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ARTICLE

A Meta-Analysis of Attitudes Towards Migrants and Displaced Persons

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Abstract

Since the 2010s, social scientists have increasingly conducted survey-experimental studies that explore what factors drive public attitudes towards migrants in host countries. We conducted a systematic meta-analysis of 118 such studies, comprising 428,881 respondents from fifty-three countries. We find that sociotropic economic concerns play a key role, with individuals being more welcoming towards migrants who contribute to the economy through their professional occupation, education, or language skills. In contrast, there is limited evidence that hosts evaluate migrants based on egocentric economic concerns. Cultural concerns are also important; notably, we uncover a persistent anti-Muslim bias. Humanitarian concerns shape attitudes as well – especially towards forcibly displaced migrants, who are generally viewed more favorably than economic migrants. Climate migrants place between conflict migrants and economic migrants in terms of public perception. Our meta-analysis raises several questions that remain unanswered in the literature, suggesting important directions for future research.

Keywords: Migration; forced displacement; attitudes; survey experiment; conjoint experiment

Introduction

Migration has polarized public opinion for decades and has become increasingly politicized. Today, migration plays a key role in many elections around the world, including in the United States, much of the European Union, the United Kingdom, India, and South-Africa (Dionne and Wellman 2024; Hardy 2024; Kustov 2024). The importance of migration in political discourse and media has led to anti-immigrant attitudes (see, for example, Benesch et al. 2019; Hopkins 2010) and recent political wins for anti-immigrant parties (Arzheimer 2018; Cools et al. 2021; Halikiopoulou and Vlandas 2020). This development has gone hand in hand with, and in many cases in response to, an increase in conflict-related migration (see Figure 1). Consequently, what shapes people's attitudes towards migrants is of interest to research and policy.

During the last two decades, understanding people's attitudes towards migrants has become an important research agenda in the social sciences, in particular in political science, psychology, and sociology (see, for example, Bansak et al. 2016; Czymara and Schmidt-Catran 2017; Flores and Schachter 2018; Hainmueller and Hopkins 2015; Hainmueller and Hiscox 2010; Helbling and Traunmüller 2020). A cohesive body of research has emerged that uses survey experiments to explore whether economic, cultural, or humanitarian concerns among host populations shape

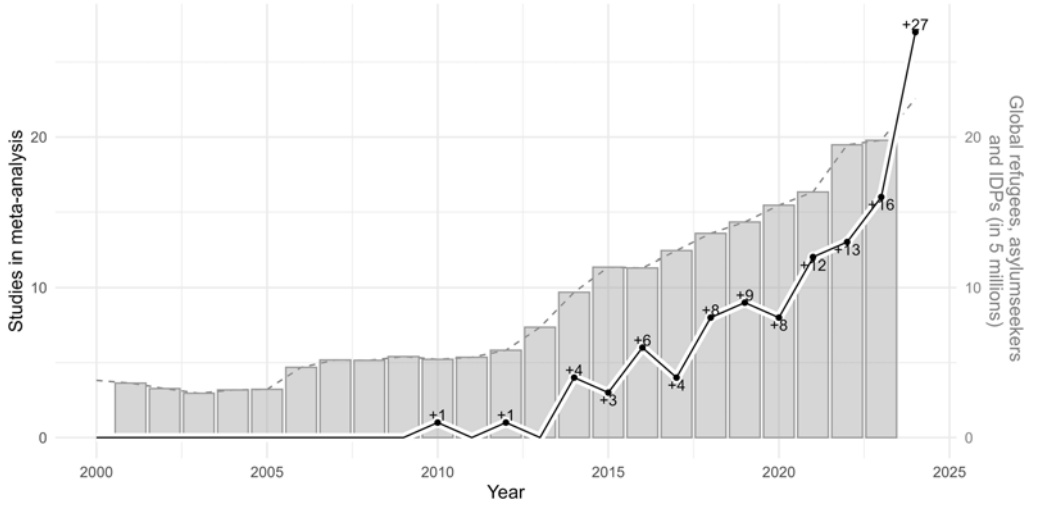

Figure 1. Studies included in the meta-analysis and forced displacement. Studies added to the meta-analysis from 2000 to 2024 (black solid line). Global estimates of forcibly displaced migrants according to UNHCR (gray bars and dashed line). Plot excludes unpublished studies.

which migrants are welcomed and which are rejected. In the context of developed countries, these quantitative studies often explore attitudes towards economic migrants (see, for example, Hainmueller and Hopkins 2015) and towards refugees and asylum seekers (see, for example, Adida et al. 2019; Bansak et al. 2016). The limited experimental work exploring such attitudes in developing countries largely focuses on the determinants of hosting displaced persons (see, for example, Alrababa'h et al. 2021; Hartman and Morse 2020; Peisakhin et al. 2024).[1]

This study contributes to the literature on migration by undertaking a meta-analysis of existing survey-experimental studies on attitudes towards different types of migrants.[2] After two decades of research, it is important to take stock of existing evidence, to summarize what factors drive attitudes towards migrants, and to identify areas that require further scholarly attention. The second motivation to conduct a meta-analysis is the ability to address questions that individual studies cannot answer. Attitudes towards migrants may differ, for example, across host-country contexts, and distinct factors may influence how host populations perceive economic versus forced migrants. By aggregating evidence from various studies, this meta-analysis provides important new insights.

We systematically collected data from 118 academic studies that experimentally vary migrant characteristics and subsequently assess attitudes towards these migrants. This type of survey-experimental setup was first introduced by Hainmueller and Hiscox (2010) – who manipulated the skill levels of migrants – but has since become popular in political science, psychology, and sociology, and has methodologically moved to multidimensional conjoint experiments, with Hainmueller and Hopkins (2015) as an influential and often cited pioneering study. Research has put forward four major theoretical drivers of attitudes towards migrants: egocentric economic concerns, sociotropic economic concerns, cultural concerns, and humanitarian concerns. We focus on the nine migrant characteristics that are most commonly used to measure these four

[1]While we specifically focus on survey-experimental work in this meta-analysis, a methodologically more diverse literature analyzes the inclusion and exclusion of migrants in developing countries (e.g., Adida 2014; Fiddian-Qasmiyeh 2020; Grabska 2006; Landau 2010).

[2]We define a migrant as any person that voluntarily or involuntarily moves permanently or for an extended period of time away from their original community. This includes refugees, asylum seekers, internally displaced persons, migrants for economic reasons, migrants for family reunification or due to climatic changes, and internal migrants.

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concerns and conduct multiple meta-analyses – one for each migrant characteristic – to analyze how these concerns shape host population's attitudes towards migrants.

While we are not the first to undertake a meta-analysis of attitudes towards migrants, our study offers several important and complementary contributions. Whereas Cowling et al. (2019) and Dražanová et al. (2024) primarily focus on the impact of respondent characteristics – the former with a particular focus on attitudes towards refugees – we center our analysis on how migrant characteristics shape public opinion. Moreover, by exclusively analyzing experimental studies, our meta-analysis benefits from stronger internal validity and the ability to draw causal inferences. A recent working paper by Aviña et al. (2025) adopts a similar experimental focus, but is limited to conjoint experiments. In contrast, our meta-analysis encompasses a broader range of experimental designs, allowing us to include all relevant experimental studies in the field. As a result, we draw on 118 academic studies and nearly 429,000 respondents from fifty-three countries.[3] We view these concurrent efforts as complementary and believe that, together, they advance a more nuanced and evidence-based understanding of public attitudes towards migrants.

Our meta-analyses reveal several key findings. First, we find no clear evidence for the importance of egocentric economic concerns; that is, those concerns related to fears of labor market competition from migrants with similar skill-sets. Second, sociotropic economic concerns – worries about whether a migrant contributes to the economy overall – shape attitudes towards migrants, and in particular when these migrants are not forcibly displaced. Third, cultural concerns around the origin and religion of migrants lead to context-specific rejections of certain migrant profiles. In addition, we find that there is a widespread anti-Muslim bias. Fourth, humanitarian concerns shape the reception of migrants; in particular, forcibly displaced populations. Taking these results together, one of the least preferred migrant profiles across most, if not all, studied contexts and respondents is a male economic migrant who is Muslim, unemployed, and has low education and language skills. Although it may be context-dependent whether it matters if this person is from a specific region or country, this seems to exclude many of the migrants currently moving across the world. Fifth, exploring heterogeneous effects, we find that respondents prefer conflict migrants over economic migrants, while migrants who are forced to flee due to climate change rank between both. Sixth, we show that sociotropic economic concerns more strongly shape attitudes towards economic migrants, while humanitarian concerns are particularly relevant for the inclusion of forced migrants. Finally, cultural concerns around religion matter less to host populations in developing countries compared to developed countries, and developing countries prefer economic migrants over forced migrants.

The study concludes with recommendations for further research on the interaction between sociotropic economic concerns, labor demand, and welfare states; on a more universal conceptualization of what constitutes humanitarian concerns or migrant vulnerability; and on the specific cultural aspects that matter for the reception of migrants. We further emphasize that a systematic understanding of attitudes towards migrants requires a systematic study of these phenomena in all areas where migration actually occurs; more academic evidence with survey-experimental approaches is needed, particularly from developing contexts.

Attitudes Towards Migrants: Theoretical Explanations

Understanding what factors determine people's attitudes towards migrants has received much scholarly attention in the last two decades. Several studies have focused on the host population, studying *which hosts* are more likely to hold positive attitudes towards migrants and under what conditions (see, for example, Ceobanu and Escandell 2010; Mayda 2006). Many of these studies

[3]Compared to the thirty-one studies with 135,272 respondents from thirty-two countries studied by Aviña et al. (2025). Note that we use published studies as the unit of analysis while Aviña et al. (2025) use the study-country as the unit of analysis.

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rely on large-scale panel data, such as the European Social Survey, to show that migration can be unpopular, affects views on welfare distribution, and is driven by feelings of economic insecurity (see, for example, Billiet et al. 2014; Senik et al. 2009; Sides and Citrin 2007). Dražanová et al. (2024) meta-analyze these studies and find that higher education, living in urban areas, and being younger are associated with more positive attitudes towards migration. Other studies have relied on an experimental approach to investigate *which migrants* are preferred. We summarize this rich literature that theoretically goes back to theories of personal and social identity, self- and group interest, cultural values and beliefs, and social interaction. For detailed reviews of the theoretical origins of migration attitudes, see Berg (2015), Ceobanu and Escandell (2010), and Hainmueller and Hopkins (2014). We group the factors that shape attitudes towards migrants into four major families, following the existing classification in the literature.

A first explanation relates to economic concerns on the basis of job competition with migrants. According to this argument, people tend to oppose migrants that may compete with them on the labor market; for example, those migrants that have a similar skill-set (see, for example, Mayda 2006; Scheve and Slaughter 2001). This expectation is theoretically grounded in theories of self-interest and personal threat perceptions (Berg 2015; Ceobanu and Escandell 2010). Later studies, however, found little evidence for these *egocentric economic concerns* and argued that most hosts – regardless of their skill-set – tend to be opposed to low-skilled migration (see, for example, Hainmueller and Hopkins 2014 2015; Hainmueller and Hiscox 2010; Helbling and Kriesi 2014).

Going back to socio-psychological theories (Hainmueller and Hopkins 2014), the second family of factors also relates to economic concerns but argues that hosts are concerned about the broader economic implications of migration. Here, the argument is that people are more welcoming towards migrants whom they perceive to contribute to the overall economy, those that bring in human capital, and those that contribute more to tax revenues than they cost in public services. Empirically, these so-called *sociotropic economic concerns* manifest themselves in a preference for high-skilled migrants with higher levels of education, high employability, and good language skills (Adida et al. 2019; Bansak et al. 2016 2023; Naumann et al. 2018).

The third set of factors relates to the perceived threat that migrants may pose to hosts' identity – be it cultural, religious, ethnic, or national (Hainmueller and Hopkins 2014). Depending on their cultural values and beliefs, and their social identity, individuals can hold pro- or anti-immigrant attitudes (for example, nativism v. cosmopolitanism worldview) (Berg 2015). Such concerns have manifested themselves, for instance, in a preference for Christian over Muslim migrants in Western countries (Adida et al. 2019; Bansak et al. 2016 2023; Helbling and Traunmüller 2020), and in support for more restrictive migration policies by white Americans for Hispanic compared to white migrants (Hartman et al. 2014).

