

What shapes the social perception of immigrant groups in Kazakhstan? The role of ethnic- and language-based identities and underlying threat and benefit perceptions

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ABSTRACT

In this study, we go beyond previous literature studying social perception of immigrant groups in Western, rich, educated, industrialized, and democratic contexts by contributing the first study of this kind in Kazakhstan, a multi-ethnic and multi-lingual country. Utilizing the stereotype content model framework, we investigated which immigrant groups are salient in Kazakhstani society (pilot study, $N = 401$). Building on these findings, we examined differences in warmth and competence perceptions across salient immigrant groups in Kazakhstani society in our main study ($N = 500$). Finally, we investigated the role of the ethnic and language-based identity of the perceiver in shaping the social perceptions for a subgroup of immigrant groups, and extended the stereotype content model framework with the threat and benefit model to investigate whether perceived societal threats or benefits explained these differences. Meaningful differences emerged along both dimensions of warmth and competence. Additionally, findings suggested that Russian-speakers perceived immigrant groups as warmer and more competent than Kazakh-speakers, which was explained by higher benefit rather than threat perceptions. Overall, we contributed novel insights on the social perception of immigrants and its determinants in a multi-ethnic and multi-lingual context, which we hope will provide a fertile ground for future investigations in under-researched areas and beyond.

Receiving society members' social perceptions of immigrants are an important factor determining the context of reception for immigrants to a new country (e.g., Kotzur et al., 2018). Research on this issue has typically focused on the role of institutions and legislation (see Fussell, 2014; Portes & Raumbaut, 2014) rather than relations between people within institutions and communities. Indeed, recent literature has begun to examine the latter, demonstrating that the social perceptions of immigrants among members of the receiving society are key for a welcoming social climate (Citrin et al., 1997; Okamoto & Ebert, 2016; Segovia & Defever, 2010), with important implications for relations between immigrants and receiving society members (e.g., Christ et al., 2014) and immigrants' identification with the receiving society (Jones-Correa et al., 2018).

Although an increasing literature focuses on social perceptions of immigrants and its determinants (e.g., Lee & Fiske, 2006; Kotzur & Wagner, 2021; Wagner et al., 2021), there is a paucity of studies doing so in Asian countries, such as Kazakhstan (see also Heinrich

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et al., 2010, who note that most research focuses on “WEIRD”, i.e., Western, educated, industrialized, rich, and democratic contexts). However, Kazakhstan, a multi-ethnic and multi-lingual state with a rich history of immigration, provides a unique context to study the social perception of immigrants for several reasons. As a country that has been under Soviet influence for decades, there are many immigrant groups present in Kazakhstan that have been historically been understudied. As such, research in this country context can provide novel insights regarding the perception of typically overlooked ethnic groups in Kazakhstani society; particularly, there has been no research to date on which of these many groups are saliently perceived as immigrant groups in Kazakhstani society, and to what extent social perceptions of these groups may align or differ. Second, given the multi-ethnic and multi-lingual make-up of society (where significant proportions of the population speak Russian and/or Kazakh), Kazakhstan provides the unique opportunity to ask novel questions regarding the extent to which social perception of immigrants is shaped by the perceiver’s own ethnic or language-based identity, as well as potential underlying mechanisms. In the present research, we focus on two potential underlying mechanisms: perceived threats (Riek et al., 2006) and benefits of the social groups to society.

Thus, in the present paper, our research aim are (1) to examine the salience of a range of immigrant groups in society (2) differences in the social perception, (3) the extent to which language and ethnic-based identity of the perceiver may shape the social perception of these groups (4), and to what extent threat and benefits perceptions mediate these latter effects. Although various theories and models can be used to investigate social perception of immigrants and related processes, we utilized the Stereotype Content Model (SCM; Fiske et al., 2002), as well as the threat-benefit model (Tartakovsky & Walsh, 2016) for this research.

First, we provide an overview of the unique background of Kazakhstan in relation to migration and the many ethnic groups and different languages that are situated in Kazakhstan. Next, we introduce the research questions and hypothesis and theoretical background we embed them in. Overall, we contribute unique insights into social perceptions and associated psychological mechanisms related to ethnic- and language-based identities and threat and benefit perceptions in an understudied post-soviet context.

