of exit, we included two measures in our models. For the motive behind the migration, ENTRA project respondents were asked why they moved to Germany: *work/education, family,* or *safety reasons,* and they could indicate more than one reason. This generated three dichotomous variables. Our second measure, *trauma experiences,* was based on modified items from the Brief Trauma Questionnaire (Schnurr et al., 1999). Respondents were asked three questions on their experiences with violent situations before migrating to Germany<sup>2</sup>: (1) "Have you ever witnessed a situation in which someone was seriously injured or killed or have you ever witnessed a situation in which you feared someone would be seriously injured or killed?"; (2) "Have you ever been in any situation in which you were seriously injured or killed?"; and (3) "Has a close family member or friend died violently, for example, in a serious car crash, mugging, or attack?" We summarized the three questions as total scores, ranging from 0 to 3, where 0 indicates no traumatic experiences and 3 indicates severe experiences.

## Context of reception

To account for the context of reception and to address the varying ways this affects migrants in Germany, we included measures for discrimination, the regional unemployment rate, the percentage of coethnics living in the same area, labor market inactivity, and legal status.

We used two measures of discrimination. *Group discrimination* is based on the question: "Some say that people from your country of origin are treated unfairly in Germany. How often do you think people from your country of origin are treated unfairly in Germany?" The second measure is *individual (or personal) discrimination,* which may have a different influence on feelings of loneliness. Respondents were asked: "And you personally, have you been treated unfairly since you moved to Germany?" On both measures, the answer categories ranged from 1 to 5, with 1 being "never" and 5 being "very often."

<sup>&</sup>lt;sup>2</sup> Interviewers were trained to ask sensitive questions (Seuring et al., 2023).

Two measures capture the regional context of reception: *regional unemployment rate* and *percentage of coethnics living in the same area* at the time of the survey. Both measures are from the microm database (Microm, 2022) and standardized to a mean of 0 and a standard deviation of 1.

*Individual labor market inactivity* is a dichotomous variable distinguishing among people who work, study in school, or have an internship versus those who do not work, study, or have an internship.

Additionally, we planned to add the legal status and differentiate between a *permanent resident permit, a temporary resident permit,* and *no resident permit* for the legal status variable. However, in preliminary analysis (not included), we found that the percentage of Syrian and Turkish migrants who had permanent resident permits at the time of the study was small (only 3.7 and 5.7%, respectively, compared to 100% for Italian and Polish migrants). This variable also had no effect in explaining group-differences in loneliness likely due to collinearity with the migrant groups. We therefore removed it from our final analysis.

## Controls

We control for socio-demographic confounders, such as age, education, gender, German language proficiency, and city. *Age* (in years) is included as a continuous variable, while level of *education* includes three dichotomous variables (indicating low, middle, and high education, according to the International Standard Classification of Education [ISED-08]). *German language proficiency* is included as the mean value based on the self-assessed ability to read, write, talk, and understand German, ranging from 1 ("not at all") to 6 ("native speaker level"). Dummies included the respondent's current *city* and *mode of participation*.

## Analysis plan

In the initial step of our analysis, we used descriptive statistics to examine migrant group differences in loneliness, social contacts, and contexts for migrating and reception. Next, we used ordinary least squares (OLS) regressions to examine differences in loneliness between groups. We developed a series of models to explain the differences in loneliness between Syrian refugees and the other migrant groups after controlling for socio-demographic characteristics. These models specify the effects of social contacts and contexts for leaving one country and reception in Germany. They also indicate how the contexts for leaving and receiving influence social contacts and feelings of loneliness. We used listwise deletion to handle any missing data in our analyses.

#### Results

#### **Descriptive statistics**

Table 1 presents descriptive statistics for the four migrant groups. Relative to migrants from Turkey, Poland, and Italy, those from Syria report significantly higher levels of loneliness. In their local core networks, they have fewer Germans and more people of their own ethnicity. In relation to frequency of contacts, Syrian refugees have less contact with Germans and other ethnic groups as compared with the other three groups.