Finally, recent research has highlighted humanitarian concerns as a fourth explanation of people's attitudes towards migrants. This argument relates to the migrant's perceived deservingness, resulting in a preference for refugees who migrated because of violence, persecution, or climate change compared to economic migrants (Bansak et al. 2016 2023; Helbling 2020). The argument is often linked to theories of empathy (see, for example, Hartman and Morse 2020). Humanitarian concerns further manifest themselves in a preference for vulnerable migrants; for example, those whose family has been affected by conflict, those fleeing with children, and female migrants (Adida et al. 2019; Alrababa'h et al. 2021; Bansak et al. 2016 2023).

Table 1 provides a summary overview of these four broad types of concerns that may drive attitudes towards migrants, and formulates expectations related to specific migrant characteristics. The table further provides an overview of the related meta-analyses we conduct, which we return to below.

In addition to exploring how these four groups of concerns determine attitudes towards migrants, we undertake two additional analyses. First, public discourse, media, and policy-making often make a distinction between 'economic' and 'forced' migrants, assuming that economic migrants move freely and voluntarily while displaced migrants have little to no agency in their

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Table 1. Drivers for attitudes towards migrants and meta-analysis. 'Logic' and 'Expectation' follow from the literature. 'Attributes (levels)' indicate the migrant's characteristics (and levels) used to investigate the theoretical concern. '*n*' indicates the number of studies that have variation in this attribute or attribute combination. 'Results' indicate where the meta-analysis results can be found

Concerns	Logic	Expectation	Attributes (levels)	*n*	Results
Egocentric economic	Concerns about labor market competition from migrants with similar skill-set	Negative attitudes towards migrants with similar skill-set	Migrant v. respondent education (mismatch | match)	27	Figure 2
			Migrant skills v. respondent income (mismatch | match)	11	Figure 3
Sociotropic economic	Preference for migrants that contribute to the overall economy	Preference for employability: high education and skills, economically active, language skills	Occupation (professional occupation | worker/ farmer | unemployed)	45	Figure 4
			Language skills (fluent | broken | unable)	34	Figure 5
Cultural	Concerns about a threat to an identity: religious, ethnic, cultural, national	Preference for culturally similar: same religion or ethnicity, anti-Muslim bias, place of origin matters	World region (developed | developing)	58	Figure 6
			Migrant v. respondent origin region (mismatch | match)	47	Figure 7
			Religion (Christian | Muslim)	50	Figure 8
Humanitarian	Preference for vulnerable profiles that are deserving of help	Preference for female migrants and those fleeing from conflict	Gender (men | women)	56	Figure 9
			Reason for migration (economic migrant | climate migrant | family reunification | forced migrant)	31	Figure 10
Heterogeneity analyses:					
Economic v. forced migrants	Humanitarian concerns drive attitudes towards forced migrants, and economic concerns towards economic migrants	Conditional on migration reason, stronger preferences for vulnerable or employable profiles	Interaction between reason to migrate and attributes		Figure 11
Developing v. developed countries	Welfare and securitization shape preferences across the world	Preferences differ between developing and developed countries	Heterogeneous effects by developing versus developed countries		Figure 13

movement decision. Initially, scholars comparing attitudes across different migrant profiles focused on attitudes towards economic migrants (see Hainmueller and Hopkins 2014), and only recently turned their focus to internally displaced persons (IDPs), refugees, and asylum seekers (see, for example, Adida et al. 2019; Bansak et al. 2016 2023; Hartman, Morse and Weber 2021). Although critical scholars rightly emphasize that this dichotomization oversimplifies real-world complexities, the labels undoubtedly carry discursive significance (Bakewell 2021; Erdal and Oeppen 2020; Hamlin 2021). This study explores whether the reason for migration shapes how other migrant characteristics – like their employability and vulnerability – are evaluated. We expect that economic concerns matter, especially when evaluating economic migrants, while perceptions of forced migrants are more strongly shaped by humanitarian concerns.

Second, we also explore heterogeneous attitudes towards migrants across developing and developed countries. The classification of countries into 'developing' and 'developed' countries is contested and implies hierarchies in the international system (Barros Leal Farias 2024). Nevertheless,

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we explore attitudinal differences across this dichotomy because high and low income countries differ in the social welfare provided by the state to migrants and hosts, as well as the scale of economic and forced migration (see, for example, Alrababa'h et al. 2021). Developing countries carry the main burden of hosting the forcibly displaced, and are often affected by conflict and disaster themselves. High-income countries are more commonly recipients of high-skilled and economic migrants. Securitization and politicization of migration in public discourse also differs across political systems and world regions (Buonfino 2004; Krzyżanowski et al. 2018), potentially shaping differential responses to migrants.

Meta-Analysis Approach

Data Collection

We targeted all academic papers published since 2000, as well as unpublished manuscripts, which (1) aim to explain variation in attitudes towards migrants broadly defined, and (2) experimentally vary migrant characteristics.[4] We ran a keyword search in *Scopus* that included a substantive criterion (study must include at least one keyword from each of the three following categories: (1) hosting, accepting, preference, attitudes, inclusion, sentiment; (2) refugees, displaced people, internally displaced people, migrants, asylum seekers, forced displacement; (3) immigration, migration, displacement), a methodological criterion (include at least one keyword from experiment, experimentally, conjoint, vignette, random), and practical criteria (journal article, published between 2000 and 2024, subject area social sciences or multidisciplinary, English language). Appendix A provides further details. This search yielded 3,358 studies. We manually screened the abstract and title of the studies, identifying 127 relevant studies. Replication files were publicly available for fifty-three studies. We contacted the authors of the remaining studies and obtained data for an additional forty-nine studies.

In addition to this search, we obtained data from two other sources. First, we identified eleven studies from citations within the included studies. Second, we undertook a systematic search of the major online registration databases in social sciences in order to incorporate pre-registered studies where data may have been collected but the paper was not (yet) publicly available (see Appendix A). We identified nine additional unpublished studies; for five, we were able to obtain the data. In total, 118 studies are included in the meta-analysis, conducted in fifty-three different countries and covering a total of 428,881 respondents. Table 2 summarizes the data collection.

Standardization Across Studies

The studies differ across several dimensions and require standardization. First, there is variation in the dependent variable under study. Most studies investigate the admission of a migrant to the country (42/118). Other popular outcome variables are measures to gauge respondent general pro-migrant sentiment (11/118), approval for policies that allow more migration (10/118), and the granting of citizenship to migrants (10/118). Appendix E.3 presents a full overview of outcome measures and explores whether they drive heterogeneity in our findings. We consider all these outcomes to measure a latent common concept of attitudes towards migrants.

Second, the studies vary in their experimental design, yielding different data types. The most popular design, with fifty-five studies, is the conjoint experiment in which the dependent variable is binary (if respondents are forced to choose between two hypothetical migrant profiles) or

[4]This excludes studies that experimentally vary the framing of migrants, the effect of migration on host populations, or the scale of migration. We also exclude studies that only manipulate ethnicity but do not explicitly prime that the person to be evaluated is a migrant. Some studies compare migrants to nationals within their design. In these cases, we exclude observations concerning nationals from the meta-analysis.

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Table 2. Overview of the data collection process

	Studies
Universe of possible studies through *Scopus* key word search	3,358
Relevant studies	127 (4%)
Experiments/replication files publicly available*	53 (42%)
Experiments/replication files provided upon request*	49 (39%)
Excluded experiments because no replication files were available/provided*	28 (22%)
Studies identified through citation network	11
Solicitation of unpublished working papers identified from registries	5
Total number of studies included in meta-analysis	118

*Note that in three cases, one of the 127 relevant studies contained more than one experiment/replication file.

continuous (if migrant profiles are evaluated on a scale).[5] In other designs – vignette or factorial survey experiments, behavioral games, and field experiments – the dependent variable is binary, continuous, or measured on a Likert scale. We standardize these measurements by z-standardizing the outcomes using the sample mean and standard deviation in each study.

Third, studies differ in their independent variables; that is, the migrant characteristics under study. To achieve common support across studies, we address semantic differences; for instance, by standardizing the labels for the attribute 'gender' to consistently use 'male' and 'female'. Where appropriate, we group attribute levels – for example, professions such as 'doctor' and 'scientist' are combined under a single 'professional occupation' category – or separate them, such as dividing household composition into an attribute for gender and another for whether a migrant has children. Note that due to this necessary standardization, the meta-estimates do not reproduce the more nuanced findings of the original studies.[6] We also coded commonly available characteristics of respondents. To test attitudinal drivers based on the alignment between migrant and respondent characteristics (for example, matching education levels), we use four of these respondent characteristics – country of residence, education level, income level, and religion – in the main analysis. A detailed overview of the coded migrant attributes and respondent characteristics can be found in Appendix A.4.

In total, we recorded forty-two different migrant characteristics in the 118 included studies. Our main analyses focus on the nine migrant characteristics that are most commonly used to measure the four theoretical explanations of interest. Table 1 lists these characteristics and provides information on how many studies vary them. For egocentric economic concerns, we focus on (mis)matches between the education levels of respondents and migrants, as well as (mis) matches between the skill levels of migrants and the income levels of respondents. To assess sociotropic economic concerns, we look at migrants' occupation and language skills. Cultural concerns are explored by analyzing attitudes towards migrants from developing versus developed countries, differences in the reception of migrants from the same versus a different world region as the respondent, and the influence of migrants' religion. Finally, we assess humanitarian concerns by focusing on the gender of the migrant and their reason for moving.

Our alignment of attributes with attitudinal drivers is informed by the most common interpretation found in the studies included in our meta-analysis. However, it is important to acknowledge that several attributes are open to multiple interpretations. For instance, while a

[5]We do not find big differences across experimental designs, although effect sizes differ for several attributes (Figure A14 in the appendix).

[6]Instead, they should be interpreted as broader, more generalized findings. For example, Alrababa'h et al. (2021) find that Christians are less preferred compared to Sunni Muslims and we can confirm this in a pure replication. However, in our meta-analysis we group together Alawite Muslims and Sunni Muslims, which eliminates the significant difference between Christians and Sunni Muslims. Other indicators – such as Arabic dialects that can subtly distinguish between in- and out-group members in Gulf states (Shockley and Gengler 2024) – cannot be meta-analyzed systematically.

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preference for migrants who speak the respondents' language is most often seen as reflecting sociotropic economic concerns – implying that speaking the host country's language enhances a migrant's perceived economic contribution – it could also be interpreted as a preference for migrants who are culturally more similar. Similarly, while a preference for female migrants is typically associated with humanitarian concerns, given their perceived greater vulnerability, it could also be interpreted as an aversion to male migrants, who may be seen as posing a higher security threat (see, for example, Shaffer et al. 2020), or be influenced by natives' mating market considerations (see, for example, Krakowski and Sambanis 2025). Furthermore, while our main analyses focus on the most frequently varied migrant attributes, other characteristics, such as age or the presence of children, are also commonly studied. Due to space limitations, we are unable to cover all relevant attributes in the main text. However, in Appendix E.1 we present meta-estimates for thirty-two of the forty-two coded migrant characteristics (those that were included in at least five studies).

Estimation Strategy

We are interested in the change in respondent attitudes induced by different levels of migrant characteristics. We therefore fit the following model, which we estimate for each migrant characteristic separately:

$$\hat{\theta}_{kj} = \sum_{j=1}^{J} \delta_j D_{jk} + u_k + \sigma_{kj}\epsilon_{kj}, \quad u_k \overset{\text{i.i.d}}{\sim} N(0, \tau^2); \epsilon_{kj} \overset{\text{i.i.d}}{\sim} N(0, 1), \tag{1}$$

where $\hat{\theta}_{kj}$ represents the standardized marginal means for study k under attribute level j. D_{jk} is an indicator for the different levels of migrant characteristic j in study k. Note that different studies may have different levels j of a specific migrant characteristic. If a study does not explore the migrant characteristic, it is not included. The number of studies that are used to estimate Model (1) thus differs by migrant characteristic. Finally, u_k is the random effect for this study, and ε_{kj} an independent error term. Our interest is in δ_j, which captures the average preference induced by each level j, after taking account of intrinsic heterogeneity between studies captured by the variance of the random effects, τ^2. We fit Model (1) with both a random-effects ($\tau^2 > 0$) and a fixed-effect ($\tau^2 \equiv 0$) specification.[7]

We use marginal means (MMs) instead of average marginal component effects (AMCEs) to measure host preferences across migrant attributes. MMs reflect the average predicted response for each attribute level, while AMCEs represent the difference in predicted response between levels relative to a baseline. MMs are particularly advantageous for pooling data across studies with shared attribute levels, without requiring a shared baseline. Previous research has also shown that MMs provide more intuitive and meaningful summaries of preferences, especially when comparing subgroups (Leeper et al. 2020; Treger 2023). However, we recognize that MMs can be affected by study design, particularly by the distribution of attribute levels in conjoint studies and related experiments. To address this, we standardize responses within each study before estimation, account for residual between-study heterogeneity through the meta-analytic techniques described above, and explain our results by highlighting the most noticeable differences between attribute levels, rather than relying on the exact MM values themselves. In

[7]These models address different questions (Viechtbauer 2010). The random-effects model asks the more general question of 'what is the average true effect in the larger population of studies', possibly extending beyond the studies included in the meta-analysis, while the fixed-effect model asks the more restricted question of the average true effect in the narrower set of studies included in the meta-analysis. Our dual-model strategy is motivated by this subtle difference of implied estimands at the theoretical level (see also Cheung 2015; Schwarzer et al. 2015).