Kazakhstan as a Multiethnic and Multi-Lingual Society

Kazakhstan today is a multiethnic state with many ethnic groups. Although Kazakhstan is not generally recognized as a prime destination for immigrants like European countries or the US, the country has experienced several notable waves of immigration, emigration, and internal migration, influenced by economic, social, and global political events in its recent and distant history. Kazakhstan’s territory has long been a cultural crossroads on the Great Silk Road and was later part of the Russian Empire (1860s–1917) and later the Soviet Union (1920–1991), which affected language use and ethnic dynamics. The population witnessed waves of forced migration and oppressive deportation of peoples with customs and traditions different from the local population. By the late 20th century, ethnic Kazakhs made up less than 40 % of the population (Aubakirova & Alekseenko, 2020). As of 2023, Kazakhs represent 70.7 % of the population, Russians 15.2 %, and Uzbeks 3.3 % (Bureau of National Statistics, 2023). In 2024, the population exceeded 20 million. Since Kazakhstan was part of the communist Soviet Union, Russian was the official language (Juan, 2024). While Kazakh is the official language in Kazakhstan today, Russian is still widely used and is recognized as an official language in state and governmental bodies alongside Kazakh. Russian also serves as a means of interethnic communication in the Post-Soviet Commonwealth of Independent States Kazakhstan is part of. As of 2021, 83.4 % of the population speaks Russian (Bureau of National Statistics, 2021).

Just before the independence from the Soviet Union in 1991, the Cabinet of Ministers of the Kazakh Soviet Socialist Republic decided to stimulate growth of the Kazakh population by allowing ethnic Kazakhs typically born and living abroad to repatriate. These returnees, initially termed Oralman (“those who returned”), were later officially renamed Qandas (“kinsfolk”) in 2020 (Law No. 327-VI). As such, Qandas are ethnic Kazakhs returnees from countries such as Mongolia, China, or other countries, who may or may not speak any of the local languages or may or may not follow local customs. According to the Ministry of Labor and Social Protection, over 1.11 million Qandas resettled in Kazakhstan between 1991 and 2023, while tensions between Qandas and other members of Kazakhstani society are documented in the literature (Aubakirova, 2023).

According to the International Organization for Migration, Kazakhstan is one of the top 20 migration corridors from Asian countries (International Organization for Migration, 2019). From 2020–2023, the world faced global challenges that had a significant impact on the dynamics of migration processes, including the COVID-19, bringing migration to the halt and increasing tensions between social groups fueled by fears of disease transmission (Hennebry & KC, 2020), as well as the military conflict between Ukraine and Russia raging at full force since 2022. Given geographical proximity, Kazakhstan has become a country that has faced a large number of immigrants since then: According to the Ministry of Internal Affairs of the Republic of Kazakhstan (2022), 2,900,000 immigrants from the Russian Federation entered the country, with 146,000 Russians remaining to live in Kazakhstan (GOV.KZ, 2022).

Thus, modern Kazakhstan is a multi-ethnic and multi-linguistic country with a rich history of migration, and as such a great testing bed for novel research questions related to social perceptions of immigrants and beyond.

Which immigrant groups are salient in Kazakhstan?

Given the rich history of immigration to Kazakhstan over several waves over ancient and recent time, as well as the paucity of empirical studies examining the social perception of immigrant groups in Kazakhstan, one fundamental question that needs addressing is which ethnic groups are perceived as immigrants by the receiving society population, including groups that have historically been understudied. For instance, Qandas are ethnic Kazakhs who typically were born and have lived abroad, but it is unknown whether they are perceived as immigrants. Additionally, given the many ethnic groups living in Kazakhstan, ranging from Qandas to ethnic Russians who have been a part of Kazakhstani society for a long time, knowledge about who the most salient immigrant groups are in

Kazakhstani society can help us to address our follow-up questions, we introduce further below. Thus, our first research question is:

Research Question 1. : Which ethnic groups are perceived as immigrants by the receiving population of Kazakhstan?