Loneliness1–3Social contact1–3Social contact0–3Core network0–3No. of Germans0–3No. of others0–3Frequency of contact1–6With Germans1–6With others1–6With others1–6Partner1–6Local German1–6	Mean or %	G							
		1	Mean or %	SD	Mean or %	SD	Mean or %	SD	
	1.78	0.50	1.68	0.49	1.59	0.48	1.57	0.52	a,b,c
	0.28	0.64	0.52	0.76	0.53	0.82	0.45	0.74	a,b,c
	1.44	1.21	1.06	1.05	1.09	1.08	0.87	1.05	a,b,c
	0.14	0.41	0.27	0.57	0.41	0.71	0.40	0.71	a,b,c
oethnics sthers German	4.41	1.47	4.62	1.46	5.05	1.27	4.83	1.42	a,b,c
athers German	4.47	1.14	4.59	1.28	4.68	1.35	4.46	1.34	q
Partner Local German	3.38	1.68	4.24	1.60	4.89	1.27	4.34	1.59	a,b,c
Local German									
	3.7%		24.3%		14.6%		13.0%		a,b,c
Local coethnic	42.2%		38.3%		27.6%		43.1%		q
Local other	2.4%		6.6%		10.1%		10.4%		a,b,c
Transnational	5.7%		5.7%		11.6%		8.3%		b,c
Premigration ties									
With Germans	5.4%		28.5%		36.7%		42.2%		a,b,c
With coethnics	62.6%		70.6%		50.3%		65.1%		a,b
With others	2.2%		18.5%		19.4%		27.5%		a,b,c
No. of transnational contacts 1–5	3.27	1.16	3.55	1.06	3.80	96.	3.55	1.04	a,b,c
Destination effects									
Group discrimination	2.54	1.04	2.75	0.89	2.56	0.86	2.94	0.87	a,c
Regional unemployment rate	8.0%		6.1%		6.0%		6.8%		a,b,c
% of coethnics in same area	10.5%		6.8%		1.0%		8.0%		a,b,c
Personal discrimination	2.02	1.13	2.07	98	1.98	96.	2.15	1.03	U

 Table 1
 Descriptive statistics according to migrant group by country

	Range	Syria (n=979)		Turkey (n=780)		Italy (n $=$ 860)		Poland (n=795)		<i>p</i> < 0.05
		Mean or %	SD	Mean or %	SD	Mean or %	SD	Mean or %	SD	
Being inactive		29.9%		23.9%		9.4%		15.0%		a,b,c
Origin effects										
Trauma experience	0-3	1.61	1.17	0.50	0.82	0.56	0.83	0.69	0.89	a,b,c
Migration motives										
Work/education		39.6%		59.4%		80.1%		74.7%		a,b,c
Family		17.7%		38.2%		13.9%		28.9%		a,b,c
Safety		82.6%		26.1%		8.8%		17.8%		a,b,c
Descriptive statistics for sociodemographic characteristics and mode of participation are in Table 4 in Appendix	hic characteristics	s and mode of particip:	ation are in Ta	ole 4 in Appendix						

Table 1 (continued)

 $^{\rm a}$  Significant difference between migrants from Syria and Turkey  $^{\rm b}$  Significant difference between migrants from Syria and Italy

<sup>c</sup> Significant difference between migrants from Syria and Poland

Additionally, they are less likely to have a partner, including a German partner. They also have fewer premigration ties to Germans and transnational social contacts.

Data reveal additional differences among the groups. For example, relative to Turkish, Polish, and Italian migrants, Syrians are markedly less likely to work. They more often live in neighborhoods with high unemployment rates and near people of their own ethnicity. They are more likely to have migrated for reasons of safety and less likely for family, work, or education. Compared to the three other groups, Syrians have experienced substantially more traumatic events in their home country before migration.