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sum, we opt for MMs to achieve a balance between comparability across studies and interpretability of results.[8]

Model Fit and Publication Bias

To assess model fit, we conduct the omnibus test of moderators to examine the joint significance of all attribute level dummy coefficients in each model (the Q_M-test). This test is supplemented with commonly used log-likelihood and Bayesian information criterion (BIC) statistics. To formally evaluate between-study heterogeneity in effect sizes, we use the modified test of residual heterogeneity to examine effect variability left unexplained by the level dummies (the Q_E-test). Overall, we find that the random-effects model outperforms the fixed-effect model, providing a better fit to the data and yielding more conservative confidence intervals for the estimated meta-effects. In addition, we find statistically significant ($p < 0.001$) evidence for effect heterogeneity between studies, which is not explained by random variation alone. We therefore prioritize reporting random-effects estimates below.

To address and mitigate potential publication bias, we searched for and included unpublished studies from public registries (Table 2). We also checked for publication bias using funnel plots. Figure A2 in Appendix C plots the residualized study effects in each meta-regression against their respective standard errors. The symmetric spread of the residuals around the origin indicates a reassuring lack of overt publication bias (Doleman et al. 2020; Lin and Chu 2018).

Results

We first present results for egocentric economic, sociotropic economic, cultural, and humanitarian concerns.[9] Next, we explore whether these concerns vary based on the reason for migration and whether the host country is a developing or developed context.

The Drivers for Attitudes Towards Migrants

Egocentric economic concerns

If egocentric economic concerns drive attitudes towards migrants, individuals disfavor migrants who have similar skills to themselves and may compete with them in the labor market. To explore this argument empirically, we not only recorded migrant characteristics but also key respondent characteristics. Here, we explore attitudes based on the match between migrant and host characteristics across two dimensions: Figure 2 shows whether respondents (dis)favor migrants with a similar level of education, while Figure 3 analyzes whether skill and income matches affect preferences for migrants.[10] Appendix B presents full results in tabular format. In both figures, and in all subsequent results figures, we present estimates for each individual study that manipulates the migrant attribute under study; at the bottom of the figure, we present estimates from a random-effects and a fixed-effect meta-analysis. All estimates are expressed in

[8]Readers interested in comparing specific attribute levels can examine differences between the corresponding marginal means, either visually or through formal hypothesis tests (e.g., Wald-type tests), using the meta-estimates provided in our replication materials. This differs subtly from an AMCE-centered approach, which structures data around fixed contrasts relative to a baseline rather than marginal quantities. In our framework, meta-analyses are conducted on the marginal estimates themselves, and comparisons are made post-estimation, rather than meta-analyzing the differences directly.

[9]In Appendix D, we show results of a more data-driven, machine learning-based approach. We implement causal random forests that reiterate the limited importance of egocentric economic concerns and highlight the importance of refugees being perceived as 'genuine', which is the case when they come from conflict-affected countries in the Global South.

[10]Some studies vary the income of migrants while others vary the skill level or experience. In this plot, we combine both to achieve more common support, assuming that a higher income also signals to respondents that a migrant is more highly skilled.

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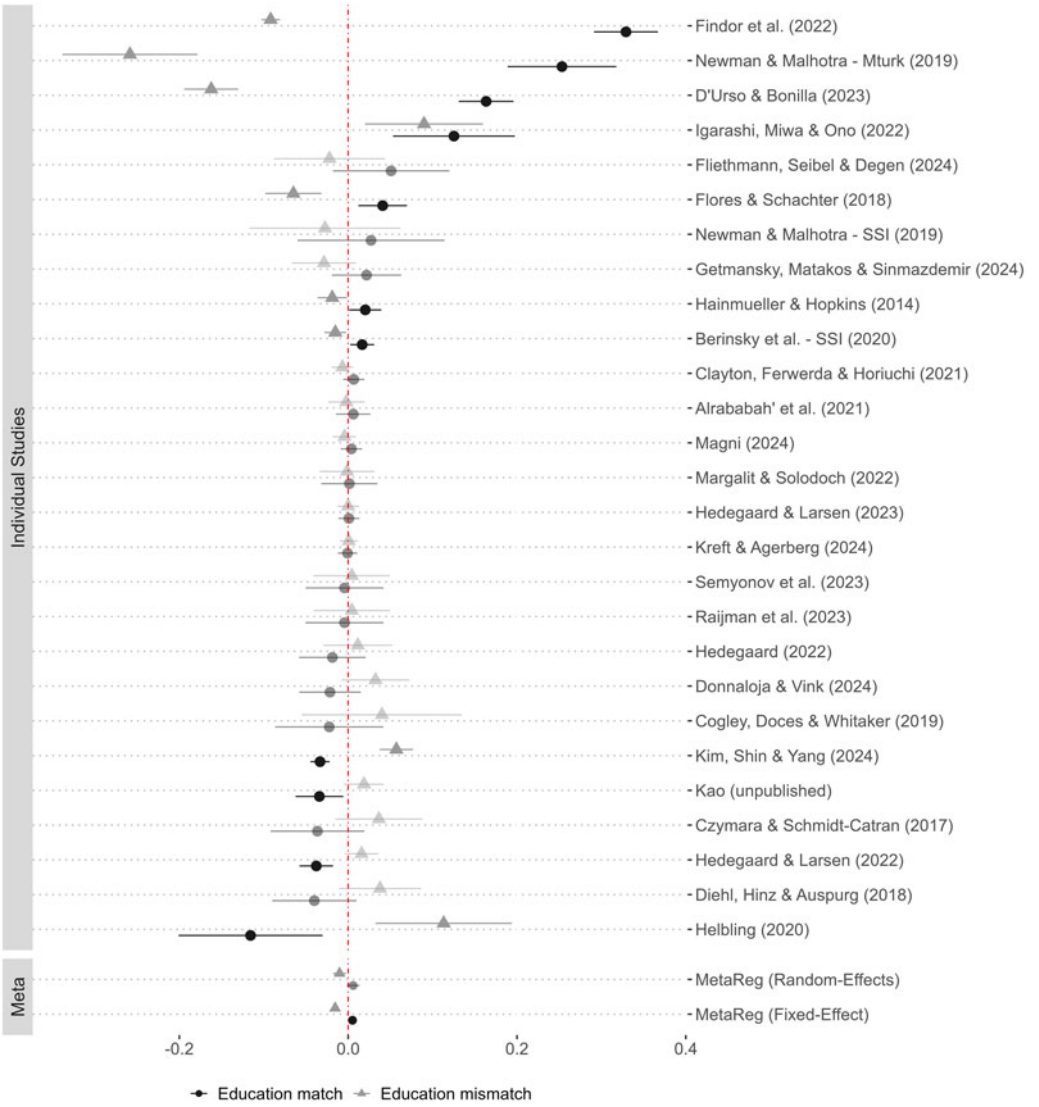

Figure 2. Egocentric concerns: respondents and migrants education level. The effect of a match in migrant's and respondent's education level on positive attitudes towards migrants. High education is defined as having attended or completed higher education. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on twenty-seven studies.

standard deviations (s.d.) from the respondents' average attitude level. Horizontal bars indicate 95 per cent confidence intervals.

The meta-estimates at the bottom of Figures 2 and 3 indicate that there is no strong evidence that egocentric economic concerns drive attitudes towards migrants. Both the fixed-effect and the random-effects model yield very similar estimates. Contrary to theoretical expectations, Figure 2 shows that people may slightly favor migrants with a similar educational background, although this effect is very small – attitudes towards a migrant with a similar education background are about 0.01 s.d. higher than the average respondent's attitude (see Appendix B.1 Table A3), a finding that is only significant in the fixed-effect model. Some studies do find a strong preference for educational matches, but the effects are often imprecisely measured. For example, Newman

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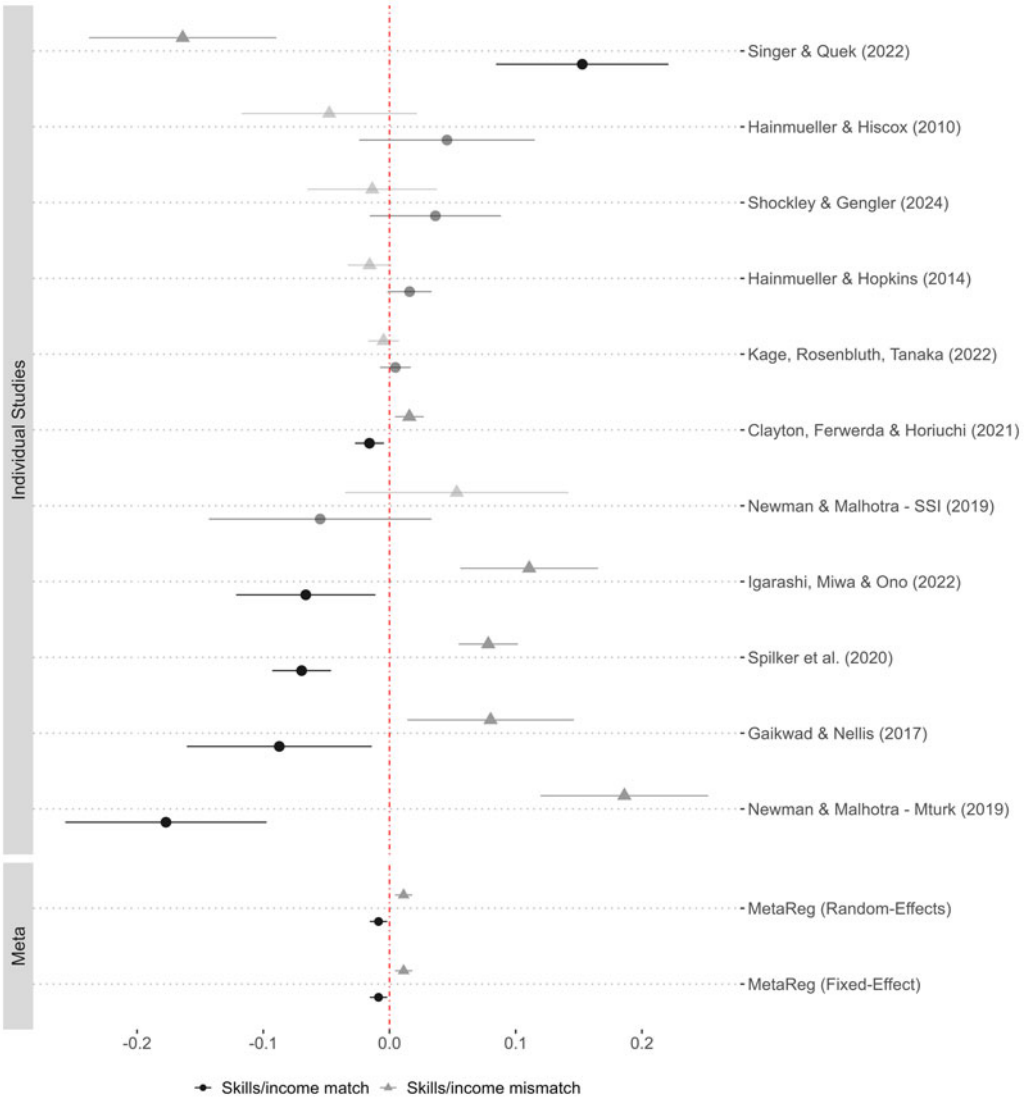

Figure 3. Egocentric concerns: respondent's and migrant's skills level. The effect of a match in migrant's and respondent's income or skills levels on positive attitudes towards migrants. High skills refer to more than three years of training or experience. High income refers to the highest income categories in a given context. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on eleven studies.

and Malhotra (2019) use an MTurk sample in the United States and find a skill premium for highly educated migrants. In our re-analysis, we find a large preference for migrants from the same educational backgrounds as the respondents. This is likely because the authors picked a particularly sharp educational difference between migrants, presenting migrants with no education versus those with a graduate degree, and because of the 'higher share of educated, liberal, and non-Latino respondents' in the MTurk sample (Newman and Malhotra 2019, 164). In another experiment in the same study but with a representative sample, the re-estimated difference is not statistically significant (see row 7 in Figure 2). The meta-estimates in Figure 3 show that respondents prefer migrants with a different skill-set or income level from themselves.