Are there any differences between the social perception of immigrant groups in Kazakhstan?

Since the social perceptions of immigrants among members of the receiving society are key for a welcoming social climate (Kotzur et al., 2018), it is important to understand the perception of salient immigrant groups in society. Various theories and models can be used to assess the social perception (see, e.g., Abele et al., 2021, for an overview). In this study, we utilized the Stereotype Content Model (SCM, Fiske et al., 2002), which has been successfully used to assess the content of social stereotypes towards social group not only in the United States (Lee & Fiske, 2006), but also in a number of European (e.g., Durante et al., 2017; Froehlich & Schulte, 2019; Kotzur et al., 2017; Kotzur et al., 2019) South American (Schemmerling et al., 2023), African (Friehe et al., 2022) and Asian countries (Cuddy et al., 2009; Grigoryev et al., 2019).

In brief, the SCM suggests that groups, such as immigrants, are perceived on two fundamental dimensions – warmth, related to the friendliness of intentions of the group, and competence, which relate to the group's ability to enact these intentions. These two dimensions are theorized to be predicted by competition/threat (Kervyn et al., 2015) and social status, respectively and open up a two-dimensional space, where groups can typically fall into one of four quadrants: low warmth and low competence (typically despised groups; e.g., in the US, homeless); high warmth and low competence (typically pitied group; e.g., the elderly); high warmth and high competence (typically admired groups; e.g., physicians); and high warmth and low competence (e.g., business men).

Previous research found that immigrant groups within different country context differ significantly in their warmth and competence perceptions, including the United States (Lee & Fiske, 2006) Germany (Bick et al., in press; Froehlich & Schulte, 2019; Kotzur et al., 2017; Kotzur et al., 2019) and Russia (Grigoryev et al., 2019). It is worth noting that the Grigoryev et al.'s (2019) study is the first of its kind to study social perception towards immigrants using the SCM in the Central Asian region. Although we do not have expectations which specific immigrant groups will emerge as salient in our study, we expect that different ethnic groups of immigrants have different levels of warmth and competence according to the SCM:

Hypothesis 1. Perceived warmth and competence will differ significantly among different immigrant groups in Kazakhstan.

What is the role of ethnic and language-based identity in shaping social perception towards immigrants in Kazakhstan?

In the literature, there are two common approaches to explain receiving society members' social perception of immigrants. One concerns competition over resources (e.g., Sherif & Sherif, 1953), while the other concerns social conflict. Indeed, both perspectives have been integrated in the SCM framework, with competition and threat being theorized and shown as significant predictors of warmth perceptions (Fiske et al., 2002; Froehlich & Schulte, 2019; Kervyn et al., 2015), and threat has been shown to be significantly associated with competence perceptions (Froehlich & Schulte, 2019). Indeed, social identity theory and related theories suggest that conflict arises by divide people into “us” and “them”, and elevating one's own group status by treating and evaluating outgroup more negatively (Tajfel & Turner, 1979).

In previous research, ethnic identity has been typically examined on its own as a predictor of social perception (e.g., Byrne, 2011), because ethnic identity is typically the most relevant distinction between ingroup and outgroup in intergroup research. However, given the ethnic diversity and use of different languages in Kazakhstan, speaking Kazakh versus Russian emerges as an additional salient potential identity marker which may color social perceptions. Thus, we provide a novel test whether ethnic and linguistic identity of the perceiver may influence the level of perceived warmth and competence toward different immigrant groups:

Hypothesis 2. Ethnic and linguistic identity of the receiving society member influence the perceived level of warmth and competence towards different groups of immigrants in Kazakhstan.

Do threat and benefit perceptions mediate the effect of ethnic and language-based identity on social perception towards immigrants in Kazakhstan?

One reason why ethnic and language-based identities may shape social perception of immigrants is that these identities shape to what extent different immigrant groups may be perceived more or less as a threat and/or benefit to the ingroup and society. Indeed, classic social psychological theories and contemporary empirical studies converge those various threats – related to resources (realistic) or culture and values (symbolic) – shape intergroup perceptions and behavior (Landmann et al., 2019; Riek et al., 2006; Sherif & Sherif, 1953; Tajfel & Turner, 1979), which has also been acknowledged in the SCM framework (Kervyn et al., 2015). For instance, the level of perceived threat towards different immigrant groups in Germany predicted both warmth and competence perceptions (Froehlich & Schulte, 2019).