## **Explaining group differences in loneliness**

Table 2 presents results from our set of regression analyses related to differences in loneliness among newly arrived Syrian refugees and newly arrived Turkish, Polish, and Italian migrants in Germany. These regressions examine (1) Whether Syrian refugees differ in their perceived loneliness from the other three migrant groups after controlling for socio-demographic characteristics, (2) To what extent do social contacts—local and transnational—and contexts of exit and reception directly contribute to these differences, (3) And to what extent contexts of exit and reception indirectly contribute to differences in loneliness through social contacts.

Model 1 shows that Syrian refugees experience significantly higher levels of loneliness compared to the other three migrant groups after holding constant age, gender, and language proficiency. Model 2 shows the extent to which Syrian refugees' higher levels of loneliness is explained by their decreased number of local and transnational social contacts. By comparing Models 1 and 2, we find that including social contacts reduces the coefficients for the differences in loneliness between Syrian refugees and the other three migrant groups between 23 and 45% (from -0.127 to -0.070, for Turks, from -0.234 to -0.141, for Italians, and from -0.249 to -0.192, for Poles). This suggests that Syrian refugees' fewer number of local and transnational social contacts explains an important part of their higher levels of loneliness.

Models 3–5 show how differences in contexts for leaving one country and reception in Germany help explain differences in loneliness between Syrian refugees and the other migrant groups, taking into account the effects of social contacts. These also show to what extent contexts for leaving one country and reception influence the effects of social contacts on loneliness. Model 3 adds variables for group discrimination, regional unemployment rates, and the percentage of coethnics in neighborhoods. The coefficients for differences in loneliness between Syrian refugees and both Turkish and Polish migrants are increased (from -0.070 to -0.084, or by 17% and from -0.192, to -0.214, or by 10%, respectively), indicating that one or more factors added in Model 3 have a suppressing effect. Additional analysis (not included) indicates the suppressing effect of group discrimination. As Table 1 illustrates, Syrian refugees report lower levels of discrimination. Regional unemployment rates and the percentage of coethnics in neighborhoods are not associated with loneliness.

**Table 2** Ordinary least square regression explaining migrant group differences in loneliness (N = 3,414)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Migrant group (ref. Syrians)						
Turks	-0.127***	- 0.070**	-0.084**	- 0.075**	0.015	- 0.003
	(0.026)	(0.026)	(0.028)	(0.028)	(0.030)	(0.031)
Italians	-0.234***	-0.141***	-0.141***	-0.127***	-0.042	- 0.043
	(0.026)	(0.028)	(0.032)	(0.031)	(0.033)	(0.036)
Poles	- 0.249***	-0.192***	- 0.214***	- 0.190***	- 0.110***	- 0.119**
	(0.028)	(0.029)	(0.029)	(0.029)	(0.033)	(0.033)
Social contact	(0.020)	(0.023)	(0.023)	(0.025)	(0.000)	(0.055)
Core Network						
No. of Germans		- 0.100***	-0.100***	- 0.098***	-0.102***	- 0.100**
		(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
No. of coethnic		- 0.080***	- 0.080***	- 0.079***	- 0.083***	- 0.081**
No. of coetimic		(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
No. of other		- 0.089***	- 0.086***	- 0.081***	- 0.093***	- 0.085***
NO. OF OTHER		(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Frequency of contact		(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
With Germans		0046***	- 0.043***	- 0.038***	0046***	0 0 2 0 **
With Germans		- 0.046***			- 0.046***	- 0.039**
		(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
With coethnics		- 0.023***	- 0.027***	- 0.027***	- 0.023***	- 0.027**
		(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
With others		-0.012	- 0.013*	- 0.012	-0.012	- 0.012
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Partner (ref. no partner)						
Local German		- 0.038	-0.038	-0.042	- 0.050	- 0.052
		(0.027)	(0.027)	(0.027)	(0.027)	(0.027)
Local Coethnic		- 0.082***	-0.078***	-0.081***	-0.083***	-0.081**
		(0.021)	(0.021)	(0.020)	(0.021)	(0.021)
Local Other		-0.107**	-0.112***	-0.121***	-0.105**	-0.118**
		(0.034)	(0.034)	(0.033)	(0.034)	(0.033)
Transnational		-0.013	- 0.006	- 0.008	- 0.009	-0.004
		(0.032)	(0.032)	(0.031)	(0.032)	(0.031)
No. of transnational contacts		- 0.023**	-0.023**	-0.024**	-0.023**	-0.024**
		(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Premigration ties						
With Germans		- 0.039	- 0.036	-0.032	- 0.039	-0.032
		(0.022)	(0.022)	(0.021)	(0.022)	(0.021)
With coethnics		- 0.059***	- 0.059***	- 0.057***	-0.063***	- 0.059**
		(0.017)	(0.017)	(0.017)	(0.018)	(0.017)
With others		0.014	0.013	0.005	0.012	0.004
		(0.025)	(0.025)	(0.025)	(0.025)	(0.025)
Destination effects		(		(		
Group discrimination			0.062***	0.013		0.015
			(0.009)	(0.010)		(0.010)
Regional unemployment rate			- 0.004	- 0.006		- 0.007
negional anempioyment late			- 0.004 (0.005)	(0.005)		(0.005)
% of coethnics in same area			0.000	(0.003) 		
70 OF CUELTITICS IT SAITE died						- 0.000
			(0.001)	(0.001)		(0.001)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Personal discrimination				0.078***		0.073***
				(0.009)		(0.009)
Being inactive				0.080***		0.073**
				(0.022)		(0.023)
Origin effects						
Trauma experience					0.043***	0.034***
					(0.009)	(0.008)
Migration motives <sup>a</sup>						
Work/education					- 0.029	-0.032
					(0.020)	(0.020)
Family					0.010	0.006
					(0.022)	(0.022)
Safety					0.061**	0.058**
					(0.022)	(0.022)
R-squared	0.051	0.141	0.154	0.174	0.152	0.181