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While this is in line with expectations around job market competition, the effect – around 0.01 s.d. – is substantially small.

The lack of evidence for egocentric economic concerns is well illustrated by the size of and variation in estimates across the individual studies.[11] In Figure 2, many studies find no difference between education matches and mismatches of respondents and migrants, some find positive effects of a match, some negative effects. Also, in Figure 3, the effect estimates across the individual studies point in different directions: data from a national survey in China suggest that migrants with the same skills are preferred (Singer and Quek 2022); data from Japan suggest that skills mismatches are preferred (Igarashi et al. 2022); and US data suggest no clear preferences (Hainmueller and Hiscox 2010). This large variation across the studies aggregated into the meta-estimates leaves little confidence in egocentric economic concerns as an overall driver of attitudes towards migrants.[12] Indeed, an additional analysis shows that hosts generally prefer highly skilled migrants (Figure A8 in the appendix). The overall null findings for egocentric economic concerns in experimental studies confirms previous cross-sectional studies that find mixed evidence for labor market competition as a core attitudinal driver (see, for example, Hainmueller and Hopkins 2015), which prompted a turn to sociotropic economic concerns in more recent studies (Hainmueller and Hopkins 2014 2015; Hainmueller and Hiscox 2010; Helbling and Kriesi 2014).

Sociotropic economic concerns

Sociotropic economic concerns suggest that host populations prefer migrants that benefit the overall economy and do not burden their country's welfare system. To explore this claim empirically, we look at differences in attitudes towards migrants across two dimensions: Figure 4 analyzes whether migrants with certain occupations are preferred, and Figure 5 evaluates the importance of migrants' language skills.

The meta-effects in these figures indicate that sociotropic concerns play an important role for host populations. Figure 4 shows that attitudes towards a migrant from a professional occupation are about 0.11 s.d. higher on the standardized scale than the average attitude (see Appendix B.2 Table A4). Attitudes towards workers and farmers are much lower, with an average estimate around 0.04–0.06 s.d. below the mean. Those unemployed are even less favored, scoring 0.24–0.26 s.d. lower. Moving towards language skills, Figure 5 shows that migrants who speak the country's language fluently score 0.14 s.d. above the average respondent, while those unable to speak the language score 0.16–0.19 s.d. lower.

Across both figures, most individual studies consistently find a preference for migrants with professional occupations and those that speak the local language. For example, Jeannet (2018) uses a survey-experimental design with respondents who are retired or close to retirement age in fourteen European countries and demonstrates that host populations retain their sociotropic orientation towards migration even after retirement. Only a few studies reveal much weaker, statistically insignificant or opposite preferences (see, for example, Margalit and Solodoch 2022; Shaffer et al. 2020). With regard to migrants' language ability, Denney and Green (2021) find a strong preference for migrants that speak the local language in South Korea, and conclude that 'broad sociotropic concerns largely drive attitudes towards immigrants' (p. 120) in comparison to other potential drivers.

[11]The Q_E heterogeneity test for between-study variation yields large and statistically significant results ($p < 0.001$ in the FE and RE models). For the education (mis)match case, the estimated study-level heterogeneity ($\hat{\tau}^2 = 0.02\%$) in the random-effects model amounts to over thirty-six per cent of the mean sampling variance of individual effect estimates. Both findings suggest substantial heterogeneity in effect sizes and precision between studies that is left unexplained by the attribute alone.

[12]Assessing egocentric concerns is challenging in this meta-analysis as we do not have detailed information on the respondent's skills level or occupation. Identifying job market competition may require more targeted approaches (e.g., see if a computer scientist is threatened by a computer scientist) (e.g., Malhotra et al. 2013).

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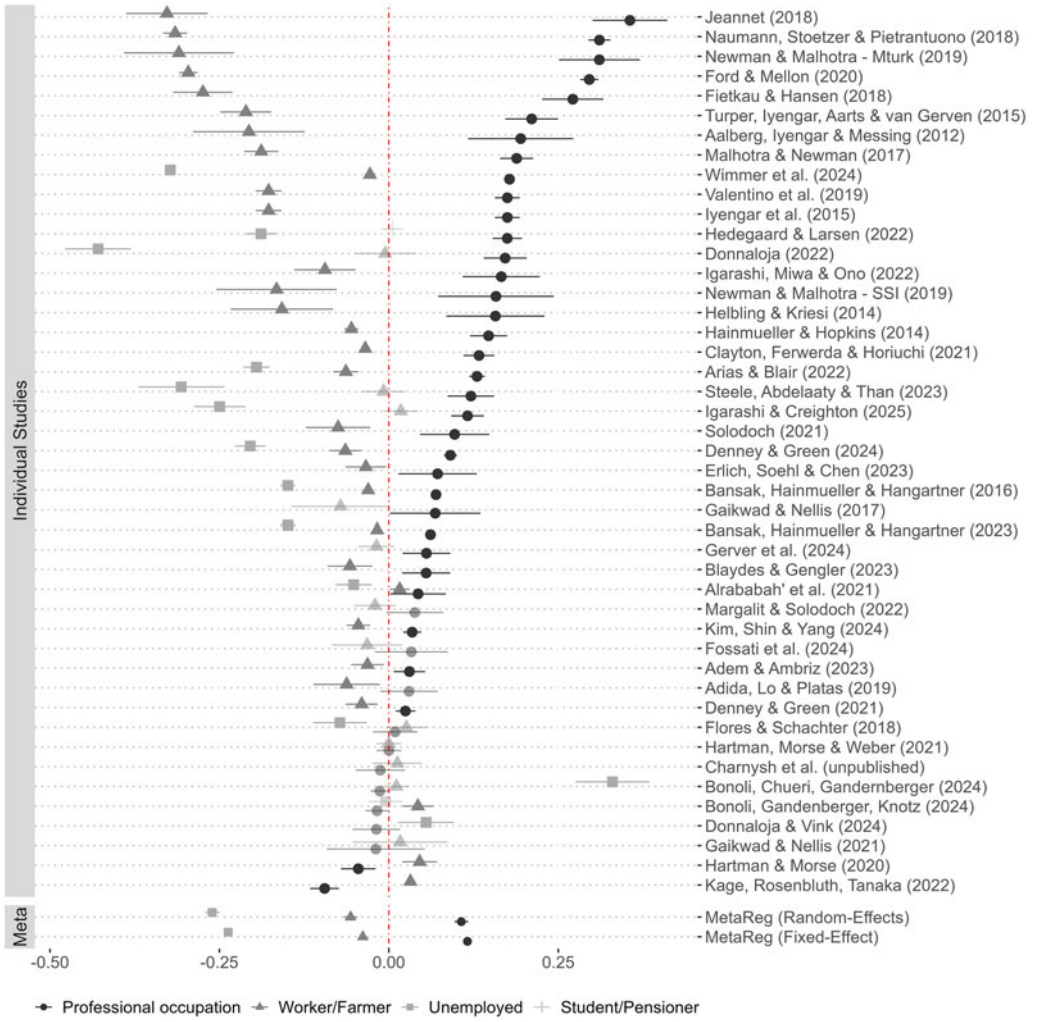

Figure 4. Sociotropic concerns: migrant occupation. The effect of migrant's occupation on positive attitudes towards migrants. Examples of professional occupations are scientists, doctors, teachers, programmers, or accountants. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on forty-five studies.

Although sociotropic concerns emerge as an important driver of attitudes towards migrants, the evidence for this finding is weaker in studies from developing country contexts. In both figures, individual study estimates are substantively smaller or not statistically significant in these contexts. For instance, the effect estimates for Erlich et al. (2023) in Ghana, Gaikwad and Nellis (2017) and Gaikwad and Nellis (2021) in India, Alrababa'h et al. (2021) in Jordan, Hartman and Morse (2020) in Liberia, and Hartman et al. (2021) in Syria are all ranked in the bottom half of Figure 4, suggesting small, potentially insignificant, or even contradictory effects of migrant's occupation on positive attitudes. A similar dynamic holds for migrants' language skills in Figure 5, with the two insignificant effect estimates from Cogley et al. (2019) and Shockley and Gengler (2024) originating from Côte d'Ivoire and Qatar, respectively. We return to the differences between developed and developing host country contexts below.

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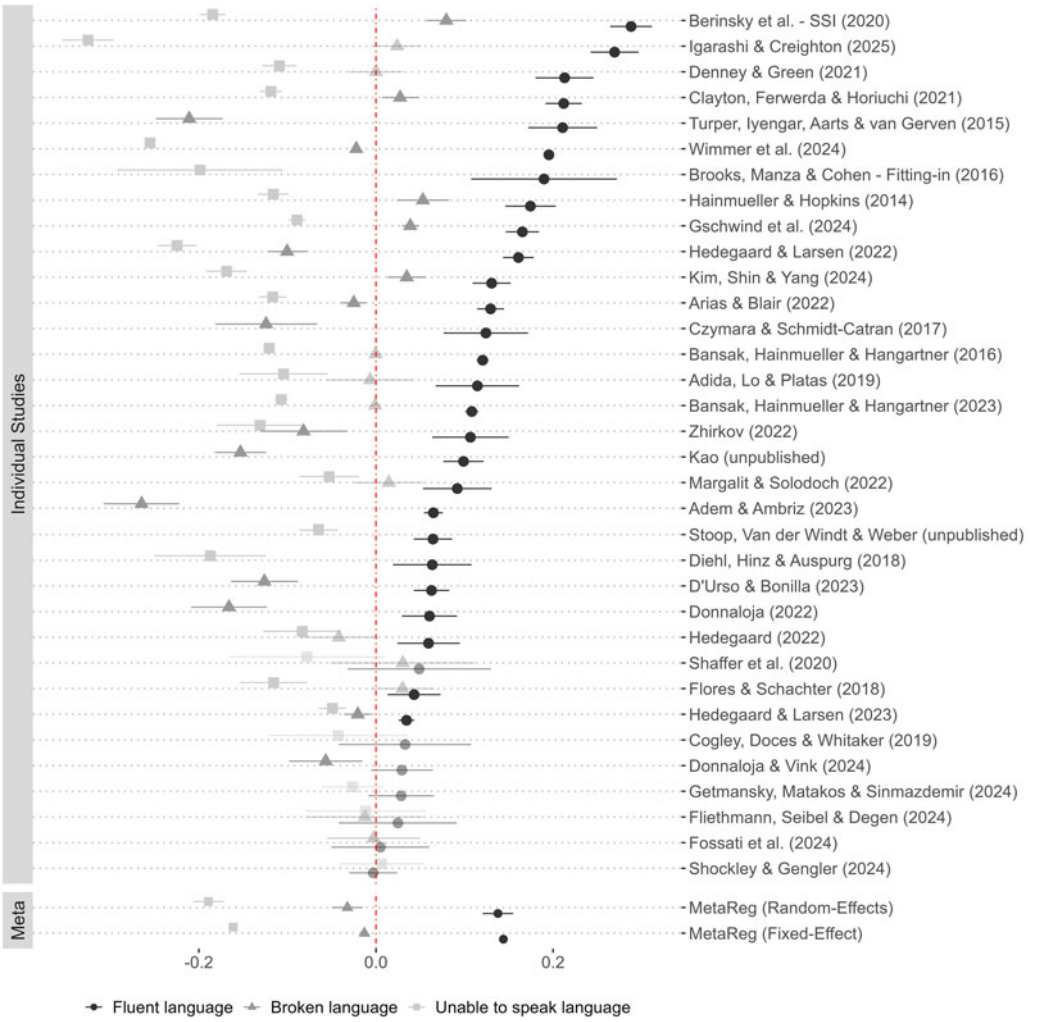

Figure 5. Sociotropic concerns: migrant language skills. Effect of migrant's language skills on positive attitudes towards migrants. The language skill levels of migrants refer to English or the local language in a given context. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on thirty-four studies.

