

RESEARCH ARTICLE OPEN ACCESS

Friendship With Immigrants and Inclusive Policies Correspond to More Positive Perceptions of Immigrants: A Longitudinal Multilevel Analysis Across North America and Europe

Judit Kende^{1,2} | Luca Feher¹ | Linda R. Tropp³ | Eva G. T. Green⁴ | Dirk Jacobs⁵ | Olivier Klein¹

¹Institute of Psychology, Université libre de Bruxelles, Brussels, Belgium | ²Department of Social Psychology, Tilburg University, Tilburg, The Netherlands | ³Department of Psychological and Brain Sciences, University of Massachusetts Amherst, Amherst, Massachusetts, USA | ⁴Institute of Psychology, University of Lausanne, Lausanne, Switzerland | ⁵Institute of Sociology, Université libre de Bruxelles, Brussels, Belgium

Correspondence: Judit Kende (j.kende@tilburguniversity.edu)

Received: 19 July 2024 | **Accepted:** 2 December 2024

Funding: This project has received funding awarded to Judit Kende from the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement no. 801505.

Keywords: immigration | inclusion | integration policies | intergroup friendship | perceptions of immigrants

ABSTRACT

Relational and societal exclusion of immigrants in Western countries fuels negative perceptions of immigrants among non-migrants. We investigated how relational and societal inclusion in the form of friendship and immigrant integration policies jointly relate to perceptions of immigrants. We conducted a longitudinal multilevel analysis drawing on probability samples of non-migrants from the Transatlantic Trends Survey ($N = 27,513$) in nine North American and European countries over 5 years. Extending prior scholarship, we provide longitudinal evidence that more inclusive immigrant integration policies correspond to greater numbers of immigrant friends. Greater friendships with immigrants, in turn, corresponded to more positive perceptions of immigrants. Furthermore, we found that exclusive policies predict negative perceptions of immigrants but only among non-migrants who have few immigrant friends. Instead, when non-migrants report more immigrant friends, their perceptions of immigrants are positive regardless of policies. Thus, societal inclusion is related to stronger relational inclusion, but once intergroup friendships are established, societal exclusion is less consequential.

1 | Introduction

Humans have always migrated, but immigration regularly provokes tensions in Western societies (de Haas et al. 2019). Non-migrants (i.e., nationals who were born in the country where they live) often hold negative views of immigrants and exclude them, thereby creating tensions in society (Craig, Rucker, and Richeson 2017; Hainmueller and Hopkins 2014). How could these negative perceptions of immigrants be improved? Some work suggests

that inclusion at the relational level (e.g., friendships with immigrants) can foster more positive perceptions of immigrants (Crocetti et al. 2021). Another line of work indicates that inclusion at the societal level (e.g., inclusive immigrant integration policies) also corresponds to more positive perceptions of immigrants (Guimond et al. 2013; Huo et al. 2018; Kende et al. 2022; Schlueter, Meuleman, and Davidov 2013). Research examining these two processes together is scarce and tends to be cross-sectional in nature. The present research fills this gap by investigating how

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial](https://creativecommons.org/licenses/by-nc/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2024 The Author(s). *European Journal of Social Psychology* published by John Wiley & Sons Ltd.

relational and societal inclusion jointly relate to perceptions of immigrants using longitudinal multilevel analysis to investigate the interplay between friendship with immigrants and immigrant integration policies over time.

Immigrants are included in society to varying degrees, with relational, political, economic or symbolic barriers separating non-migrants and immigrants more or less strongly (Alba and Foner 2014; Safi 2020). Close relationships such as friendships with immigrants exemplify the relational inclusion of immigrants. According to intergroup contact theory, interactions between members of different groups can promote positive perceptions and attitudes (Allport 1954; Pettigrew and Tropp 2006). In line with this, intergroup friendship is consistently linked to improved perceptions and attitudes (Davies et al. 2011). Specifically, friendship with immigrants is also related to more positive perceptions of them (Sønderskov and Thomsen 2015; Titzmann, Brenick, and Silbereisen 2015). *Therefore, we expect that non-migrants' friendships with immigrants will correspond to their more positive perceptions of immigrants (H1).*

Beyond cross-group ties at the relational level, immigrant integration policies at the societal level can act either as facilitators or barriers to inclusion for immigrants in the host society (Bloemraad et al. 2023). Such policies can include immigrants by granting them access and rights comparable to non-migrants, or they can exclude immigrants by restricting immigrant rights. These policies are consequential in a symbolic and material sense (Huo et al. 2018; Kende et al. 2022; Safi 2020). On the one hand, inclusive policies facilitate symbolic inclusion because they communicate that policy-makers see immigrants as insiders. On the other hand, such policies promote material inclusion because they enable immigrants to improve their socio-economic position and facilitate their political participation, thus allowing immigrants to occupy societal positions comparable to non-migrants. For example, one form of inclusion consists of being employed in legal, paid work. Inclusive labour market policies enable immigrants to access such occupations more easily (Hager, Hilbig, and Riaz 2023; Marbach, Hainmueller, and Hangartner 2023). In turn, when immigrants work in legal, paid jobs, non-migrants will view them more positively (Hainmueller and Hopkins 2015; Sobolewska, Galandini, and Lessard-Phillips 2017).

Consistent with this line of work, studies have documented that more inclusive policies relate to more positive perceptions of immigrants, though such studies of actual policies remained largely cross-sectional (Callens and Meuleman 2016; Kesler and Bloemraad 2010; Schlueter, Meuleman, and Davidov 2013). To our knowledge, only two survey studies have investigated longitudinal policy effects; these two survey studies provide converging evidence that changes towards more inclusive policies relate to more positive perceptions of immigrants, yet both of these studies were restricted to the European context (Kende et al. 2024; Schlueter, Meuleman, and Davidov 2013). Experimental studies tend to show largely beneficial policy effects (Guimond et al. 2013; Huo et al. 2018), though one recent study documented that majority members had more positive perceptions of immigrants when experimental vignettes described restrictive policy changes (Neureiter 2022). *Because most prior research shows beneficial policy effects, we expect that more inclusive policies will be related to more positive perceptions of immigrants (H2).*

When policies are more inclusive, relational inclusion might also be easier, and non-migrants may make more immigrant friends. Similarly to how symbolic and material inclusion impacts perceptions of immigrants, more inclusive policies may also increase willingness and opportunities for friendship. Symbolic inclusion communicates that immigrants are insiders and therefore reduces normative barriers to establishing friendships with immigrants (Bloemraad et al. 2023). Material inclusion reduces educational and occupational segregation, thereby increasing opportunities for friendship (Filindra, Blanding, and Coll 2011; Hager, Hilbig, and Riaz 2023; Ham, Song, and Yang 2020; Marbach, Hainmueller, and Hangartner 2023; Platt, Polavieja, and Radl 2021). To date, only a few studies have demonstrated that more inclusive policy contexts relate to contact or cross-group friendships (Kauff et al. 2021). One example in German schools suggests that, when institutional boundaries are more inclusive, students without an immigration background have more friends with an immigration background (Kruse and Kroneberg 2019). Another example shows that when national immigrant integration policies across European countries are more inclusive, non-migrants report more contact with immigrants (Green et al. 2020). Additionally, when national anti-discrimination policies are stronger in European countries, ethnic majority group members (not necessarily without a migration background) have also been shown to engage in more contact with immigrants (Kauff et al. 2023). Thus, when national immigrant integration policies are more inclusive, non-migrants appear more likely to engage in close contact with immigrants. *In line with these prior cross-sectional studies, we expect that when policies are more inclusive, non-migrants will report more friendships with immigrants (H3).¹ We extend previous cross-sectional policy research by investigating the impact of policies on friendship over time.*