What has been less well-studied is to what extent the positive counterpart to threats – perceived benefits – impact social perceptions, and to what extent they may be shaped by ethnic or language-based identities. Indeed, the threat-benefit model suggests that social groups are not only associated with threats, but also perceived benefits (Tartakovsky & Walsh, 2016). Such benefits can include benefits to the economy (realistic) and culture and values (symbolic). For instance, a study of Israeli Jews' social perception of immigrants from the former Soviet Union, Ethiopia, the USA, the UK, and France, and refugees, and found that the local population assessed each group of immigrants differently, and that threat and benefit perceptions differed as well, with refugees being perceived

as the most dangerous and least beneficial to society (but see Valenzuela et al., 2024, who did not find significant relationships between warmth/competence and threat/benefits in the US¹).

In the context of Kazakhstan, language and ethnicity may shape the perception of immigrant groups based on the country's historical, social, and cultural background via perceived threat and benefit perceptions. For example, given Kazakhstan's history of Russification, Russians may evoke more negative perceptions for ethnic Kazakh and Kazakh speakers based on lower threat and higher benefit perceptions. Contributing to this literature, we argue and test the following:

Hypothesis 3. We expect a relationship between threats/benefits and warmth/competence and that threats/benefits will mediate the effect of ethnic and linguistic identity of receiving society members on the perceived level of warmth and competence towards different immigrant groups in Kazakhstan.

In sum, we offer (1) an examination of the salience of a range of immigrant groups in society, (2) test differences in the social perception of these immigrant groups, and (3) the extent to which language and ethnic-based identity of the perceiver may shape the social perception of these groups (4), and investigate to what extent threat and benefits perceptions mediate these effects. Overall, we contribute unique insights into social perceptions and associated psychological mechanisms related to ethnic- and language-based identities and threat and benefit perceptions in an understudied post-soviet context.

Methods

Ethical considerations

The study was conducted in accordance with internationally accepted ethical standards. Ethical approval was obtained from the Research and Ethics Committee of the School of Liberal Arts M. Narikbayev KAZGUU University, with approvals granted for both phases of the study: extract from protocol No. 2, dated September 25, 2023 (pilot study), and extract from protocol No. 29, dated May 21, 2024 (main study). Data collections were conducted in accordance with both international and national research standards, including the International Code on Market and Social Research (ESOMAR) and the Code of Professional Researchers of Public Opinion and Market of Kazakhstan (KAPIOR). All methods were performed in accordance with the relevant guidelines and regulations, including those of the American Psychological Association (APA) and the Declaration of Helsinki. Prior to participation, all individuals were informed about the aims and procedures of the study. Informed consent was obtained from all participants. Participation was entirely voluntary, and respondents were guaranteed anonymity and confidentiality. No personally identifying information was collected or stored, and all data were used exclusively for academic research purposes.

Study design and procedure

To approach our research goals, we followed previous SCM research (e.g., Fiske et al., 2002) by conducting a two-stage mixed-methods study, consisting of a pilot (conducted from October to November 2023) and a main study (June to July 2024), which were conducted independently. The pilot study data were collected via household visits by a professional agency (the Center for the Study of Public Opinion (CIOM, Kazakhstan), the main study data by an independent team of researchers.

Surveys were carried out using standardized, face-to-face interviews. The sample was constructed using a quota-based sampling method to achieve balanced demographic representation. Surveys were administered by trained interviewers using tablet devices. Each interview was audio-recorded to ensure data quality and transparency. Participation in the study was voluntary, and respondents were assured of confidentiality and anonymity. Informed consent was obtained from every participant prior to participation or recording.