Cultural concerns

A prominent, non-economic, concern is the idea that host populations fear migrants that are culturally distinct from themselves. We analyze this concern empirically, focusing on the role of geography and religion. Figure 6 assesses whether migrants from developing countries are disfavored, Figure 7 explores whether hosts prefer migrants from the same world region, and Figure 8 explores whether migrants' religion matters. To classify origin countries of migrants into developing and developed countries, we use the historical classification of the UN Statistical Commission (2022). We rely on the World Bank regional classification to assess whether there is a match in the world region between the respondent and the migrant.[13]

[13]We classify the country of origin and the country in which the study takes place into East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa.

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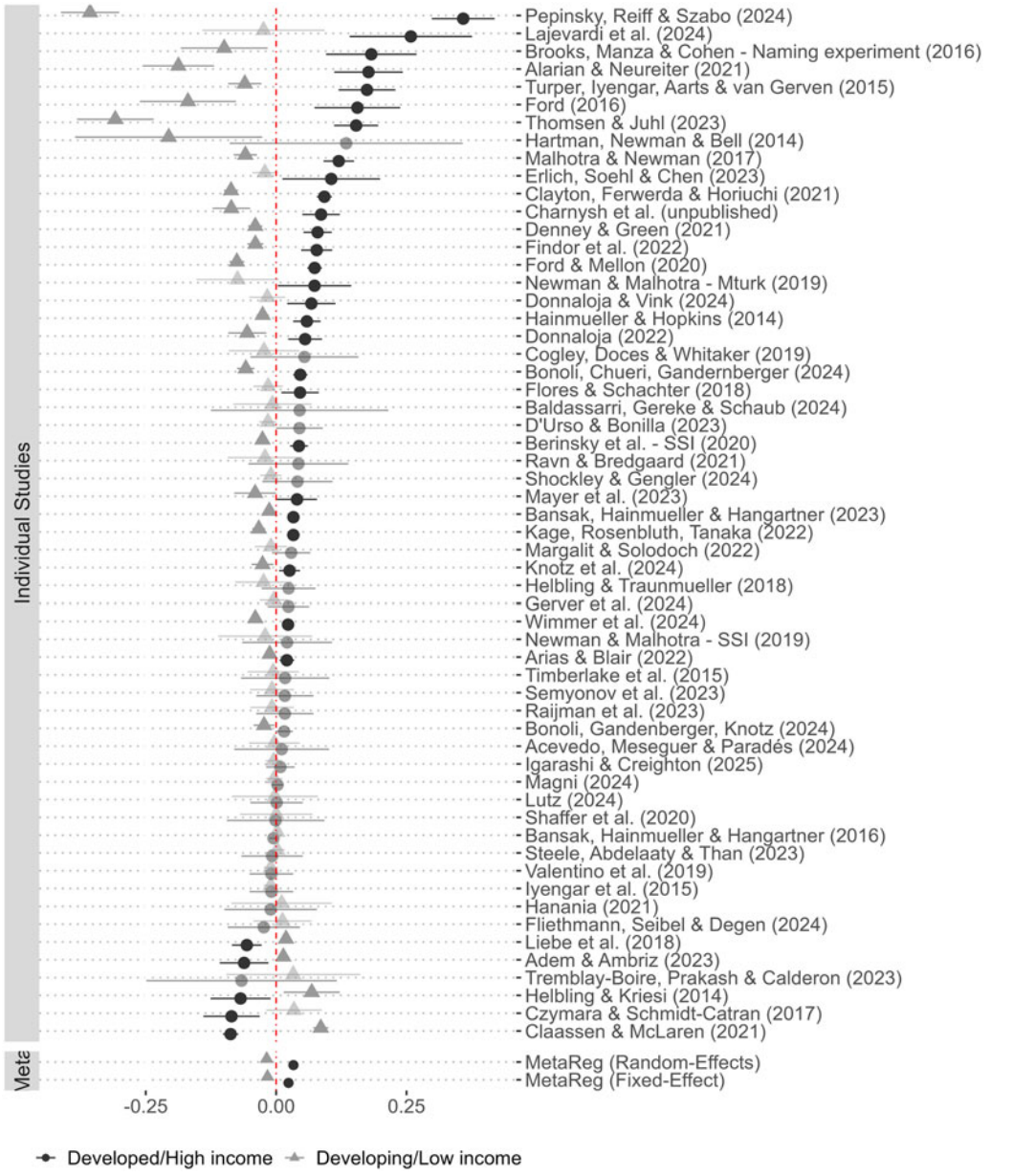

Figure 6. Cultural concerns: migrant origin from developing or developed countries. The effect of migrant's world region of origin on positive attitudes towards migrants. Developing and developed countries are distinguished based on the definition of the UN Statistical Commission (2022). Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on fifty-eight studies.

The three figures generally suggest that culture plays a complex role in shaping attitudes towards migrants. Figure 6 shows that there is a weak preference for migrants from developed countries as opposed to migrants from developing countries. We find that the meta-estimates are around 0.02 s.d. lower for developing countries (see Table A5 in Appendix B.3). Figure 7 shows that there is a preference for migrants from the same world region over those from different regions, but the effect size is again small, with the meta-estimates being close to zero (Table A5 in

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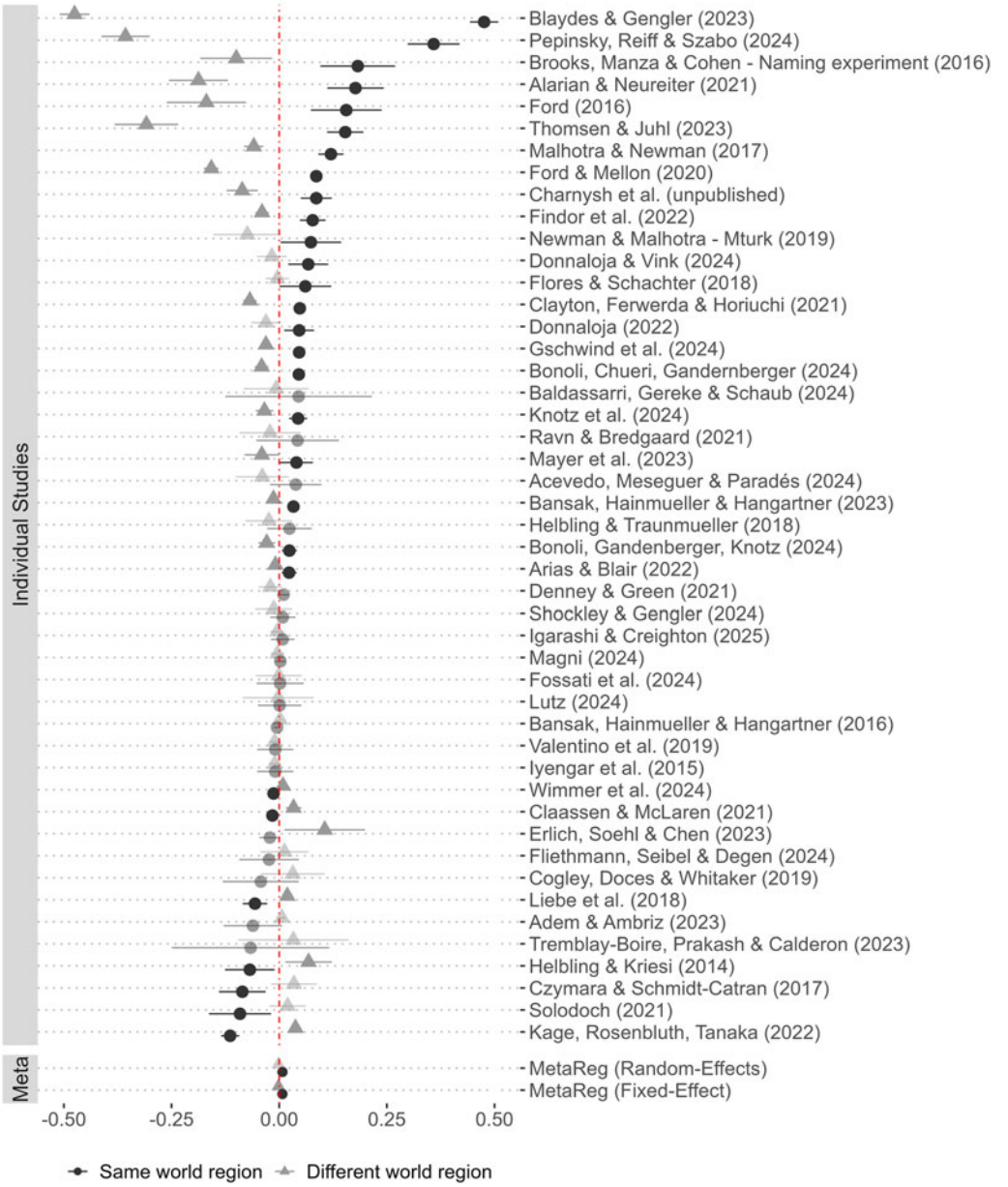

Figure 7. Cultural concerns: migrant and respondent region. The effect of the (mis)match of migrant's and respondent's world region on positive attitudes towards migrants. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on forty-seven studies.

Appendix B.3). Figure 8 does reveal a strong and systematic preference for Christian migrants over Muslim migrants. Christian migrants score 0.07 s.d higher than the average and with roughly the same magnitude symmetrically below the mean for Muslim migrants (see Appendix B.3 Table A5). Combined, these findings suggest that religion, more so than geography, shapes which migrants are welcomed or rejected.

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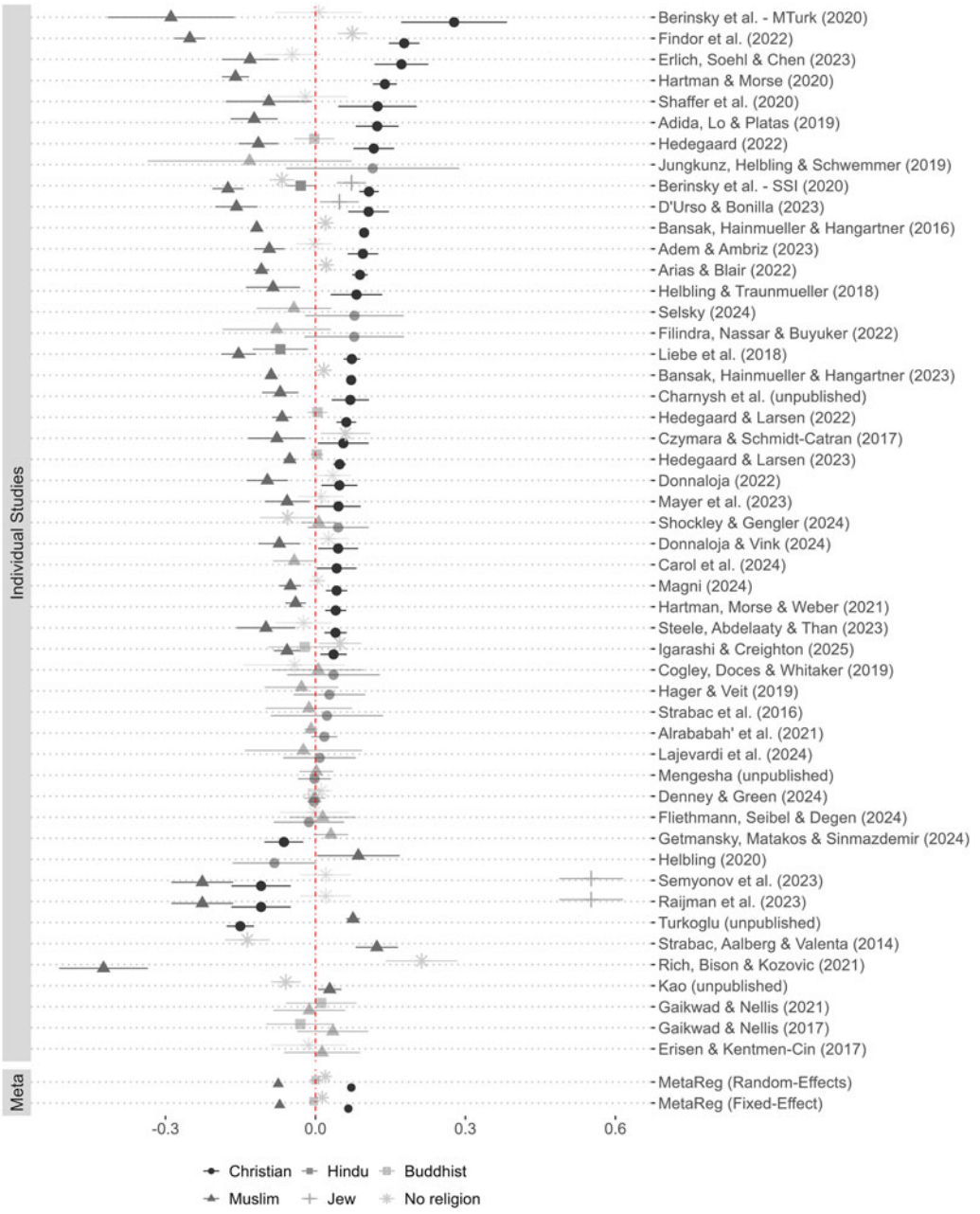

Figure 8. Cultural concerns: migrant religion. The effect of a migrant's religion on positive attitudes towards migrants. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on fifty studies.