Yet integration policies may also impact the effects of friendships with immigrants. Does having immigrant friends engender more positive perceptions of immigrants even when the surrounding integration policies are exclusive? To date, relational and societal inclusion have largely been investigated separately. In addition, the handful of studies on the topic provide contrasting evidence on their interplay (Tropp and Dehron 2023). Because there are only a few studies available, we broaden the scope of our review here to include policies as well as norms as parallel facets of societal inclusion. On the one hand, cross-national surveys show that contact is related to reduced prejudice when policies or norms are inclusive in a country but that contact reduces prejudice less effectively than when they are exclusive (Green et al. 2020; Kende et al. 2018). On the other hand, cross-national and national survey and experimental evidence demonstrate that friendship or contact reduces prejudice just as well, or even more effectively when norms are exclusive (Sønderskov and Thomsen 2015; Visintin et al. 2019). In these studies, three divergent theoretical explanations have been proposed on why and how societal inclusion could impact contact situations. First, when norms and policies are exclusive, intergroup contact experiences will not fulfil the optimal conditions proposed by Allport (1954) for improving attitudes and perceptions, these conditions being contact among equals, authority sanction, cooperation and common goals (Green et al. 2020; Kende et al. 2018). More specifically, with stronger symbolic exclusion, intergroup contact experiences are not sanctioned by authorities, and with stronger material exclusion, immigrants are in less favourable

positions in society than non-migrants; therefore, contact does not occur among equals. In turn, these suboptimal contact situations are less effective in improving attitudes and perceptions than optimal contact situations that are sanctioned by the authorities and take place among equals. Second, exclusive norms could make intergroup differences salient and therefore also heighten non-migrants' awareness of immigrants' position in the societal hierarchy (Sønderskov and Thomsen 2015). This heightened salience could increase the effectiveness of intergroup contact because it increases the probability that positive contact experiences with one immigrant generalize to the whole immigrant out-group. Third, positive contact experiences could buffer the effect of strong symbolic or material exclusion because personal experiences influence perceptions more than distant norms (Visintin et al. 2019). Thus, previous research has provided some evidence that the relational and societal levels of inclusion interact. Because the existing empirical evidence and theoretical explanations diverge, we merely explore how policies relate to the association of intergroup friendships with perceptions of immigrants. *Importantly, none of the previous studies investigated societal inclusion such as policies over time; therefore, they could not draw robust conclusions about the role of policies. Our research addresses this shortcoming and investigates over time how immigrant integration policies and friendship jointly relate to perceptions of immigrants among non-migrants.*

The present research investigates how two distinct facets of immigrant inclusion—friendships with immigrants at the relational level and inclusive policies at the societal level—may independently and jointly shape perceptions of immigrants among non-migrants. We expect that friendship with immigrants will be related to more positive perceptions of immigrants (H1). Furthermore, we expect that changes towards more inclusive policies will be related to more positive perceptions (H2) and more immigrant friends (H3). Finally, we explore whether policies shape the association of intergroup friendship with perceptions of immigrants. We implement longitudinal multilevel analysis drawing on probability samples of non-migrants from the Transatlantic Trends Survey ($N = 27,513$) in nine North American and European countries (Canada, France, Germany, Italy, the Netherlands, Poland, Spain, the United Kingdom and the United States of America) over 5 years. We go beyond previous cross-sectional policy research, providing contrasting evidence on how relational and societal inclusion jointly relate to perceptions of immigrants by investigating the impact of policies over time, thus allowing us to draw robust conclusions about policy effects.

2 | Method

2.1 | Data

For the purposes of our research, we sought data that were (a) collected over time for several years from nationally representative samples, (b) included measures of contact or friendship with immigrants and perceptions of immigrants gathered at the individual level and (c) could be matched to context-level data on immigrant integration policies. After searching repositories of secondary data, we identified the Transatlantic Trends: Immigration dataset as the only dataset that conformed to these three criteria (German Marshall Fund of the United States (GMF),

Washington, USA and Isernia 2013a, 2013b, 2013c, 2014; Isernia 2009). More specifically, the Transatlantic Trends: Immigration survey was collected annually among nationally representative samples of approximately 1000 respondents in each year and each country. The friendship and immigration perceptions variables were available in five waves (2008, 2009, 2010, 2011 and 2013). We could match the survey data over this 5-year period to the Migrant Integration Policy Index (MIPEX), the most comprehensive and reliable cross-national policy index, in nine North American and European countries (Solano and Huddleston 2020).

2.2 | Design

To test our hypotheses, we applied longitudinal multilevel modelling drawing on cross-sectional time-series data following previous research on immigration (Fairbrother 2014; Ramos et al. 2021). Thus, we fitted a three-level multilevel model with participants nested within country-years (e.g., Spain 2008 or Spain 2009) within countries (e.g., all available surveys from Spain). This modelling strategy could enable us to analyse both cross-sectional effects by comparing different countries and longitudinal effects by investigating changes within each country. But because data are available only for nine countries, we unfortunately cannot draw meaningful conclusions about the cross-country differences (Bell et al. 2014). Still, we calculated a predictor for the cross-country effect by taking the mean of policies across all available years for each country (at the country level). Then, to capture the effect of change within each country, we computed a longitudinal predictor. Several survey samples are available in each country with altogether 34 country-year level units, allowing us to test the relation of changes in policies with the friendship-perceptions association. To do so, we subtracted the year-specific policies in each country from its mean of policies across all available years (at the country-year level). Based on previous studies with a similar design, we utilized the within-country change coefficient to assess the short-term effect of changes in policies (Ramos et al. 2019, 2021).

We implemented several robustness checks to strengthen our argument about the unique role of policies. First, because the Transatlantic Trends survey was collected in September each year, and policies could have changed following the data collection of the survey, we fitted two versions of the final interaction models: We looked at policy effects by matching the policy scores either to the year of the survey or to the year preceding the survey. Additionally, we accounted for the potential influence of various socio-economic factors that could influence perceptions of immigrants to provide evidence for the particular effect of integration policies. More specifically, we replicated the results when including the following country-level variables as controls: unemployment rate, the proportion of immigrants, GINI and GDP (matching respective survey years) (Hainmueller and Hopkins 2014; OECD 2020; The World Bank 2020). Furthermore, we tested integration policy effects when including an index of general rights and liberties to ensure that we are measuring specifically the effect of immigrant rights and not the extent of rights more broadly (Freedom House 2014). Likewise, age, gender and level of education were included as individual-level control variables in the model (Ceobanu and Escandell 2010). We also included political orientation and parents' place of birth as controls in

further exploratory analysis. Finally, we replicated the analysis excluding Poland as a country with a markedly different immigration history and situation at the time of the survey. The analysis plan for this study was preregistered and is available at² https://osf.io/akvt5/?view_only=54fa45c622cc4373905d5437db89dc5d.

2.3 | Sample

We sampled non-migrants as participants, $N = 27,153$, in the following nine countries: Canada, France, Germany, Italy, the Netherlands, Poland, Spain, the United Kingdom and the United States of America. Participants were selected on the basis of being born in the country of the survey. The sample size was determined by the available data (46.3% male, age $M = 50.13$, $SD = 17.04$) (see Table S1 for the number of participants in each country in each year).

2.4 | Measures

Perceptions of immigrants were computed from commonly used items measuring this topic (Billiet and Meuleman 2012; Hainmueller and Hopkins 2014). Example items are 'Immigrants are a burden on social services', 'Immigrants take jobs away from native born (NATIONALITY)', 'Immigrants are a threat to our national culture' and 'Immigrants enrich our culture (reverse coded)'. The majority of items were phrased so that higher scores corresponded to more negative perceptions of immigrants; therefore, higher scores were coded to indicate negative perceptions of immigrants. Positively worded items were reverse coded. Answers ranged from 1 = strongly agree to 4 = strongly disagree ($M = 2.32$, $SD = 0.84$). The items formed reliable scales (Cronbach α from 0.57 to 0.80 in different years and countries).³ Please see Tables S2 and S3 for a detailed description of the selection of the items, the items themselves and reliabilities per year per country.

Friendship with immigrants was measured with one item with slight variations in some years: 'Do you have any friends who were born in another country who now live in (COUNTRY)?' on a scale of 1–3, 1 being 'no, none at all', 2 being 'yes, a few' and 3 being 'yes, several'. ($M = 1.75$, $SD = 0.69$). Please see Table S4 for the items.