#### Table 2 (continued)

Standardized coefficients; standard errors in parentheses; models control for socio-demographic variables, city, and mode of participation as per Table 5 in Appendix

<sup>a</sup> Not mutually exclusive categories

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Model 4 adds variables for personal discrimination and labor market inactivity. Being discriminated against and inactive in the labor market is associated with higher levels of loneliness and accounts for some of the differences in loneliness between Syrian refugees and the other migrant groups.

With the addition of personal discrimination in Model 4, the coefficient for the effect of group discrimination on loneliness is also reduced by nearly 80% and is no longer significant (from 0.062, p < 0.001 to 0.013 p > 0.05). This suggests that migrants who report discrimination at the group-level are more likely to report discrimination at the individual-level, which more strongly correlates with loneliness.

Model 4 also shows that the variables for receiving contexts—personal discrimination and labor market inactivity—partially explain how frequency of contacts with Germans affect loneliness. The addition of these variables slightly reduces the coefficient for the effects for frequency of contacts with Germans on loneliness (from -0.043 to -0.038, or by 12%). Additional analyses (not included) reveal that not being in the labor market affects frequency of contacts with Germans—a factor for loneliness. As Table 1 illustrates, Syrian refugees are significantly more likely not to be in the workforce as compared to the other migrant groups and are two to three times more likely not to be in the workforce as compared to Italian and Polish migrants. This suggests that some of the effects of local social contacts with Germans on loneliness is attributed to not to be in the workforce.

Model 5 adds variables for contexts of exit to the variables in Model 2. Traumatic events and reasons for migration significantly reduces the coefficients for differences in loneliness between Syrian refugees and the other three migrant groups. The difference

with Turks and Italians are reduced by 78 and 70% to nonsignificance (from -0.070, p < 0.001 to -0.015, p > 0.05 and from -0.141 p < 0.001 to -0.042, p > 0.05, respectively), while the difference with Poles is reduced by 43% (from -0.192 to -0.110) but remains statistically significant. This means that the variables for contexts of exit help explain differences in loneliness between Syrian refugees and all three other groups. It is critical to point out that any traumatic events experienced prior to migration and needing to seek safety through migration are also factors in the higher levels of loneliness for Syrian refugees.