During the pilot stage ($N = 401$), participants responded to open-ended questions designed to address the question of which immigrant groups are most salient in society, and to elicit spontaneous associations with these groups. The questionnaire included a glossary of key terms related to migration and intergroup perception. Respondents were asked to name at least three ethnic, professional, or social groups they viewed as migrants in Kazakhstan. To identify groups for subsequent quantitative assessment, a frequency analysis was applied, following the approach originally proposed by Fiske et al. (2002). Accordingly, ethnic groups that were frequently mentioned were retained for use in the next phase of the study, alongside groups we added due to theoretical considerations.

In the main study ($N = 500$), participants rated various ethnic immigrant groups on the two stereotype dimensions, warmth and competence to answer Hypothesis 1 concerning differences in warmth and competence perceptions across immigrant groups. To answer Hypotheses 2 and 3 concerning the role of ethnic and language-based identities shaping these perceptions and the mediating role of threat and benefit perceptions, a subset of four groups which were most frequently mentioned in the pilot phase were selected to collect data on these additional constructs to avoid overburdening participants. For online supplementary material (OSM), including original datasets used in this study, outputs, and syntaxes, please see the Open Science Framework (OSF) project page, <https://osf.io/6n7je>.

¹ Deviating from Valenzuela et al. (2024), we conceptualize perceived threats and benefits as predictors of warmth and competence perceptions, in line with previous work that has conceptualized threats as predictors of stereotype content dimensions (Kervyn et al., 2015).

Participants

For both phases, eligible participants were adult residents of Kazakhstan aged between 18 and 70 years. Sampling and recruitment strategies were designed to ensure demographic and linguistic representation relevant to the study objectives, while accounting for the sensitive nature of the research topic. As such, snowball sampling was used with the aim to recruit samples that are balanced in terms of ethnic, linguistic, and regional representation (with a softer application of these criteria in the pilot survey), while ensuring sufficient heterogeneity across the key demographics gender and age (e.g., [Atkinson & Flint, 2001](#)). Participants received 1000 Kazakh tenge as an incentive for participation (equivalent to 2.1 US-Dollars at the time of data collection).

In the pilot phase, the sample size was determined to ensure sufficient variation in open-ended responses for exploratory identification of immigrant-related group categories. Participants were selected from diverse regions of Kazakhstan (Almaty, Shymkent, Turkistan, Oral, and Aktobe) to reflect the general urban-rural and ethnic distribution. The pilot study included $N = 401$ participants (Suppl. Table 1), with a mean age of 40.9 years ($SD = 12.7$). The sample was predominantly female (63.1 %) and urban-dwelling (64.6 %), with the majority identifying as ethnically Kazakh (49.9 %) or Russian (25.9 %). Most participants reported using Russian as their primary language (62.6 %), and the majority were employed (58.4 %) and married (60.1 %). Over half (54.6 %) held a graduate degree, while the religious composition of the sample was mainly Muslim (66.3 %).

The main study included $N = 500$ participants (Suppl. Table 2), with a mean age of 40.6 years ($SD = 13.0$), with balanced representation across Kazakhstan's 17 regions and three major cities (Astana, Almaty, Shymkent). The sample was nearly equally divided by gender (50.2 % male, 49.8 % female) and ethnicity (50.0 % Kazakh, 50.0 % Russian), providing a demographically and ethnically balanced basis for analysis. To assess the role of linguistic identity alongside ethnic identity in predicting perceived threats, benefits, and social perceptions, the Kazakh group was further stratified by language use. This resulted in the following subgroups: $n = 125$ Kazakh-speaking ethnic Kazakhs, $n = 125$ Russian-speaking ethnic Kazakhs, and $n = 250$ ethnic Russians (all Russian-speaking). The majority resided in small cities (81.0 %), while 18.4 % lived in major cities and a very small minority (0.5 %) reported living in rural areas. Nearly half of participants (46.8 %) held an undergraduate degree, and an additional 38.0 % had a special-secondary diploma. 1.2 % had completed postgraduate education. 66.2 % of respondents were employed, while 15.4 % were self-employed, and 7.0 % were students. Most participants were married (63.4 %). 50.0 % were Muslims.