Immigrant integration policies were measured with the MIPEX (Solano and Huddleston 2020). The MIPEX is the most detailed and extensive index of immigrant integration policies with the largest number of sub-indicators and broadest coverage of policy fields (Helbling 2013). More specifically, the MIPEX is a country-level index of immigrant integration policies that simultaneously considers 167 policy indicators from eight policy domains (i.e., health care, education, political participation, labour market mobility, antidiscrimination laws, permanent residence, access to nationality and family reunion). The indicators measure whether immigrants have comparable rights and access to services in these policy domains vis-à-vis non-migrants. The index is based on expert surveys in each country and has been updated yearly since 2007. Furthermore, overall it forms a reliable scale, $\alpha = 0.93$ (Ruedin 2011). For these reasons, it has been widely used in comparative sociological and social psychological research (e.g., Callens and Meuleman 2016; Schlueter, Meuleman, and Davidov 2013). Higher scores indicate more inclusive policies, ranging

from 0 to 100.⁴ Scores range from 33.59 to 80.66 ($M = 59.96$, $SD = 9.07$) (see Table S5 for yearly policy scores per country).

2.5 | Analytical Approach

As described above in the design section, we fitted a three-level multilevel model with participants nested within country-years within countries. The analysis was run in consecutive steps starting from the null model including only perceptions of immigrants ('Null model'); secondly, including individual-level control variables (i.e., age, gender and education) and the main individual-level predictor, friendship, in one step ('Friendship main effect' model) (Hypothesis 1) and thirdly, including the main effect of policy change ('Policy change main effect' model) (Hypothesis 2). To test Hypothesis 3, we fitted a separate three-level model with the same model specification but with friendship as the outcome variable. We then tested a mediation model with policy change predicting perceptions of immigrants through friendships. To explore the interplay of policies and friendship, we tested the cross-level interaction between the within-country change in policies (country-year level), friendship and perceptions of immigrants (individual level) ('Friendship \times Policy change interaction' models). Finally, we implemented the robustness checks (see Section 2.2).

The data that support the findings of this study are openly available in OSF at <https://osf.io/Z9K7H/>, reference number 10.17605/OSF.IO/Z9K7H.

We included data from participants who had valid responses on the outcome and control variables and did not impute missing values.

Table 1 presents the correlations among the individual-level variables.

3 | Results

3.1 | Preliminary Analysis

First, we describe the range, rank and changes in immigrant integration policies across the countries during our study period to contextualize our findings (see Table S5 for policy scores per country per year). Policy scores ranged from 33.59 in Poland in 2008 to 80.66 in Canada in 2009 and 2010. The rest of the European countries scored higher than Poland throughout the study period with scores ranging from 54.08 in Spain in 2009 and 2010 to 69.29 in the Netherlands in 2009. The United States consistently scored between European countries and Canada at 72.34. The policies remained stable throughout the study period in Canada and the United States. In contrast, the scores have changed in every European country. The largest change towards more inclusive policies took place in Poland with a 12.33-point improvement, whereas the highest change towards more exclusive policies happened in the Netherlands with a 13.86-point exacerbation.

3.2 | Main Findings

Table 2 presents the results of the multilevel models for non-migrants' perceptions of immigrants at the individual level.

TABLE 1 | Correlations among the individual-level variables.

	1	2	3	4	5
Gender (1)	—				
Age (2)	0.029 ^a	—			
Education (3)	-0.042 ^a	-0.017 ^a	—		
Friendship with immigrants (4)	-0.067 ^a	-0.164 ^a	0.139 ^a	—	
Perceptions of immigrants (5)	0.017 ^a	0.073 ^a	-0.139 ^a	-0.189 ^a	—

Note: Gender is coded as 1 = male and 2 = female. Higher scores correspond, respectively, to higher age, higher levels of education, more immigrant friends and more negative perceptions of immigrants.

^aCorrelation is significant at the 0.01 level (two-tailed).

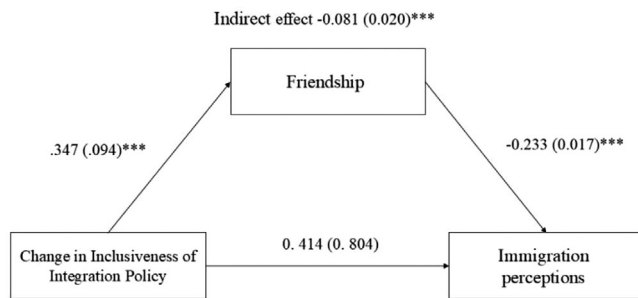


FIGURE 1 | A multilevel mediation model presenting the relation between change in immigrant integration policies and perceptions of immigrants as mediated by friendship with the immigrants. ***Correlation is significant at the 0.001 level (two-tailed).

The null model showed that the variance was significant at the individual, country-year and country levels ('Null model'). Perceptions of immigrants were more negative among older participants and less educated people, but they did not differ by gender. In line with Hypothesis 1, having more immigrant friends was related to less negative perceptions of immigrants ('Friendship main effect' model). In contrast with Hypothesis 2, policy change in itself was not related to perceptions ('Policy change main effect' model).⁵

Additional analysis with friendship with immigrants as the dependent variable showed that, in line with Hypothesis 3, more inclusive policy change was related to higher numbers of immigrant friends (Table S6). Building on these findings, we also explored in a multilevel mediation model whether more inclusive policy change impacts perceptions of immigrants through friendship with immigrants (Preacher, Zyphur, and Zhang 2010). The effect of policy change on friendship and of friendship on perceptions was both significant. We also found a significant indirect effect of integration policy change on perceptions through friendship. This pattern, even in the absence of a total effect, suggests that policy change impacts perceptions of immigrants indirectly through friendship (Figure 1) (Igartua and Hayes 2021; Rucker et al. 2011).⁶

Finally, when investigating how policies and friendship jointly shape perceptions of immigrants, we found that the cross-level interaction between policy change and friendship was significant ('Policy change interaction' model in Table 2).^{7,8} To

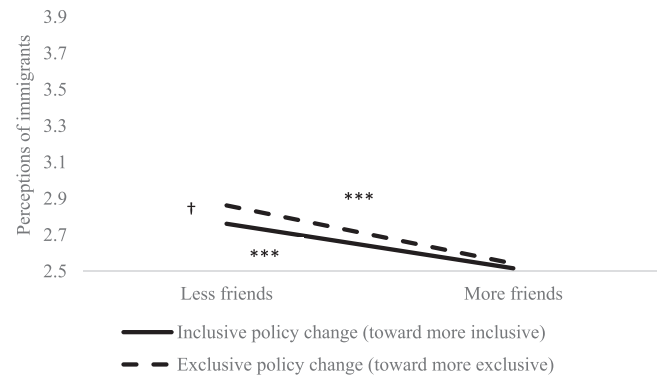


FIGURE 2 | Immigrant integration policy change and friendship with immigrants predicting perceptions of immigrants among non-migrants. ***Correlation is significant at the 0.001 level (two-tailed). †Correlation is significant at the 0.1 level (two-tailed).

interpret the interplay between policy change and friendship, we plotted this interaction. When decomposing the interaction, we defined inclusive policy change (change towards more inclusive) and having many friends as plus one standard deviation from the respective mean, whereas exclusive policy change (change towards more exclusive) and having few immigrant friends corresponded to minus one standard deviation from the respective mean.

Overall, having more immigrant friends was related to less negative perceptions of immigrants (Figure 2). However, when policies became more exclusionary, among those with less immigrant friends, perceptions of immigrants got more negative. For non-migrants with more immigrant friends, the change towards more exclusive policies did not affect perceptions of immigrants. In other words, those with more immigrant friends had less negative perceptions of immigrants independent of policies becoming more exclusive or inclusive. Furthermore, as the figure shows, the association of friendship with perceptions was stronger when policies were becoming more exclusive as opposed to when policies were becoming more inclusive.

Finally, we implemented several robustness checks and replicated the final interaction using policy scores 1 year prior to the survey, and over and above the effects of unemployment rates, the proportion of immigrants, the GINI index, GDP and the Freedom House index of rights and liberties (Tables 3 and 4). Interestingly,

TABLE 2 | Multilevel models predicting non-migrants' perceptions of immigrants, including main and interaction effects of friendship with immigrants and changes in immigrant integration policies.