The modest meta-effect estimates related to geography may reflect substantial variation across individual studies. Figures 6 and 7 show that while multiple studies suggest respondents prefer migrants from developed countries or migrants from the same world region (see, for example, Malhotra and Newman 2017; Turper et al. 2015), other studies obtain imprecisely estimated effects (Hartman et al. 2014; Ravn and Bredgaard 2021; Tremblay-Boire et al. 2023)

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or contrary findings (see, for example, Helbling and Kriesi 2014; Kage et al. 2022). One reason why cultural concerns appear less consistent at the meta-level compared to economic concerns may be that study contexts have distinct historical backgrounds shaping who is perceived as the cultural outgroup. For example, one of the strongest preferences for migrants from developed as opposed to developing countries is found by Brooks et al. (2016). In their experiment among US respondents, developed countries are represented by Canadian migrants, while migrants from Mexico and Pakistan represent developing countries. For anyone familiar with debates around migration in the United States, it is no surprise that a choice between Canadian and Mexican migrants is stark.[14] In contrast, Solodoch (2021) finds that migrants from the same world region are disfavored in the Netherlands compared to migrants from other world regions. This study, however, compares Turkey to Suriname and Indonesia; and whereas Turkey is a country in Europe and Central Asia just like the Netherlands, Suriname and Indonesia are in different world regions but do share an explicit colonial history with the Netherlands. Considering colonial legacies, it may not be surprising that a Dutch study population in 2021 disfavors Turkish migrants – perceived predominantly as Muslims – over migrants from Suriname and Indonesia. This study is one example of the fact that there is no one country or one world region across all studies that is disfavored but rather that these dynamics depend on the cultural similarities and differences between the origin and host population. To investigate this further, Figure A15 in the appendix examines how colonial legacies, geopolitical rivalries, and shared official languages shape migration preferences. On average, migrants from non-rival countries and those without shared colonial histories are preferred, while a common official language – often used as a proxy for cultural similarity – does not appear to affect preferences for migrants. The conclusion is that geography matters – as certain origin countries and regions are less preferred by hosts – but that cultural histories between countries shape, in a complex way, which migrants belong to the cultural ingroup or outgroup.

Religion also significantly influences migrant acceptance or rejection, with notably large effect sizes. The strongest results, as illustrated in Figure 8, can be found in Semyonov et al. (2023), where respondents in Israel favor Jewish over Muslim migrants, and in Rich et al. (2021), where respondents in South Korea are open to agnostic North Korean arrivals but not to Muslim refugees from Yemen. The findings in Figure 8 can be interpreted as a persistent and consistent anti-Muslim bias across the majority of study contexts (see, for example, Adida et al. 2019). Figure A9 in Appendix E.2 shows that Muslim migrants are not only viewed less favorably in Christian-majority countries, but also in countries with mixed religious compositions, secular majorities, or other dominant religions. Moreover, even Muslim-majority countries do not exhibit particularly strong pro-Muslim preferences. Although there is not enough systematic evidence from non-Christian countries to be conclusive, the evidence suggests a relatively wide-spread anti-Muslim bias. This is further corroborated by Figure A10 in the appendix, which explores how migrant and respondent religion interact. We find that Muslim migrants are preferred only by Muslim respondents, whereas Christian respondents and those of other religions view Muslim migrants less favorably. Finally, we observe a complex interaction between cultural and economic concerns. Figure A11 in the appendix illustrates that while unemployed migrants are consistently disfavored, among employed migrants (whether in professional occupations or as workers and farmers), only Muslims are viewed less favorably.

[14]In fact, all studies with Canada as one origin country in the design (Adem and Ambriz 2023; Brooks et al. 2016; Flores and Schachter 2018; Malhotra and Newman 2017; Newman and Malhotra 2019; Turper et al. 2015) find comparatively large preferences for developed countries.

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Humanitarian concerns

The final set of factors put forward in the literature relates to humanitarian concerns, with the expectation that people are more open to hosting migrants in need. Some studies have explored whether migrants suffering from post-traumatic stress disorder, physical sickness or disability, or migrants that explicitly rely on charity or face food insecurity are preferred over less vulnerable profiles. However, to cover a wide range of studies in our meta-analysis, we restrict our focus to two attributes that are often manipulated to vary levels of vulnerability: migrants' gender (Figure 9) and the reason for migration (Figure 10).

We find strong evidence that humanitarian concerns shape attitudes towards migrants.[15] Figure 9 shows that female migrants are preferred over male migrants. The average attitudinal gap is precisely estimated at around 0.1 s.d. in favor of female over male migrants (see Table A6 in Appendix B.4). In addition, we find that forced migrants – such as refugees, IDPs, and asylum-seekers – are generally favored over economic migrants (Figure 10). On average, host attitudes are 0.06–0.10 s.d. higher towards forced migrants and 0.10 s.d. lower towards economic migrants, respectively, relative to the mean attitude on the standardized scale ($p < 0.001$; see Appendix B.4 Table A6).[16]

Figure 9 shows that the preference for female migrants is found in almost all individual studies. In contrast, the preference for forced migrants over economic migrants is less consistent across studies (Figure 10). The heterogeneity in effect sizes is quite high, estimated to be approximately two to three times that of the average effect variance among the studies examined in each case (see Appendix B.4 Table A6). Nevertheless, there are only a few studies in which respondents disfavored forced migrants in comparison to other migrants with precisely estimated negative effects. Spilker et al. (2020), for example, conducted a conjoint experiment focusing on rural-to-urban migration in Kenya and Vietnam and found that persecuted internal migrants are least preferred compared to environmentally affected migrants and economic migrants. The authors explain this unusual finding by highlighting that persecution might not be perceived as a realistic movement motive by respondents in Vietnam and Kenya. Despite this effect heterogeneity, the overwhelming evidence is that vulnerable migrants – women and those forcibly displaced – are indeed preferred over other migrants.

In sum, we find that humanitarian concerns are a separate driver of positive attitudes towards migrants. Although sociotropic economic concerns suggest that host populations prefer capable migrants that make economic contributions, humanitarian concerns suggest that hosts are nevertheless open to welcoming the vulnerable. However, it should be noted that there is great variation in study designs exploring humanitarian concerns. This meta-analysis has focused on gender and the reason to migrate, but other studies have manipulated whether migrants have physical or mental disabilities or require food and assistance. The current literature lacks a unified conceptual framework that identifies reliable markers for migrant vulnerability across different contexts.

Economic Versus Forced Migrants

Do the same factors drive attitudes towards economic and forced migrants?[17] To study this question, we split the study population into cases where respondents were presented with profiles

[15]Another demographic variable that may relate to vulnerability and has been studied widely is age. In Figure A7 in the appendix, we show results for four age brackets: ≤25, 26–40, 41–59, ≥60. The finding that hosts prefer younger migrants (≤40) and are less favorable towards older migrants (≥60) aligns more closely with sociotropic economic concerns than with humanitarian ones.

[16]The analogous meta-estimates for a migrant seeking family reunion is about 0.06–0.08 s.d. above the mean and about 0.01–0.03 s.d. below the mean for climate migrants, although these two types of migrants feature in markedly fewer studies to support reliable inference.

[17]Focusing solely on forced migrants in their meta-analysis, Cowling et al. (2019) find that perceptions of refugees as threats were the strongest correlates of negative attitudes. Future work may want to use our study's dataset and leverage recent advances in causal machine learning to detect additional meaningful interactions.

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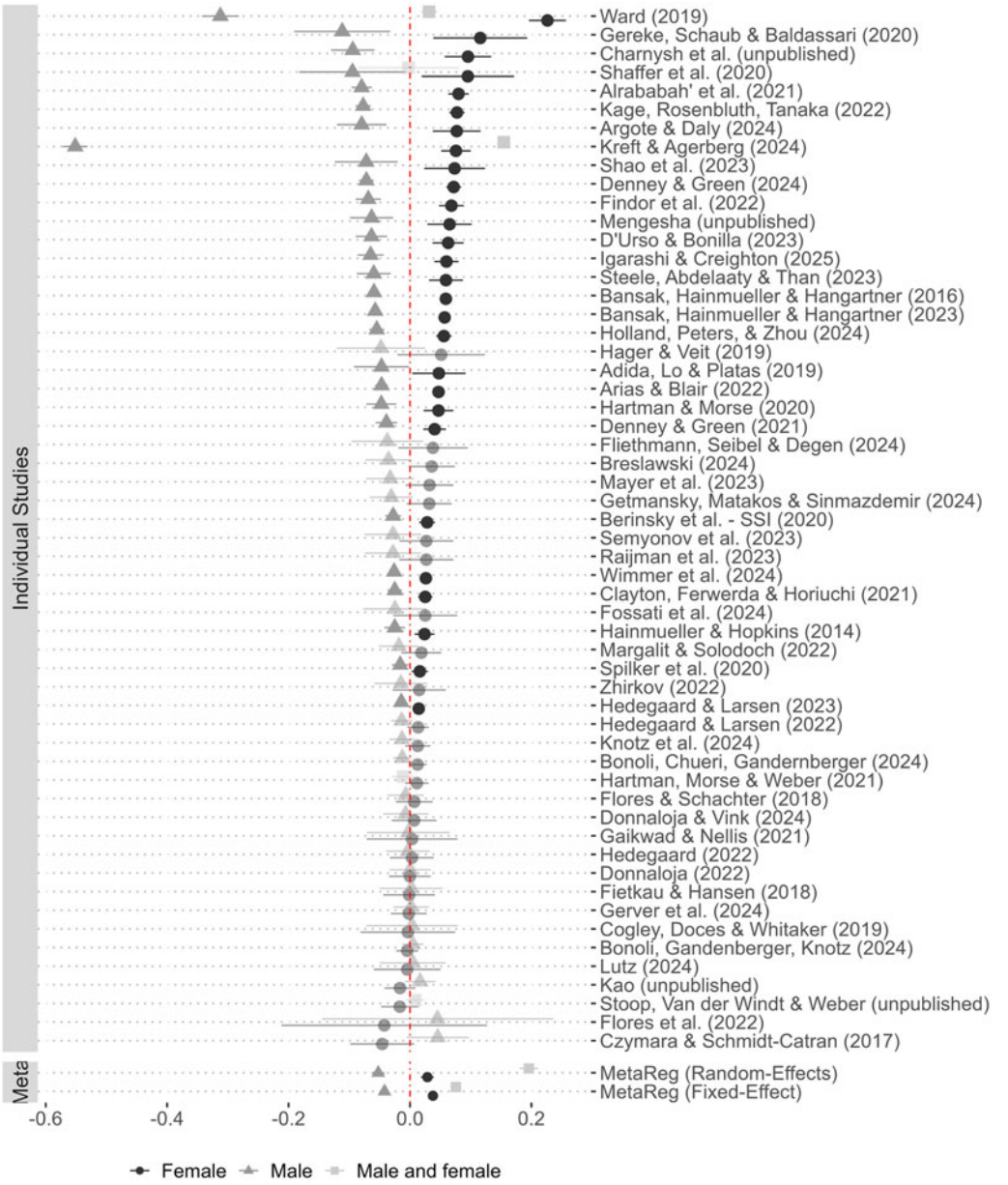

Figure 9. Humanitarian concerns: migrant gender. The effect of migrant's gender on positive attitudes towards migrants. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on fifty-six studies.

of either economic or forced migrants, and we re-estimate the individual study and meta-effects.[18] We want to explore whether – conditional on the framed reason why a person moves – different characteristics influence public attitudes towards migrants.