The addition of variables for contexts of exit does little to the effects of local and transnational social contacts on loneliness among Syrian refugees and the other three migrant groups. Having a local partner appears to conceal some of the effects of trauma and seeking safety through migration on loneliness. In separate analyses (not included), we find the effects of trauma and seeking safety though migration to be stronger when we simultaneously consider the effects of having a local same-ethnicity partner. Indeed, having this type of partner appears to partially suppress the effects of trauma and seeking safety through migration on loneliness among Syrian refugees. This highlights the crucial beneficial or protective effects of having a same-ethnicity partner in the country of reception.

The full model (Model 6) considers the effects of social contacts and the contexts for leaving and reception. Together, these account almost entirely for the higher levels of loneliness experienced by Syrian refugees as compared with both Turkish and Italian migrants. The addition of these factors significantly reduces the coefficients for differences in loneliness between Syrian refugees and both Italian and Turkish migrants to be no longer significant. It also reduces the coefficient for differences in loneliness between Syrian refugees and Polish migrants by one half, although it remains statistically significant. Our findings support our expectations that Syrian refugees have higher levels of loneliness than the other three migrant groups. The context of exit is crucial in explaining these differences. We also find that social contacts are important in explaining the higher levels of loneliness of Syrian refugees, although to a lesser degree. There is an interplay between social contacts and contexts of exit and reception, which influences levels of loneliness.

## **Discussion and conclusions**

This article examined how social contacts and contexts of exit and reception affect feelings of loneliness among newly arrived migrants in Germany using data on Syrian, Italian, Polish, and Turkish migrants. We found these factors cause Syrian refugees to experience more loneliness than the other three migrant groups. Specifically, compared to the three groups, Syrian refugees have fewer local contacts with Germans and fewer transnational contacts. Additionally, they are more likely to be not in the labor market, have migrated for personal safety, and experienced trauma in their home country. Our findings suggest that these factors combined explain the higher levels of loneliness experienced by Syrian refugees and clarify the interplay of social contacts and contexts of exit and reception.

Context of exit has a crucial direct effect on loneliness even after accounting for social contacts, either local or transnational. Having experienced traumatic events prior to

migration is associated with higher levels of loneliness among all four groups. Additionally, being forced to migrate for personal safety is associated with higher levels of loneliness among the migrant groups. However, our findings suggest that context of exit does not directly influence the effect of local social contacts; conversely, local social ties directly weaken the effect of context of exit. The presence of a coethnic partner in Germany reduces the effects of traumatic life events experienced premigration and having migrated for safety. Findings indicate that being separated from a partner of the same ethnicity or having no partner at all (in either the home, receiving, or another country) can lead to higher levels of loneliness.

Besides the context of exit, social contacts are a major determinant of loneliness and also have an important role in explaining the group differences in loneliness. Our study speaks to the importance of social contacts, and points to the negative effects of family separation and disruption of support networks. Having a large number of same-ethnicity members in local core networks, a higher frequency of contacts with Germans, a partner from the same country of origin in the receiving country, premigration coethnic ties, and frequent transnational contacts are all associated with lower levels of loneliness. The impact of social contacts on loneliness may vary depending on context of exit from the home country. For those migrating for reasons of safety, the physical and social proximity to family appear to be important factors on levels of loneliness.

Regarding the context of reception, being discriminated against and not being in the workforce partly explain the higher levels of loneliness of Syrian refugees as compared to the other migrant groups. The other migrant groups are more likely to be *in* the labor force than Syrian refugees. Italian migrants also report lower incidences of discrimination. We found that the effect of discrimination holds when the effects of social contacts are considered. This repeats findings from other studies (Cela & Fokkema, 2017; Lee & Bierman, 2019; Lee & Turney, 2020; Makwarimba et al., 2013; Visser & El Fakiri, 2016). It suggests that their effects do not fully offset or influence each other.