	Null model			Friendship			Policy change main effect			Policy change interaction		
	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p
Individual level												
Age				0.018 (0.009)	0.002, 0.034	0.056	0.018 (0.009)	0.003, 0.033	0.054	0.018 (0.009)	0.003, 0.034	0.052
Gender				-0.004 (0.015)	-0.028, 0.020	0.788						
Education				-0.014 (0.002)	-0.018, -0.010	0.000	-0.014 (0.002)	-0.018, -0.010	0.000	-0.014 (0.002)	-0.018, -0.010	0.000
Friendship (FR)				-0.208 (0.014)	-0.230, -0.185	0.000	-0.208 (0.013)	-0.230, -0.186	0.000	-0.206 (0.014)	-0.229, -0.182	0.000
Residual variance	0.651 (0.038)	0.589, 0.713	0.000	0.617 (0.034)	0.562, 0.672	0.000	0.617 (0.034)	0.562, 0.672	0.000	0.615 (0.034)	0.560, 0.671	0.000
Country-year level												
Integration policy change (POL)							0.380 (0.803)	-0.940, 1.701	0.636	-1.044 (0.884)	-2.498, 0.410	0.238
FR × POL										0.901 (0.164)	0.631, 1.171	0.000
Residual variance	0.024 (0.003)	0.018, 0.029	0.000	0.023 (0.004)	0.017, 0.029	0.000	0.058 (0.013)	0.037, 0.080	0.000	0.070 (0.019)	0.038, 0.102	0.000
Country level												
Residual variance	0.037 (0.011)	0.019, 0.056	0.001	0.036 (0.012)	0.015, 0.056	0.004	fixed	fixed	fixed	fixed	fixed	fixed
Model fit												
Number of parameters	4			8			8			9		
-2 Log-likelihood	65,528.23			64,069.334			64,083.886			64,053.928		
Akaike (AIC)	65,536.227			64,085.334			64,097.887			64,071.928		
Bayesian (BIC)	65,569.064			64,151.008			64,155.351			64,145.812		
Sample-size adjusted BIC	65,556.352			64,125.584			64,133.106			64,117.210		

Note: Gender is coded as 1 = male and 2 = female. Higher scores correspond, respectively, to higher age, levels of education, more immigrant friends and more negative perceptions of immigrants. Integration policy change is coded so that higher scores correspond to change towards more inclusive policies.

TABLE 3 | Multilevel models predicting non-migrant's perceptions of immigrants from the interaction of friendship with immigrants and changes in immigrant integration policies, including context-level controls indicated in column headers and referred to as 'Control' in each model (Part 1).

	Policies 1 year earlier			Unemployment rate			Immigrant %		
	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p
Individual level									
Age	0.018 (0.010)	0.002, 0.034	0.06	0.018 (0.009)	0.003, 0.034	0.052	0.018 (0.009)	0.003, 0.034	0.052
Gender									
Education	-0.015 (0.002)	-0.018, -0.011	0.000	-0.014 (0.002)	-0.018, -0.010	0.000	-0.014 (0.002)	-0.018, -0.010	0.000
Friendship (FR)	-0.205 (0.014)	-0.229, -0.181	0.000	-0.205 (0.014)	-0.229, -0.182	0.000	-0.205 (0.014)	-0.229, -0.182	0.000
Residual variance	0.605 (0.031)	0.555, 0.656	0.000	0.615 (0.034)	0.560, 0.671	0.000	0.615 (0.034)	0.560, 0.671	0.000
Country-year level									
Integration policy change (POL)	-2.244 (2.296)	-6.020, 1.533	0.328	-0.701 (0.776)	-1.978, 0.576	0.366	-1.005 (0.910)	-2.501, 0.492	0.269
FR x POL	1.301 (0.459)	0.547, 2.056	0.005	0.902 (0.165)	0.631, 1.173	0.000	0.900 (0.164)	0.630, 1.171	0.000
Control									
Residual variance	0.066 (0.021)	0.032, 0.100	0.001	-0.003 (0.002)	-0.006, 0.000	0.133	0.000 (0.000)	0.000, 0.000	0.006
Country level									
Residual variance	fixed			fixed			fixed		
Model fit									
Number of parameters	9			10			10		
-2 Log-likelihood	61,592.344			64,052.30			64,052.37		
Akaike (AIC)	61,610.344			64,072.3			64,072.367		
Bayesian (BIC)	61,683.937			64,154.392			64,154.459		
Sample-size adjusted BIC	61,655.335			64,122.612			64,122.679		

Note: Gender is coded as 1 = male and 2 = female. Higher scores correspond, respectively, to higher age, higher levels of education, more immigrant friends and more negative perceptions of immigrants. Integration policy change is coded so that higher scores correspond to change towards more inclusive policies.

TABLE 4 | Multilevel models predicting non-migrant's perceptions of immigrants from the interaction of friendship with immigrants and changes in immigrant integration policies, including context-level controls referred to as 'Control' in each model (Part 2).

	GINI				GDP				Rights and Liberties			
	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p
Individual level												
Age	0.018 (0.009)	0.003, 0.034	0.052	0.018 (0.009)	0.003, 0.034	0.052	0.018 (0.009)	0.003, 0.034	0.052	0.018 (0.009)	0.003, 0.034	0.052
Gender												
Education	-0.014 (0.002)	-0.018, -0.010	0.000	-0.014 (0.002)	-0.018, -0.010	0.000	-0.014 (0.002)	-0.018, -0.010	0.000	-0.014 (0.002)	-0.018, -0.010	0.000
Friendship (FR)	-0.206 (0.014)	-0.229, -0.182	0.000	-0.206 (0.014)	-0.229, -0.182	0.000	-0.206 (0.015)	-0.229, -0.182	0.000	-0.206 (0.015)	-0.229, -0.182	0.000
Residual variance	0.615 (0.034)	0.560, 0.671	0.000	0.615 (0.034)	0.560, 0.671	0.000	0.615 (0.034)	0.560, 0.671	0.000	0.615 (0.034)	0.560, 0.671	0.000
Country-year level												
Integration policy change (POL)	-1.326 (0.860)	-2.740, 0.089	0.123	-1.041 (0.868)	-2.470, 0.388	0.231	-1.040 (0.898)	-2.516, 0.436	0.247	-1.040 (0.898)	-2.516, 0.436	0.247
FR × POL	0.905 (0.165)	0.634, 1.176	0.000	0.901 (0.164)	0.631, 1.172	0.000	0.900 (0.165)	0.629, 1.171	0.000	0.900 (0.165)	0.629, 1.171	0.000
Control	0.050 (0.007)	0.039, 0.060	0.000	-0.008 (0.052)	-0.094, 0.077	0.876	0.005 (0.025)	-0.035, 0.046	0.828	0.005 (0.025)	-0.035, 0.046	0.828
Residual variance	0.046 (0.015)	0.022, 0.070	0.002	0.070 (0.020)	0.038, 0.102	0.000	0.070 (0.020)	0.037, 0.103	0.001	0.070 (0.020)	0.037, 0.103	0.001
Country level												
Residual variance	fixed			fixed			fixed			fixed		
Model fit												
Number of parameters	10			10			10			10		
-2 Log-likelihood	64,040.718			64,053.902			64,053.816			64,053.816		
Akaike (AIC)	64,060.718			64,073.901			64,073.817			64,073.817		
Bayesian (BIC)	64,142.81			64,155.994			64,155.909			64,155.909		
Sample-size adjusted BIC	64,111.03			64,124.214			64,124.13			64,124.13		

Note: Gender is coded as 1 = male and 2 = female. Higher scores correspond, respectively, to higher age, higher levels of education, more immigrant friends and more negative perceptions of immigrants. Integration policy change is coded so that higher scores correspond to change towards more inclusive policies.

in the models with policy changes 1 year prior to the measurement of perceptions, the direct policy effect on perceptions is twice as large as in the main model where we examine policy change and perceptions in the same year. We also replicated the final interaction including parents' place of birth and political orientation as controls one by one (Table 5). The interaction remained significant after including both controls, and respondents with an immigrant background (at least one parent born outside the country) and more left-leaning participants reported less negative perceptions of immigrants.⁹ Lastly, we ran the final interaction model excluding Poland, and the results remained the same (Table 5).