[18]We drop cases in which migrants move due to climate reasons or family reunification. The estimates for 'forced migrants' include cases in which either the whole study population was primed to think about refugees or IDPs or in which the specific attribute manipulating the reason to move presented a forced migrant. Equivalently, the estimates for 'economic migrants'

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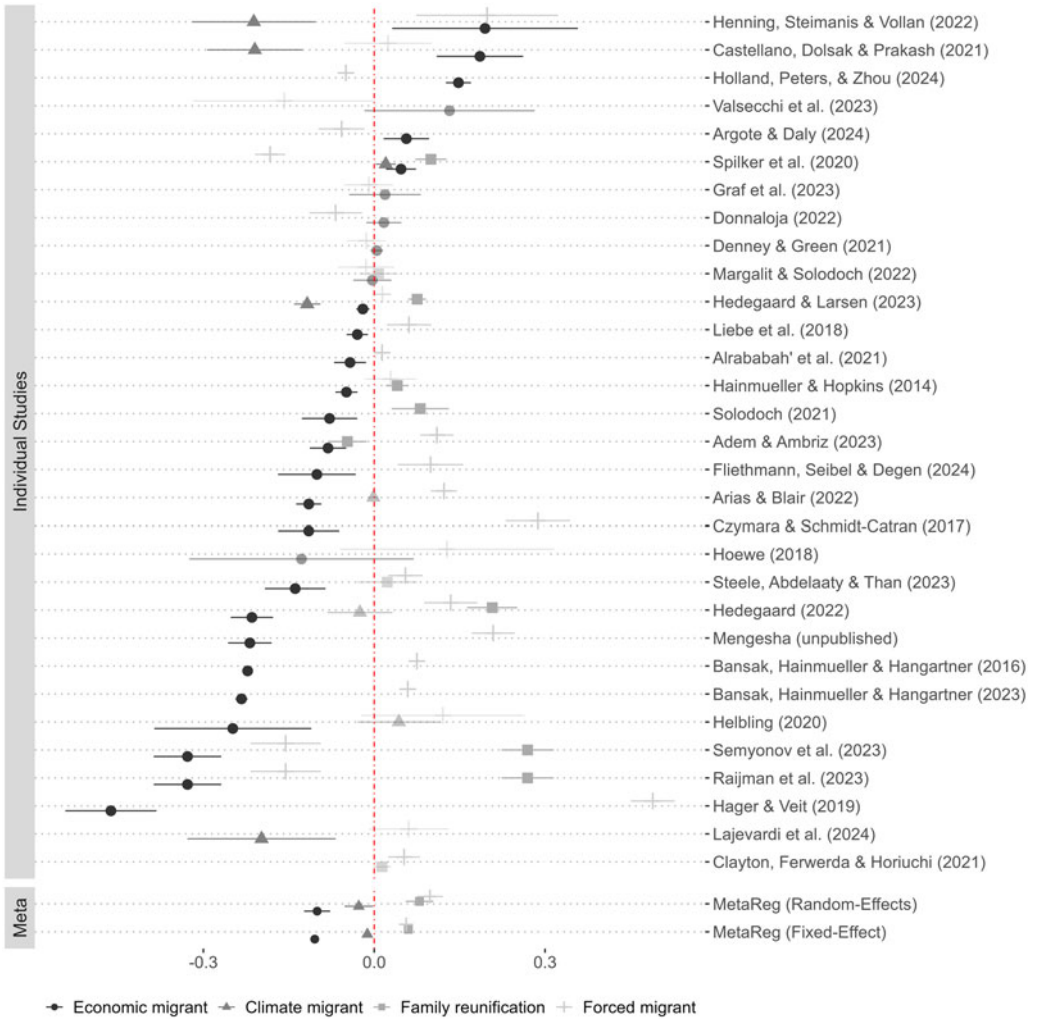

Figure 10. Humanitarian concerns: migrant reason for migration. The effect of migrant's reason to migrate on positive attitudes towards migrants. Individual study estimates and meta-estimates from random-effects and fixed-effect meta-regressions. All effects are expressed in standardized units. Meta-analysis based on thirty-one studies.

Figure 11 shows the results, presenting meta-estimates from random-effects models for economic migrants (dark gray dots) and forced migrants (light gray dots).[19] We present results only for those attributes that are manipulated in at least five studies. Many migrant characteristics matter similarly across both migrant types. For instance, we note a common preference for female migrants, Christian migrants, and those coming from the same world region, while Muslim migrants, those unable to speak the local language, and migrants from different regions are disfavored. The meta-estimates for cultural and humanitarian concerns are similar in size for both economic and forced migrants.

stem from studies in which all respondents were primed to think about labor migrants or the specific attribute manipulating the reason to move presented an economic migrant.

[19]The fixed-effect estimates are substantively similar to the random-effects estimates but omitted to simplify visualization. Full model results for both sets of model estimates are reported in Table A7 in Appendix B.5.

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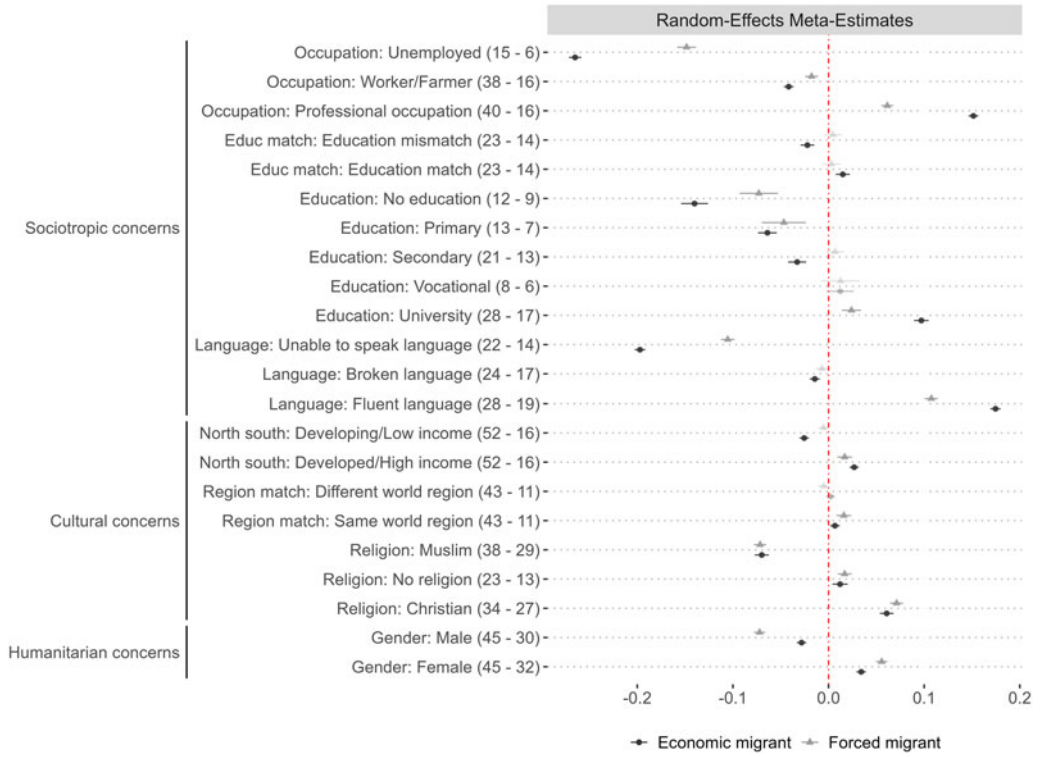

Figure 11. Economic versus forced migrants. Comparison between random-effects meta-estimates for cases in which an economic migrant is presented to the respondents versus for cases in which a forced migrant is presented. Only attributes used in at least five studies are included. The number of studies for each attribute level is shown in parentheses, with the first number referring to economic migrants and the second to forced migrants. See Appendix Table A7 for full results from fixed-effect and random-effects models.

However, the attributes related to sociotropic concerns generally matter more strongly for economic rather than for forced migrants. More explicitly, when evaluating economic migrants, respondents exhibit a clear preference for migrants that are highly educated and have a professional occupation compared to workers or farmers and those with no or only primary education. This pattern is weaker when respondents evaluate forced migrant profiles; here, occupation, education level, and language skills play a less significant role, with notably smaller point estimates. Although we should note that the number of studies that evaluate forced migrants is often smaller, these findings suggest that humanitarian concerns may indeed weaken the tendency of host populations to favor migrants that contribute to the economy.

Knowledge Gaps in Developing and Developed Contexts

Do respondents in developing countries perceive migrants in the same way as those in developed countries? To date, survey-experimental research has largely focused on migrant attitudes in developed contexts, most notably in Europe and the United States. Although interest in the developing world is growing, only 24/118 studies in our meta-analysis have surveyed populations in developing countries; most of these studies were published in 2023 and 2024. This focus is in part a reflection of the broader Eurocentric perspective on migration (Fiddian-Qasmiyeh 2020), but it may also be due to this study's narrow methodological focus on survey-experimental evidence. Looking beyond survey experiments, there is a rich and methodologically diverse literature that investigates the origins of inclusion and exclusion of migrants in developing

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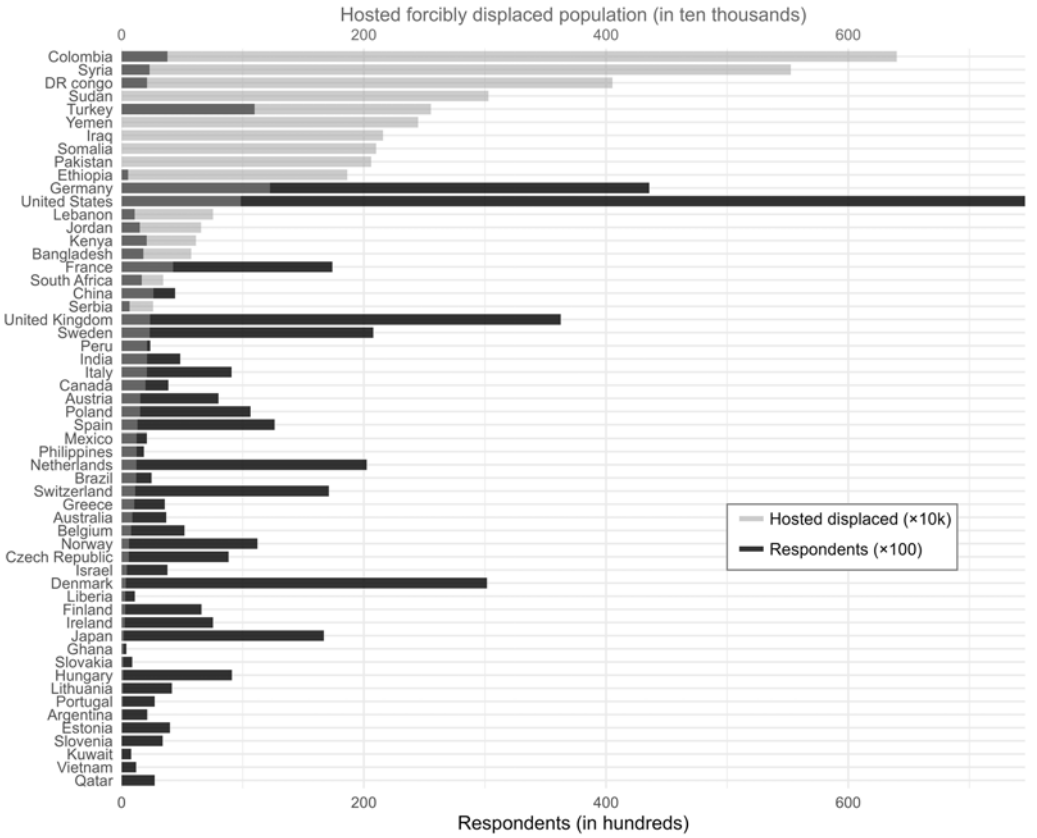

Figure 12. Study coverage and forced displacement. Gray bars display the annual average of forcibly displaced populations hosted per country between 2010 and 2020. Black bars show the number of respondents across the meta-analysis. The figure includes only countries that are in the meta-analysis or host over two million forcibly displaced. Data from UNHCR (2010–2023). Authors' own calculations.

countries. These studies document that economic competition between co-ethnic groups (Adida 2014), the unequal distribution of humanitarian aid between migrants and hosts, competition between domestic migrants and new arrivals (Grabska 2006), and the strategic framing of migrants as 'strangers' by political elites (Geschiere 2009; Jackson 2006; Landau 2010) shape who is welcomed or excluded in developing countries.