Additionally, our study underlines the indirect effects of the context of reception via social contacts on loneliness. Not being in the workforce decreases opportunities for contact with Germans and other ethnic groups, leading to increased feelings of loneliness; and compared to the three migrant groups, Syrian refugees have drastically higher levels of unemployment because they face bureaucratic hurdles, discrimination, a lack of recognition of foreign credentials (Etzel, 2022; Gowayed, 2022; Khan-Gökkaya & Mösko, 2021; Maaroufi, 2017), and issues with their legal status (Maaroufi, 2017). Additionally, it is possible that initial stays in reception centers amplify feelings of loneliness because of limited access to social ties with locals.

In conclusion, our study on the loneliness of Syrian refugees newly arrived in Germany as compared to other recent migrants from Turkey, Poland, and Italy demonstrates the interplay of social contacts and contexts of exit and reception. It draws attention to the ways these factors interact and contribute to differences in levels of loneliness, thus filling in some of the lacuna that exist in the current literature. Previous research has often focused on a single country of origin or on one migrant group, usually older migrants—to examine migrants' perceptions of loneliness. Studies have also concentrated on migrants' mental health, which can be complicated by the experience of loneliness (Malli et al., 2021; Stick et al., 2021). This study goes beyond existing work by focusing on refugees and other migrant groups, who differ in their migration and reception experiences in Germany. It demonstrates not only peculiarities but also commonalities in their determinants of loneliness and points to the negative impacts of migration policies for Syrian refugees. A comparison between Syrian refugees and other refugee groups in Germany, such as those from Afghanistan and Ukraine, would have provided additional insights into the ways the receiving context influences loneliness. It could be shown how race and ethnicity influence the receiving context of refugees (De Coninck, 2023; Gowayed, 2022), the implications of which point to an unequal asylum system. This includes faster application procedures and labor market entry, as well as an exemption to the dispersal and reception center policies that were applied to Ukrainian refugees (Yanaşmayan, 2023).

We suggest that future studies should further examine the role of time in the receiving country, as some of the effects on loneliness that we observed may change over longer periods of time. The role of legal status should also be examined. Temporary legal status creates challenges for family reunification. Syrian refugees in Germany face many obstacles in this regard, including a temporary halt to the family reunification program for those with subsidiary refugee protection, then a reinstatement of the program but with a quota and long delay. This can affect mental health (Löbel & Jacobsen, 2021) and increase loneliness. The way that family is defined in family reunification program in Germany is also restrictive for Syrian refugees (Alkan, 2022). Future studies should examine the influence of family networks in the country of reception on loneliness for newly arrived migrants. Family members not limited to the nuclear family can yield considerable emotional support and reduce loneliness for newly arrived migrants who have experienced family separation and disruption of their social networks when fleeing war and gross human rights violations.

#### Appendix

See Tables 3, 4, 5.

Variable	Question		Answer
Loneliness			
	Please indicate for each of the following statements, the extent to which they apply to your situation, the way you feel now		
	l experience a general sense of emptiness	1	Yes
		2	More or less
		3	No
		- 97	Don't know
		- 98	Refuse to answer
	There are plenty of people I can rely on when I have problems	1	Yes
		2	More or less
		3	No
		- 97	Don't know
		- 98	Refuse to answer

 Table 3
 Survey questions for specific variables

Variable	Question		Answer
	There are many people I can trust completely	1	Yes
		2	More or less
		3	No
		- 97	Don't know
		- 98	Refuse to answer
	There are enough people I feel close to	1	Yes
		2	More or less
		3	No
		- 97	Don't know
		- 98	Refuse to answer
	I miss having people around	1	Yes
		2	More or less
		3	No
		- 97	Don't know
		- 98	Refuse to answer
	l often feel rejected	1	Yes
		2	More or less
		3	No
		- 97	Don't know
		- 98	Refuse to answer
Core network			
	Of all the people who are important to you we'd like to know a bit more about the first three you can think of. To make it easier for you to answer the fol- lowing questions please name these three persons. You can use either their first names, nicknames, abbreviations or initials		
	In what country was [name1/name2/name3] born?	1	[CO]
		2	Germany
		3	Other
		- 97	Don't know
		- 98	Refuse to answer
Premigration ties			
5	Before you moved to Germany this time, did you know people in Germany?	1	Yes, other [CO people/pl]
		2	Yes, Germans
		3	Yes, people from another country
		0	No
		- 97	Don't know
			Refuse to answer