4 | Discussion

Relational and societal exclusion often separates non-migrants and immigrants in Western countries, fuelling negative perceptions of immigrants. Both relational and societal inclusion in the form of friendship and inclusive immigrant integration policies are associated with more positive perceptions of immigrants (Crocetti et al. 2021; Guimond et al. 2013; Huo et al. 2018; Kende et al. 2022; Kesler and Bloemraad 2010; Schlueter, Meuleman, and Davidov 2013). However, previous research has largely investigated relational and societal inclusion separately, and the handful of previous studies on their interplay have provided contrasting evidence (Green et al. 2020; Kende et al. 2018; Sønderskov and Thomsen 2015; Tropp and Dehron 2023; Visintin et al. 2019). Therefore, in this paper, we investigate relational and societal inclusion together and ask whether friendship with immigrants is still associated with more positive perceptions of immigrants among non-migrants when immigrant integration policies are exclusive. We extend previous research by investigating the interplay of friendship and policies and by providing longitudinal evidence on the association of policies with friendship and perceptions of immigrants. To answer these questions, we drew on the Transatlantic Trends Survey and analysed the responses from nationally representative samples of non-migrants ($N = 27,513$) in nine North American and European countries over 5 years. In line with our expectations, we found that friendship with immigrants was related to more positive perceptions of immigrants (H1). Contrary to our expectations, inclusive policy change did not directly relate to more positive perceptions of immigrants (H2), but change towards more inclusive immigrant integration policies was associated with a higher number of immigrant friends among non-migrants (H3), and friendship in turn was related to more positive perceptions.¹⁰ In addition, we found that for those non-migrants who have few immigrant friends, exclusive policies relate to negative perceptions and inclusive policies are associated with more positive perceptions of immigrants. In contrast, when non-migrants have more immigrant friends, their perceptions of immigrants are positive regardless of policies.

Our results provide evidence that inclusive immigrant integration policy change is associated with more positive relations with immigrants. Although we found no significant association of policy change with perceptions of immigrants in themselves, the results showed that inclusive policy change is associated with having more immigrant friends and having more friends in turn is related to more positive perceptions of immigrants. These findings thus add to a handful of cross-sectional studies

documenting how inclusive societal and policy conditions are associated with engaging in intergroup friendship and contact (Green et al. 2020; Kauff et al. 2023; Kruse and Kroneberg 2019). In addition, our findings align with a consistent line of research on intergroup friendship (Crocetti et al. 2021; Davies et al. 2011). Thus, we contribute to the scarce available evidence that societal inclusion in the form of immigrant integration policies facilitates relational inclusion in the form of friendship. Crucially, with our longitudinal design, we go beyond previous research and provide robust evidence of the role of policies as a form of societal inclusion.

The null effect of immigrant integration policies on perceptions of immigrants contrasts with largely consistent cross-sectional findings in previous work and two longitudinal studies (Callens and Meuleman 2016; Kende et al. 2024, 2022; Kesler and Bloemraad 2010; Schlueter, Meuleman, and Davidov 2013). This divergence from previous findings might be explained by the different kind of data and analysis used in previous work compared to ours. Previous studies typically compared 20–30 countries, most often comparing countries across the whole of Europe, and they investigated differences between these countries in a given year. In contrast, our surveys covered North American and largely Western European countries (with the exception of Poland), and we examined policy changes within these countries over 5 years. Thus these previous studies compared differences in inclusion between countries, whereas our study documents the effect of policy changes within countries. Because the number of countries in our data did not suffice for cross-country analysis, we cannot directly compare our results with previous cross-sectional studies. Therefore, further work is necessary to clearly establish the role of real-life policies in improving perceptions of immigrants.

What could explain the fact that we find a significant association between policy change and friendship but not a direct policy association with perceptions? First, a suppression effect might explain why we did not find a total effect. Indeed, we observe a larger (insignificant) direct effect of policy change in the mediation model than the non-significant policy-attitudes effect in the main effects model, indicating such a suppression effect (Igartua and Hayes 2021; Rucker et al. 2011). It is therefore conceivable that, while friendship fosters more positive perceptions, changes in the inclusiveness of policies also exert an opposite effect through another unmeasured mediator. Speculatively, negative contact with immigrants could be such a mediator (Kotzur and Wagner 2021; Laurence and Bentley 2018). As immigrants occupy more egalitarian positions in society, empowered by inclusive policy changes, initial interactions among immigrants and non-migrants could be tense and competitive (Hadj-Abdou and Katsiaficas 2023; Ramos et al. 2019). Secondly, besides such possible suppression effects, these discrepant findings potentially result from how different policy effects unfold over time. More specifically, some policy effects exert impact relatively quickly, whereas other policy effects take longer. As an example of rapid impact, when federal and local governments in Germany eased restrictions on the entrance of newcomers to the labour market, the employment rate of immigrants increased immediately (and beneficial effects persisted over 20 years) (Hager, Hilbig, and Riaz 2023; Marbach, Hainmueller, and Hangartner 2023). Similarly, stronger anti-discrimination policies also contributed to higher employment rates among immigrants (Platt, Polavieja, and Radl

TABLE 5 | Multilevel models predicting non-migrant's perceptions of friendship with immigrants and changes in immigrant integration policies, including individual-level controls referred to as 'Control' in each model and excluding Poland.

	Parents' place of birth			Political orientation			Excluding Poland		
	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p	B (S.E.)	95% CI	p
Individual level									
Age	0.017 (0.009)	0.002, 0.033	0.058	0.016 (0.010)	-0.001, 0.032	0.121	0.017 (0.010)	0.000, 0.033	0.096
Gender									
Education	-0.014 (0.002)	-0.018, -0.010	0.000	-0.013 (0.002)	-0.016, -0.009	0.000	-0.014 (0.003)	-0.019, -0.010	0.000
Friendship (FR)	-0.201 (0.014)	-0.229, -0.182	0.000	-0.175 (0.014)	-0.199, -0.151	0.000	-0.213 (0.013)	-0.234, -0.192	0.000
Control	-0.115 (0.029)	-0.162, -0.067	0.000	0.121 (0.012)	0.101, 0.142	0.000			
Residual variance	0.615 (0.033)	0.559, 0.670	0.000	0.583 (0.033)	0.530, 0.637	0.000	0.633 (0.031)	0.583, 0.684	0.000
Country-year level									
Integration policy change (POL)	-1.025 (0.860)	-2.441, 0.390	0.233	-1.420 (0.677)	-2.533, -0.306	0.036	-1.388 (1.007)	-3.045, 0.269	0.168
FR × POL	0.873 (0.164)	0.604, 1.142	0.000	1.176 (0.176)	0.887, 1.464	0.000	0.950 (0.178)	0.656, 1.244	0.000
Residual variance	0.069 (0.019)	0.038, 0.101	0.000	0.063 (0.017)	0.035, 0.090	0.000	0.072 (0.019)	0.040, 0.104	0.000
Country level									
Residual variance	fixed			fixed			fixed		
Model fit									
Number of parameters	10			10			9		
-2 Log-likelihood	63,887.728			54,714.852			60,503.014		
Akaike (AIC)	63,907.727			54,734.852			60,521.014		
Bayesian (BIC)	63,989.799			54,815.596			60,594.275		
Sample-size adjusted BIC	63,958.019			54,783.816			60,565.673		

Note: Parents' place of birth is coded as 1 = both parents born in the country and 2 = at least one parent born in another country. Gender is coded as 1 = male and 2 = female. Higher scores correspond, respectively, to higher age, higher levels of education, more immigrant friends and more negative perceptions of immigrants. Integration policy change is coded so that higher scores correspond to change towards more inclusive policies.

2021). Increased labour market integration could mean that more non-migrants work together with immigrants. In turn, working together with immigrants can foster friendships if immigrants and non-migrants regularly encounter each other at work in similar positions (Andersson and Dehdari 2021). However, as building friendships takes time, the labour market integration of immigrants might only impact non-migrants' perceptions over some months or years. Thinking beyond labour market policies, some effects of more inclusive educational policies also unfold over a longer time span. For example, more inclusive policies reduce the dropout rate of children of immigrants in US states and improve the educational performance of immigrant children across OECD countries (Filindra, Blanding, and Coll 2011; Ham, Song, and Yang 2020). Thus, in the long run, more inclusive educational policies facilitate the insertion of immigrants in the labour market on a more equal footing, but these policy effects unfold over decades. In support of this argument that the policy impact on perceptions manifests later, when we examine the association of policy changes 1 year prior to the measurement with perceptions, the direct policy association is twice as large as when we examine policy change and perceptions in the same year. Although our data does not allow to lag policy effects for several years to capture longer-term effects, further longitudinal studies focusing on policy effects on friendship (or contact) and perceptions could shed more light on these questions.