The misalignment between where migration occurs in the world and where attitudes towards migrants are studied in survey experiments is well illustrated in Figure 12. The figure plots the total number of respondents from each country included in this study – an indication of scholarly interest – to the number of forcibly displaced persons received by those countries between 2010 and 2020. The figure shows that Colombia, Syria, the Democratic Republic of the Congo, and Sudan host around 19 million forcibly displaced people in total; about a third of the global migrant population. Yet, these countries account for less than 2 per cent of study respondents.

A similar disconnect between scholarly interest and empirical reality, albeit less strong, exists for labor migration. While the well-represented populations of Europe and the United States in our meta-analysis are indeed popular destinations for international migrants, Saudi Arabia,

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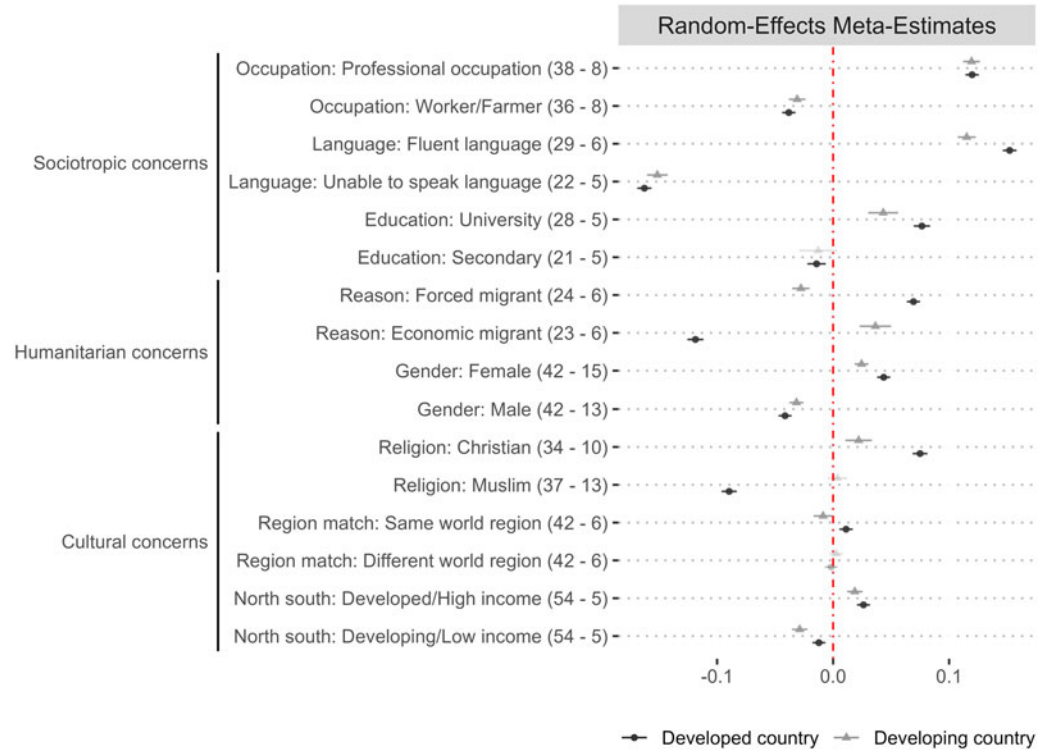

Figure 13. Comparison between developed and developing countries. Comparison between random-effects meta-estimates for cases in which a migrant is presented to respondents from developed versus developing countries. Only attributes used in at least five studies are included. The number of studies for each attribute level is shown in parentheses, with the first number referring to developed countries and the second to developing countries. See Appendix Table A8 for full model results using both fixed and random specifications.

Russia, Thailand, Malaysia, and Pakistan are all top twenty migration destinations globally (McAuliffe and Triandafyllidou 2021) but are not included in this meta-analysis.[20]

With fewer studies from the developing world, answering the question of whether similar drivers are at play in developed and developing contexts is challenging. Nevertheless, we attempt to do so in Figure 13, which shows random-effects meta-estimates. We require sufficient common support across studies and thus focus solely on attributes that appear in at least five studies in both developing and developed countries. We further focus on attributes that we analyze above in terms of economic, cultural, and humanitarian concerns.

We find that hosts in developed countries are more welcoming towards female migrants, Christians, and those with professional occupations compared to male migrants, Muslims, and workers or farmers. While we find similar results in terms of gender and religion in developing countries, we do not observe clear discrimination against Muslims; one explanation may be that many of the developing countries included in our analysis have Muslim-majority populations. Another stark difference is that respondents in developing countries prefer economic migrants over forced migrants. This finding suggests that perceptions of vulnerability, the openness to migrant workers, and ultimately the tension between humanitarian and economic concerns play out differently in developing countries.

[20]Europe hosts about 31 per cent of the global migrant population and North America has the second largest share of international migrants among their population (McAuliffe and Triandafyllidou 2021).

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Discussion and Conclusion

A growing body of literature aims to understand people's attitudes towards migrants. After nearly two decades of experimental research, it is time to synthesize the existing evidence and highlight knowledge gaps. In doing so, this meta-analysis complements existing efforts (Aviña et al. 2025; Cowling et al. 2019; Dražanová et al. 2024) to summarize the state of research on attitudes towards migrants.

Drawing on data from 118 studies comprising 428,881 respondents across fifty-three countries, which experimentally vary migrant characteristics, we investigate the role of the four primary theoretical drivers of migrant attitudes identified in the literature: egocentric economic concerns, sociotropic economic concerns, cultural concerns, and humanitarian concerns. The aggregated data further allow us to investigate whether concerns about migration are universal or vary across different country contexts and migrant types. These are questions that individual studies cannot address.

In sum, there is limited evidence for egocentric economic concerns; for example, fears of labor market competition in general do not seem to drive attitudes towards migrants. Instead, sociotropic concerns shape attitudes towards migrants, with host populations generally preferring migrants that contribute to the overall economy. These concerns matter in particular for migrants that move in search of economic opportunities but less so for those that are forcibly displaced. In addition, cultural concerns stemming from a migrant's geographical origin and religion lead to context-specific rejections of certain migrant profiles. The data uncover a widespread anti-Muslim bias, not only in Christian-dominated countries but almost universally. Finally, humanitarian concerns are important and particularly shape the reception of forcibly displaced populations.

Our synthesis, summarized in Table 3, demonstrates and reinforces an increasingly consolidated scientific consensus. In light of the still exponentially rising number of survey experiments on migration attitudes (see Figure 1), we suggest six avenues for cumulative research.

First, future studies should focus more on developing countries. Although developing countries are the largest receiver of forcibly displaced migrants, only 24/118 studies in this meta-analysis come from the developing world. Our findings suggest important differences between host community attitudes in developed and developing countries. We find that respondents in developing countries prefer economic migrants over forced migrants. In addition, there might be concerns that shape the reception of migrants in developing countries but that have received limited attention in the literature thus far because of the literature's focus on developed countries. Security concerns, for example, may shape how hosts perceive migrants, particularly when host communities have experienced violence, when migrants might be ex-combatants, or when the reception of migrants may signal wartime loyalties. More research is also needed to understand how humanitarian concerns play out in violent and fragile contexts where a large proportion of the hosting population has humanitarian needs themselves.

Second, to date we know little about how attitudes may differ towards different groups of migrant populations. For example, at the end of 2023, 117.3 million people were living in forced displacement; about half (68.3 million) found shelter within their country's borders (UNHCR 2024). One key comparison would thus be between attitudes towards migrants from within the country and those from abroad. In addition, a small but increasing number of studies explore how respondents think about individuals that move due to slow-onset climate change or climate-related disasters. Given the increasing scholarly attention on the wider societal impacts of the climate crisis, we anticipate a considerable rise in studies focused on the perceptions of 'climate migrants'. While the evidence from this meta-analysis is not sufficiently precise to draw strong conclusions, the tentative results indicate that climate migrants are not seen as being particularly vulnerable compared to refugees but also not as negatively as economic migrants.

A third avenue for research relates to sociotropic economic concerns. A key question is whether hosts in countries with higher social welfare provision hold stronger sociotropic economic

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Table 3. Summary of meta-analytical results. The table summarizes whether the meta-analyses generally find support for the key drivers of migration attitudes

Driver		Details
Egocentric economic concerns	✗	No convincing support
Sociotropic economic concerns	✓	Convincing support
Cultural concerns	(✓)	In particular religion, but context-dependent
Humanitarian concerns	✓	Further conceptualization needed
Forced v. economic migrants	✓	Sociotropic economic concerns more relevant for economic migrants
Developed v. developing countries	✓	No clear religious preferences in developing countries; more concerns over economic v. forced migrants

concerns towards migrants compared to hosts in countries with less social welfare. Only a few studies explore attitudes towards migrants receiving various forms of social benefits. Further comparative research may also want to explore whether shocks in the demand or supply of low- and high-skilled workers reduces, changes, or increases sociotropic concerns. Doing so is particularly relevant given the demographic shifts to older populations in middle- and high-income countries, making migration a potential source of critical labor supply. As of now, research is not able to predict in which contexts sociotropic concerns are the most dominant and how sociotropic concerns interact with welfare and labor demands.

Fourth, with regard to humanitarian concerns, there is a need to clarify what host populations understand when thinking of a 'vulnerable' migrant in need of humanitarian protection. Currently, there is limited conceptualization of markers of humanitarian concerns, which is illustrated by the wide range of attributes used across studies. For example, Bansak et al. (2016) and Bansak et al. (2023) study fifteen different European countries and find that host communities prefer more vulnerable migrants that are victims of torture, suffer from PTSD, have lost their families, or are handicapped. Here, vulnerability is conceptualized as a combination of exposure to violence and physical and mental health. Few other studies, however, test the same markers of vulnerability. As a result, this meta-analysis is not able to explore whether experiences of trauma (for example, exposure to violence, psychological damage, or physical injuries) as opposed to sociodemographic markers of vulnerability (for example, women, children, elderly) provoke a more humanitarian response to migrants.

Fifth, cultural concerns are context-dependent. Colonial and cultural legacies that are specific to study regions, populations, and respondents seem to shape which migrants are seen as part of the ingroup or outgroup. Critical migration scholars have highlighted the important role of European colonial legacies in Africa and the Middle East, and US interventions in Mexico and Latin America, for the type of migrant that is seen as illegal, criminal, and culturally distinct (Hamlin 2021, 15). To date, however, no quantitative study has systematically examined whether hosts are more or less likely to accept migrants from former colonies. We provide an exploratory analysis suggesting a preference for migrants who do not migrate from former colonies. However, we encourage more systematic research on the shared cultural histories of countries. This unexplored cultural context-dependency also means that little is known about how multilanguage and multi-ethnic societies define religious and cultural outsiders and what role these cultural concerns play in shaping attitudes towards migrants. Further research is needed to explore which cultural aspects distinguish migrants from the host community – whether it is religion, certain values and behaviors, or physical appearance.

Finally, the majority of studies assess whether hosts are willing to 'admit' a migrant or refugee to the country. However, individuals may respond very differently when asked about a migrant being admitted to the country compared to less abstract and more personal outcomes, like a

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migrant becoming one's neighbor or a migrant marrying one's child. There is some evidence that migrants who are already within the country receive a 'stock premium' of support compared to newly incoming migrants (Margalit and Solodoch 2022), but little research has assessed systematically whether attitudes depend on different subject areas and outcomes – ranging from admission to citizenship or welfare support. It is thus important to explore more systematically whether attitudinal outcomes shape migrant perceptions.

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Data availability statement. Replication data for this article can be found in Harvard Dataverse at: https://doi.org/10.7910/DVN/PQE0QS.

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