# Table 3 (continued)

	Range	Syria (n = 979)		Turkey (n $=$ 780)	6	Italy (n $=$ 860)		Poland (n=795)	5)	p < 0.05
		Mean or %	SD	Mean or %	SD	Mean or %	SD	Mean or %	SD	
Sociodemographic variables										
Sex (female)		34.0%		43.3%		50.3%		64.2%		a,b,c
Age	18-40	28.62	5.69	28.85	5.76	28.09	5.22	28.61	5.25	
German Proficiency	1–6	3.93	.91	3.354	1.12	3.44	1.48	3.48	1.20	a,b,c
Education										
Low		28.7%		9.1%		6.0%		4.5%		a,b,c
Middle		42.5%		40.6%		47.5%		34.7%		b,c
High		28.7%		50.2%		46.3%		60.7%		a,b,c
Control variables										
Mode of Participation										
CAWI		41.4%		74.3%		86.8%		95.2%		a,b,c
CATI		31.2%		20.8%		9.8%		3.6%		a,b,c
CAPI		27.2%		4.7%		3.2%		1.2%		a,b,c
<sup>a</sup> Significant difference between migrants from Syria and Turkey <sup>b</sup> sinnificant difference between minrants from Syria and Italy	igrants from Syria : igrants from Syria	and Turkey								

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<sup>c</sup> Significant difference between migrants from Syria and Poland. City not shown due to data protection  $^{\rm b}$  Significant difference between migrants from Syria and Italy

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**Table 5** Ordinary least square regression explaining migrant group differences in loneliness: sociodemographic and control variables (N = 3,414)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Sociodemographic variables						
Sex	0.019	0.016	0.015	0.002	0.024	0.010
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Age	-0.004*	- 0.003	- 0.002	- 0.003	-0.005**	-0.004*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
German proficiency	-0.045***	-0.027***	-0.028***	- 0.025**	-0.026***	-0.024**
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Education (ref. low)						
Middle	-0.072*	- 0.046	- 0.051	- 0.044	- 0.045	- 0.043
	(0.028)	(0.027)	(0.027)	(0.026)	(0.027)	(0.026)
High	-0.120***	- 0.069*	-0.077**	- 0.069*	-0.060*	-0.061*
	(0.029)	(0.028)	(0.028)	(0.028)	(0.029)	(0.028)
Control variables						
Participation mode (ref. CAWI)						
CATI	-0.106***	-0.091***	- 0.080***	-0.067**	- 0.096***	-0.072**
	(0.025)	(0.024)	(0.023)	(0.023)	(0.024)	(0.023)
CAPI	-0.082*	- 0.078*	- 0.069*	- 0.059*	- 0.083**	-0.065*
	(0.032)	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)

Standardized coefficients; standard errors in parentheses; city not shown due to data protection

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

#### Abbreviation

ENTRA Recent Immigration Processes and Early Integration Trajectories in Germany

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#### Author contributions

Both authors have made substantial intellectual contribution to the manuscript and approved the submitted version. JR and MPJ both contributed to the conceptualization, design of the analysis, the interpretation of the data, and drafted and edited the final version of the manuscript.

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#### Availability of data and materials

The data analyzed is available in the GESIS data repository, https://doi.org/10.4232/1.14014. Any questions regarding the data can be directed to the corresponding author.

#### Declarations

#### **Competing interests**

The authors declare that they have no competing interests.

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