Turning to the interplay of friendship and policies, we found that exclusive policies fuel negative perceptions, but only for those non-migrants who have few immigrant friends. In contrast, non-migrants who have more immigrant friends have positive perceptions even when policies are exclusive. To increase the robustness of our analysis, we replicated these interaction effects by looking at policies 1 year prior to the survey. Moreover, to provide evidence for the singular effect of immigrant integration policies, we showed that the interaction remains significant when including other contextual factors that could induce negative perceptions such as the unemployment rate, the proportion of immigrants, GINI and GDP (Hainmueller and Hopkins 2014). We also documented the policy effects including an index of general rights and liberties to ensure that we capture the effect of immigrant rights specifically and not rights more generally. Finally, we found that the interaction remains significant when we include survey respondents' parents' place of birth and political orientation. In sum, these additional analyses provide further support for the unique role of immigrant integration policies in shaping immigrant-non-migrant relations. Our results thus align with previous studies showing that friendship or contact can buffer the effect of exclusive norms on prejudice (Sønderskov and Thomsen 2015; Visintin et al. 2019). However, our findings contradict previous work demonstrating that contact reduces prejudice less in these exclusive environments (Green et al. 2020; Kende et al. 2018). A plausible explanation is that we focus on friendship (similar to the Sønderskov and Thomsen (2015) study that showed how friendship buffers the negative effect of context) and not on more casual forms of contact (as Green et al. (2020) and Kende et al. (2018) that demonstrated how contact effects weaken in exclusive contexts). Friendship by definition involves more equal and close relations. In contrast, casual everyday contact situations are more dependent on societal inclusion, both symbolic inclusion such as authority sanction and material inclusion such as equal societal positions. In turn,

how the friendship or more casual contact situations unfold in different societal contexts would impact perceptions differently (Bloemraad et al. 2023; Kende et al. 2022; Safi 2020). Although no secondary data is available that allows us to examine both intergroup friendship and everyday contact over time in their societal context, future research could undertake a meta-analysis examining both friendship and casual contact with immigrants in their policy context to shed more light on these questions.

4.1 | Limitations and Future Directions

Our findings provide clear evidence for the role of policies as a form of societal inclusion, but there were some limitations. We used robust methods drawing on cross-sectional time-series data (Fairbrother 2014; Ramos et al. 2019; Ramos et al. 2021). These methods allowed us to investigate changes in policies, going beyond the bulk of previous cross-sectional policy papers on perceptions of immigrants. Furthermore, we implemented several sets of additional analyses to be able to argue more confidently about the unique role of policies. Yet such analysis does not unequivocally allow for causal interpretation about policy effects: In countries with more positive perceptions of immigrants, it is possible that these perceptions result in more inclusive policies and not vice versa. Meanwhile, a recent study documented that policy changes predict attitude changes but not the other way round, lending more confidence to the suggested direction of effects in the current paper (Kende et al. 2024). Still, it is possible that further endogenous factors impact both policy change and inclusive relations. Furthermore, policy effects impact intergroup relations through various mediating processes. Although we could theorize about these processes, further work is necessary to unpack the mechanisms. For example, although we theorize that inclusive policies facilitate the symbolic and material inclusion of immigrants, it was beyond the scope of the present paper to include measures of symbolic and material inclusion at the societal level such as political communication about immigrants or the economic status of immigrants. Therefore, we recommend that future research unpacks the societal and interpersonal mechanisms that translate inclusive policy change to more inclusive relations with larger datasets. Moreover, we were limited by the available data to a relatively small number of Western countries over a relatively short period of time, to suboptimal friendship measures and to generic items on perceptions of immigrants. Even though high-quality policy indices and surveys including immigration attitude measures are available beyond Western contexts over time, unfortunately no other large-scale dataset includes intergroup friendship or other contact measures over time. Therefore, we suggest that future large-scale surveys also include friendship or contact measures repeatedly and not just in one wave. Furthermore, we suggest that future surveys include composite measures of friendship, unlike the current single-item measure that we used. Although such single-item measures of intergroup friendship are also consistently related to attitudes, scales provide more reliable information and higher effect sizes (Davies et al. 2011). In addition, our friendship measures are self-reported and cross-sectional; therefore, we cannot claim causal relation between friendship and perceptions of immigrants in our study (Levin, Van Laar, and Sidanius 2003). A meta-analysis could address this shortcoming if it included contact interventions with samples from different contexts over

time matched to policy (or other contextual) changes. Finally, the measure of perceptions of immigrants did not differentiate between different groups, though perceptions of immigrants with different ethnic-racial backgrounds and social classes differ (Esses 2021; Hainmueller and Hopkins 2014). We therefore suggest that future large-scale surveys include questions about a range of immigrant groups as well.

5 | Conclusions

Our results imply that policy change is associated with improved intergroup relations (Bloemraad et al. 2023; Tropp and Dehron 2023). The results show that relational and societal inclusion jointly relate to perceptions of immigrants. We argue that this is due to inclusive immigrant integration policies facilitating both symbolic and material inclusion (Huo et al. 2018; Kende et al. 2022; Safi 2020). More specifically, inclusive policies communicate that immigrants are integral parts of society and enable immigrants to occupy societal positions comparable to non-migrants. Through reducing symbolic and material obstacles, more inclusive policies facilitate the establishment of intergroup friendships and thus improve perceptions. Moreover, once intergroup friendships are established, a hostile policy context cannot exacerbate perceptions. Thus, facilitating the inclusion of immigrants through more inclusive policies is a way to improve social cohesion and reduce tensions in society.

Ethics Statement

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data and code necessary to reproduce the analysis are available at: <https://osf.io/Z9K7H/>

Endnotes

¹We did not preregister this hypothesis, please see the Supporting Information for deviations from the preregistration.

²We describe deviations from the pre-registration in the Supporting Information.

³We excluded data from France in 2010, since the reliability was too low ($\alpha = 0.37$).

⁴In this study, we used a version of the policy index excluding health and education policies because there were a large number of missing policy scores on these sub-indices.

⁵Because the policy scores potentially range from 0 to 100 and our key predictor is change in a given year, the policy change scores are small compared to the full range of possible policy scores. Therefore, we divided the policy change scores by 100 in the models to obtain comparable ranges for the policy change score and the dependent variables. The policy change scores in the models thus represent the policy change in percentages of the full range of policy scores from 0 to 100.

⁶In further exploratory analysis, we also tested whether friendship with immigrants is associated with policy change 1 year prior to the survey:

the association was not significant though the confidence interval includes the effect that we find in the main analysis (Table S6).

⁷We fixed the country-level (the level where we did not include predictors) variance to zero in the interaction models. This was necessary because we had only nine contextual units at the country level, yet we were estimating complex models with more than nine parameters. Estimating models with more parameters than contextual units can lead to convergence problems. For the same reason, we removed gender as a non-significant predictor from the more complex models.

⁸Ideally, we would have tested a moderated mediation model where policy change predicts immigration perceptions, and this relationship is both mediated and moderated by friendship. This was unfortunately not possible with the data at hand, as we would have had to estimate models with more than nine parameters, whereas we only had nine contextual units at the country level. The only possible way to have less than nine parameters and achieve model convergence is to remove the control variables and fix the variances to zero, both at the country level and the country-year level. However, such a model cannot provide reliable estimates with the variances fixed at the country-year level, where the moderation and mediation take place. Though this model showed both the expected mediation and the expected moderation, the results thus cannot be reliably interpreted. Therefore, we keep the mediation and moderation models separate and only report these separate models.

⁹Interestingly, when we include political orientation in the final interaction model, the main association of policy change with immigration attitudes is significant with change towards more inclusive policies predicting less negative attitudes. However, further exploratory analysis shows that this association is not robust: when we test the main effect of policy change on immigration attitudes without the interaction with friendship but including political orientation, the policy change-immigration attitude association is no more significant.

¹⁰This interpretation is supported by methodological work showing that when a significant indirect effect is present (in our case, policy change on attitudes through friendship), this significant indirect effect demonstrates that the predictor (policy change) impacts the dependent variable (attitudes) through the mediator (friendship) even in the absence of a significant total or direct effect (i.e., the direct policy change effect on attitudes). Beyond these general arguments, specifically in our data, a suppression effect might also explain why we did not find a significant direct effect, as the policy change effect is positive and the friendship effect is negative (Rucker et al. 2011).