Measures in pilot survey

Participants were asked to freely list up to three groups they perceived as immigrant groups in Kazakhstan, as well as further information not relevant for the purpose of the present study, using the following prompt adapted from [Friehts et al. \(2022\)](#): "Name the ethnic, professional (representatives of specific professions) and/or social groups (community of people) who entered Kazakhstan for temporary or permanent residence from other countries. Please give three answers about each group, indicating the country, and possible reasons and purposes for entering Kazakhstan." In addition to this very first prompt, participants were asked a number of additional questions not further relevant for the purpose of the present study.

Measures in main survey

Social perception

Social perception of immigrant groups was assessed using scales of perceived warmth and perceived competence, based on the SCM as used in [Friehts et al. \(2022\)](#). Each construct was measured using six descriptive traits, which were carefully selected to be equally applicable across various ethnic immigrant groups. The warmth scale included six traits: good-natured, cooperative, likeable, honest, trustworthy, and well-intentioned. The competence scale consisted of six traits: capable, competent, efficient, influential, assertive, and persistent. All items were rated on a 5-point Likert scale ranging from 1 (Not at all) to 5 (Extremely). Consistent with the original SCM protocol ([Fiske et al., 2002](#)), participants were instructed to rate the traits from the perspective of Kazakhstani society as a whole, rather than expressing their own personal attitudes. This approach aimed to reduce social desirability bias and reflect widely shared societal stereotypes ([Kotzur et al., 2020](#)). The Russian-language version of the instrument was previously developed by [Friehts et al. \(2022\)](#) through parallel translation ([Harkness, 2003](#)) from English. We used the same procedure for the Kazakh-language version, ensuring conceptual and linguistic equivalence across languages.

Perceived threats and benefits

Perceptions of immigrants' impact on Kazakhstani society were assessed using a modified version of the Threats-Benefits Inventory ([Tartakovsky & Walsh, 2016](#)). While the original scale included 38 items across eight dimensions: Economic threats, physical threats, threats to social cohesion, threats to modernity, economic benefits, cultural diversity benefits, humanitarian benefits, and social cohesion benefits; we utilized a shortened version designed for efficient administration within a large-scale survey. Specifically, we selected one item for each of the eight dimensions we deemed most representative of the dimension and relevant to the study of immigrant groups, accompanied by illustrative examples derived from the original scale to clarify the context. Participants responded to each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). For example, physical threat was assessed by the item: "Do you agree that [immigrant group] pose a physical threat to citizens of Kazakhstan (e.g., involvement in criminal activity and/or spread of diseases and infections)?" Similarly, economic benefit was assessed with the item: "Do you agree that [immigrant group] provide economic benefit to Kazakhstani citizens (e.g., willingness to work in low-paid jobs)?" These items were

repeated for each of the 4 immigrant groups which were most frequently mentioned in the pilot study. This approach allowed the study to capture key aspects of threat and benefit appraisals while maintaining participant engagement and minimizing respondent burden.

Ethnic and language identity

In the main study, participants were selected using quota-based sampling to ensure adequate representation across ethnic and language identity groups. Prior to participation, individuals were screened for self-identified ethnicity (Kazakh, Russian, Uzbek, Ukrainian, and Other) and primary language use (Kazakh, Russian or Other). Only those who identified as either ethnically Kazakh (ethnicity = 0) or Russian (ethnicity = 1), and who reported speaking either Kazakh (language = 0) or Russian (language = 1) as their main language, were included in the final sample.

Results

Pilot study

Which immigrant groups are salient in Kazakhstan?

In the pilot study, open-ended responses were subjected to frequency analysis to identify the most frequently mentioned immigrant groups to address research question 1. This analysis also informed the selection of ethnic categories for inclusion in the main quantitative phase. Given the broad prompt, which served additional purposes also beyond the current study, we focused on the $n = 758$ responses of the overall $N = 1199$ responses provided (63.2 %) that focused on ethnic groups for our analyses.² Results of these analyses are summarized in Table 1. The most frequently mentioned group was Uzbeks (39.7 %), followed closely by Russians (35.9 %) and Qandas (ethnic Kazakhs returning from abroad, 26.9 %). Other notable groups included Chinese (18.7 %), Hindus (14.5 %), Turks (10.5 %), Tajiks (10.2 %), and Kyrgyz (9.7 %). Less frequently mentioned groups were Ukrainians (3.0 %), Afghans (1.5 %), and Pakistanis (1.2 %). Although Turkmen were not identified in this stage, we added them to the subsequent study due to theoretical interest, given their geographic and cultural proximity to Kazakhstan, as evidenced by their shared border and historical influences of the Russian Empire and Soviet Union.