References

- Alba, R., and N. Foner. 2014. "Comparing Immigrant Integration in North America and Western Europe: How Much Do the Grand Narratives Tell Us?." *International Migration Review* 48, no. S1: S263–S291. <https://doi.org/10.1111/imre.12134>.
- Allport, G. W. 1954. *The Nature of Prejudice*. Boston, MA: Addison-Wesley.
- Andersson, H., and S. H. Dehdari. 2021. "Workplace Contact and Support for Anti-Immigration Parties." *American Political Science Review* 115, no. 4: 1159–1174. <https://doi.org/10.1017/S0003055421000599>.
- Bell, B. A., G. B. Morgan, J. A. Schoeneberger, J. D. Kromrey, and J. M. Ferron. 2014. "How Low Can You Go?." *Methodology* 10, no. 1: 1–11. <https://doi.org/10.1027/1614-2241/a000062>.
- Billiet, J., and B. Meuleman. 2012. "Measuring Attitudes Toward Immigration in Europe: The Cross-Cultural Validity of the ESS Immigration Scales." *ASK: Research & Methods* 21: 5–29.
- Bloemraad, I., V. M. Esses, W. Kymlicka, and Y.-Y. Zhou. 2023. *Unpacking Immigrant Integration: Concepts, Mechanisms, and Context*. World Development Report 2023: Migrants, Refugees, and Societies. Washington, DC: World Bank. <https://thedocs.worldbank.org/en/doc/454db131e2fb1cd039409bd6f78e1778-0050062023/original/Social-integration-FINAL-FORMATTED.pdf>.

- Callens, M.-S., and B. Meuleman. 2016. "Do Integration Policies Relate to Economic and Cultural Threat Perceptions? A Comparative Study in Europe." *International Journal of Comparative Sociology* 58, no. 5: 367–391. <https://doi.org/10.1177/0020715216665437>.
- Ceobanu, A. M., and X. Escandell. 2010. "Comparative Analyses of Public Attitudes Toward Immigrants and Immigration Using Multinational Survey Data: A Review of Theories and Research." *Annual Review of Sociology* 36, no. 1: 309–328. <https://doi.org/10.1146/annurev.soc.012809.102651>.
- Craig, M. A., J. M. Rucker, and J. A. Richeson. 2017. "The Pitfalls and Promise of Increasing Racial Diversity: Threat, Contact, and Race Relations in the 21st Century." *Current Directions in Psychological Science* 27, no. 3: 188–193. <https://doi.org/10.1177/0963721417727860>.
- Crocetti, E., F. Albarelo, F. Prati, and M. Rubini. 2021. "Development of Prejudice Against Immigrants and Ethnic Minorities in Adolescence: A Systematic Review With Meta-Analysis of Longitudinal Studies." *Developmental Review* 60: 100959. <https://doi.org/10.1016/j.dr.2021.100959>.
- Davies, K., L. R. Tropp, A. Aron, T. F. Pettigrew, and S. C. Wright. 2011. "Cross-Group Friendships and Intergroup Attitudes: A Meta-Analytic Review." *Personality and Social Psychology Review* 15, no. 4: 332–351. <https://doi.org/10.1177/1088868311411103>.
- de Haas, H., M. Czaika, M.-L. Flahaux, et al. 2019. "International Migration: Trends, Determinants, and Policy Effects." *Population and Development Review* 45, no. 4: 885–922. <https://doi.org/10.1111/padr.12291>.
- Esses, V. M. 2021. "Prejudice and Discrimination Toward Immigrants." *Annual Review of Psychology* 72, no. 1: 503–531. <https://doi.org/10.1146/annurev-psych-080520-102803>.
- Fairbrother, M. 2014. "Two Multilevel Modeling Techniques for Analyzing Comparative Longitudinal Survey Datasets." *Political Science Research and Methods* 2, no. 1: 119–140. <https://doi.org/10.1017/psrm.2013.24>.
- Filindra, A., D. Blanding, and C. G. Coll. 2011. "The Power of Context: State-Level Policies and Politics and the Educational Performance of the Children of Immigrants in the United States." *Harvard Educational Review* 81, no. 3: 407–438. <https://doi.org/10.17763/haer.81.3.n306607254h11281>.
- Freedom House. 2014. *Freedom in the World 2014: The Annual Survey of Political Rights and Civil Liberties*. New York, New York: Rowman & Littlefield.
- Green, E. G. T., E. P. Visintin, O. Sarrasin, and M. Hewstone. 2020. "When Integration Policies Shape the Impact of Intergroup Contact on Threat Perceptions: A Multilevel Study Across 20 European Countries." *Journal of Ethnic and Migration Studies* 46, no. 3: 631–648. <https://doi.org/10.1080/1369183X.2018.1550159>.
- Guimond, S., R. J. Crisp, P. De Oliveira, et al. 2013. "Diversity Policy, Social Dominance, and Intergroup Relations: Predicting Prejudice in Changing Social and Political Contexts." *Journal of Personality and Social Psychology* 104, no. 6: 941–958. <https://doi.org/10.1037/a0032069>.
- Hadj-Abdou, L., and C. Katsiaficas. 2023. "Comparative Paper: Attitudes, Intergroup Relations, and Migrant Integration Experiences (EUI, RSC, Working Paper Issue." <https://hdl.handle.net/1814/76198>.
- Hager, A., H. Hilbig, and S. Riaz. 2023. "Refugee Labor Market Access Increases Support for Immigration." *Comparative Political Studies* 57: 749–777. <https://doi.org/10.1177/00104140231178733>.
- Hainmueller, J., and D. J. Hopkins. 2014. "Public Attitudes Toward Immigration." *Annual Review of Political Science* 17, no. 1: 225–249. <https://doi.org/10.1146/annurev-polisci-102512-194818>.
- Hainmueller, J., and D. J. Hopkins. 2015. "The Hidden American Immigration Consensus: A Conjoint Analysis of Attitudes Toward Immigrants." *American Journal of Political Science* 59, no. 3: 529–548. <https://doi.org/10.1111/ajps.12138>.
- Ham, S.-H., H. Song, and K.-E. Yang. 2020. "Towards a Balanced Multiculturalism? Immigrant Integration Policies and Immigrant Children's Educational Performance." *Social Policy & Administration* 54, no. 5: 630–645. <https://doi.org/10.1111/spol.12561>.
- Helbling, M. 2013. "Validating Integration and Citizenship Policy Indices." *Comparative European Politics* 11, no. 5: 555–576. <https://doi.org/10.1057/cep.2013.11>.
- Huo, Y. J., J. F. Dovidio, T. R. Jiménez, and D. J. Schildkraut. 2018. "Local Policy Proposals Can Bridge Latino and (Most) White Americans' Response to Immigration." *Proceedings of the National Academy of Sciences of the United States of America* 115, no. 5: 945–950. <https://doi.org/10.1073/pnas.1711293115>.
- Igartua, J.-J., and A. F. Hayes. 2021. "Mediation, Moderation, and Conditional Process Analysis: Concepts, Computations, and Some Common Confusions." *Spanish Journal of Psychology* 24: e49. <https://doi.org/10.1017/SJP.2021.46>.
- Isernia, P. 2009. *Transatlantic Trends Immigration Survey 2008*. GESIS Datenarchiv, Köln. ZA4990 Datenfile Version 1.0.0. <https://doi.org/10.4232/1.4990>.
- German Marshall Fund of the United States (GMF), Washington, USA. and Isernia, P. 2013a. *Transatlantic Trends Immigration Survey 2009*. GESIS Datenarchiv, Köln. ZA5358 Datenfile Version 1.0.0. <https://doi.org/10.4232/1.11518>.
- German Marshall Fund of the United States (GMF), Washington, USA. and Isernia, P. 2013b. *Transatlantic Trends Immigration Survey 2010*. GESIS Datenarchiv, Köln. ZA5360 Datenfile Version 1.0.0. <https://doi.org/10.4232/1.11520>.
- German Marshall Fund of the United States (GMF), Washington, USA. and Isernia, P. 2013c. *Transatlantic Trends Immigration Survey 2011*. GESIS Datenarchiv, Köln. ZA5362 Datenfile Version 1.0.0. <https://doi.org/10.4232/1.11522>.
- German Marshall Fund of the United States (GMF), Washington, USA. and Isernia, P. 2014. *Transatlantic Trends 2013*. GESIS Datenarchiv, Köln. ZA5646 Datenfile Version 1.0.0. <https://doi.org/10.4232/1.11894>.
- Kauff, M., M. Beneda, S. Paolini, et al. 2021. "How Do We Get People Into Contact? Predictors of Intergroup Contact and Drivers of Contact Seeking." *Journal of Social Issues* 77, no. 1: 38–63. <https://doi.org/10.1111/josi.12398>.
- Kauff, M., L. R. Tropp, M. Hewstone, et al. 2023. "Institutional Equality Norms and Engagement in Intergroup Contact." Manuscript in Preparation.
- Kende, J., D. Jacobs, E. G. T. Green, et al. 2024. "Integration Policies Shape Ethnic-Racial Majorities' Threat Reactions to Increasing Diversity." *Science Advances* 10, no. 22: eadk8556. <https://doi.org/10.1126/sciadv.adk8556>.
- Kende, J., K. Phalet, W. Van den Noortgate, A. Kara, and R. Fischer. 2018. "Equality Revisited: A Cultural Meta-Analysis of Intergroup Contact and Prejudice." *Social Psychological and Personality Science* 9, no. 8: 887–895. <https://doi.org/10.1177/1948550617728993>.
- Kende, J., O. Sarrasin, A. Manatschal, K. Phalet, and E. G. T. Green. 2022. "Policies and Prejudice: Integration Policies Moderate the Link Between Immigrant Presence and Anti-Immigrant Prejudice." *Journal of Personality and Social Psychology* 123, no. 2: 337–352. <https://doi.org/10.1037/pspi0000376>.
- Kesler, C., and I. Bloemraad. 2010. "Does Immigration Erode Social Capital? The Conditional Effects of Immigration-Generated Diversity on Trust, Membership, and Participation Across 19 Countries, 1981–2000." *Canadian Journal of Political Science/Revue Canadienne De Science Politique* 43, no. 2: 319–347. <http://www.jstor.org/stable/20743152>.
- Kotzur, P. F., and U. Wagner. 2021. "The Dynamic Relationship Between Contact Opportunities, Positive and Negative Intergroup Contact, and Prejudice: A Longitudinal Investigation." *Journal of Personality and Social Psychology* 120, no. 2: 418–442. <https://doi.org/10.1037/pspi0000258>.
- Kruse, H., and C. Kroneberg. 2019. "More than a Sorting Machine: Ethnic Boundary Making in a Stratified School System." *American Journal of Sociology* 125, no. 2: 431–484. <https://doi.org/10.1086/705561>.
- Laurence, J., and L. Bentley. 2018. "Countervailing Contact: Community Ethnic Diversity, Anti-Immigrant Attitudes and Mediating Pathways of

- Positive and Negative Inter-Ethnic Contact in European Societies." *Social Science Research* 69: 83–110. <https://doi.org/10.1016/j.ssresearch.2017.09.007>.
- Levin, S., C. Van Laar, and J. Sidanius. 2003. "The Effects of Ingroup and Outgroup Friendships on Ethnic Attitudes in College: A Longitudinal Study." *Group Processes & Intergroup Relations* 6, no. 1: 76–92. <https://doi.org/10.1177/1368430203006001013>.
- Marbach, M., J. Hainmueller, and D. Hangartner. 2023. "The Long-Term Impact of Employment Bans on the Economic Integration of Refugees." *Science Advances* 4, no. 9: eaap9519. <https://doi.org/10.1126/sciadv.aap9519>.
- Neureiter, M. 2022. "The Effect of Immigrant Integration Policies on Public Immigration Attitudes: Evidence From a Survey Experiment in the United Kingdom." *International Migration Review* 56, no. 4: 1040–1068. <https://doi.org/10.1177/01979183211063499>.
- OECD. 2020. "Foreign-Born Population (Indicator)." In. <https://doi.org/10.1787/5a368e1b-en>.
- Pettigrew, T. F., and L. R. Tropp. 2006. "A Meta-Analytic Test of Intergroup Contact Theory." *Journal of Personality and Social Psychology* 90, no. 5: 751–783. <https://doi.org/10.1037/0022-3514.90.5.751>.
- Platt, L., J. Polavieja, and J. Radl. 2021. "Which Integration Policies Work? The Heterogeneous Impact of National Institutions on Immigrants' Labor Market Attainment in Europe." *International Migration Review* 56: 344–375. <https://doi.org/10.1177/01979183211032677>.
- Preacher, K. J., M. J. Zyphur, and Z. Zhang. 2010. "A General Multilevel SEM Framework for Assessing Multilevel Mediation." *Psychological Methods* 15, no. 3: 209–233. <https://doi.org/10.1037/a0020141>.
- Ramos, M. R., M. R. Bennett, D. S. Massey, and M. Hewstone. 2019. "Humans Adapt to Social Diversity Over Time." *Proceedings of the National Academy of Sciences of the United States of America* 116: 12244–12249. <https://doi.org/10.1073/pnas.1818884116>.
- Ramos, M. R., S. Schumann, and M. Hewstone. 2021. "The Role of Short-Term and Longer Term Immigration Trends on Voting for Populist Radical Right Parties in Europe." *Social Psychological and Personality Science* 13: 816–826. <https://doi.org/10.1177/19485506211043681>.
- Rucker, D. D., K. J. Preacher, Z. L. Tormala, and R. E. Petty. 2011. "Mediation Analysis in Social Psychology: Current Practices and New Recommendations." *Social and Personality Psychology Compass* 5, no. 6: 359–371. <https://doi.org/10.1111/j.1751-9004.2011.00355.x>.
- Ruedin, D. 2011. "The Reliability of MIPEX Indicators as Scales." SOM Working Paper No. 2011-03. <https://doi.org/10.2139/ssrn.1990223>.
- Safi, M. 2020. *Migration and Inequality*. Cambridge, UK: Polity Books.
- Schlueter, E., B. Meuleman, and E. Davidov. 2013. "Immigrant Integration Policies and Perceived Group Threat: A Multilevel Study of 27 Western and Eastern European Countries." *Social Science Research* 42, no. 3: 670–682. <https://doi.org/10.1016/j.ssresearch.2012.12.001>.
- Sobolewska, M., S. Galandini, and L. Lessard-Phillips. 2017. "The Public View of Immigrant Integration: Multidimensional and Consensual. Evidence From Survey Experiments in the UK and the Netherlands." *Journal of Ethnic and Migration Studies* 43, no. 1: 58–79. <https://doi.org/10.1080/1369183X.2016.1248377>.
- Solano, G., and T. Huddleston. 2020. "Migrant Integration Policy Index 2020." <https://mipex.eu/>.
- Sønderskov, K. M., and J. P. F. Thomsen. 2015. "Contextualizing Intergroup Contact: Do Political Party Cues Enhance Contact Effects?." *Social Psychology Quarterly* 78, no. 1: 49–76. <https://doi.org/10.1177/0190272514560761>.
- The World Bank. 2020. "World Bank Databank." <https://databank.worldbank.org/home.aspx>.
- Titzmann, P. F., A. Brenick, and R. K. Silbereisen. 2015. "Friendships Fighting Prejudice: A Longitudinal Perspective on Adolescents' Cross-Group Friendships With Immigrants." *Journal of Youth and Adolescence* 44, no. 6: 1318–1331. <https://doi.org/10.1007/s10964-015-0256-6>.
- Tropp, L. R., and T. A. Dehron. 2023. "Prejudice Reduction and Social Change: Dual Goals to be Pursued in Tandem." In *Oxford Handbook of Political Psychology*, edited by L. Huddy, D. Sears, J. Levy, and J. Jerit, 1062–1094, 3rd edition. Oxford, UK: Oxford University Press.
- Visintin, E. P., E. G. T. Green, J. M. Falomir-Pichastor, and J. Berent. 2019. "Intergroup Contact Moderates the Influence of Social Norms on Prejudice." *Group Processes & Intergroup Relations* 23: 418–440. <https://doi.org/10.1177/1368430219839485>.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.