Based on these results, twelve immigrant groups (Uzbeks, Russians, Qandas, Chinese, Hindus, Turks, Tajiks, Kyrgyz, Ukrainians, Afghans, Pakistanis, and Turkmen) were included in the main study, along with three non-immigrant societal reference groups known to occupy specific quadrants in the SCM space cross-culturally which we used as anchors for our findings: elderly people (high warmth/low competence), businessmen (low warmth/high competence), and homeless individuals (low warmth/low competence; Durante et al., 2017).

Main study

All following statistical analyses were conducted using IBM-SPSS Statistics (Version 27), Mplus (Version 8.5 or higher), or R (Version 4.0.4 or later), employing relevant packages including MplusAutomation, openxlsx, and rstudioapi. Participants could skip any questions they preferred not to answer. To handle missing data, we used robust full-information maximum likelihood (MLR) estimators for all model-based analyses. This approach, recommended for its ability to provide unbiased parameter estimates based on the observed variance-covariance matrix, is considered a best-practice strategy for handling incomplete data in structural equation modeling (Enders & Bandalos, 2001).

Are there any differences between the social perception of immigrant groups in Kazakhstan?

In preparation of the main analyses to address our hypotheses, we first tested the factorial structure and measurement invariance of stereotype content dimensions (warmth and competence) across groups using the ShinyApp ACAMIA (Schemmerling et al., in press), an open-source R-based tool that automates multi-group confirmatory factor analysis (MG-CFA) and measurement invariance (MI) testing. ACAMIA systematically identifies the best-fitting and most parsimonious measurement models across multiple group configurations and tests measurement invariance (MI) across groups based on parameters set by the researcher.

In our study, we configured ACAMIA to evaluate the model across the 12 target immigrant groups and 3 societal reference groups (elderly, businessmen, and homeless people). We specified model fit criteria of $CFI \geq 0.95$, $RMSEA \leq 0.08$, and $SRMR \leq 0.10$ (Schermelleh-Engel et al., 2003) using robust maximum likelihood (MLR) estimation with full information maximum likelihood (FIML) for missing data. For potential model modification, we prioritized factor loadings over modification indices and considered standardized loadings below .40 as low, and thus as potential candidates to be dropped. Both factor loadings and modification indices were averaged across all groups. When modifying the model, we asked ACAMIA to either remove indicators with weak loadings or to introduce theoretically justified residual covariances within, but not between, latent dimensions. We specified ACAMIA to retain a minimum of three items per latent factor to ensure models remained identified. For measurement invariance testing, we applied Chen's (2007) recommendations for fit index change thresholds: $\Delta CFI > .01$, $\Delta RMSEA < .015$, and $\Delta SRMR < .03$ for metric, scalar, and strict measurement invariance levels. This allowed ACAMIA to systematically assess whether configural, metric, scalar, and strict factorial

² Participants also mentioned $n = 260$ professional groups, 21.7 %, as per the prompt; $n = 166$ social groups like "students", "youth", or "adults", 13.85 %, as per the prompt; and $n = 15$ other responses, 1.25 %, which we excluded from analysis.

Table 1
Distribution of immigrant groups in the pilot study (N = 401).

Immigrant ethnic groups	n	%
Uzbek	159	39.7
Russian	144	35.9
Qandas	108	26.9
Chinese	75	18.7
Hindus	58	14.5
Turks	42	10.5
Tajiks	41	10.2
Kyrgyz	39	9.7
Ukrainians	12	3.0
Afghans	6	1.5
Pakistanis	5	1.2

invariance held across the groups, producing a final model that balanced optimal fit and parsimony. The full analytic procedure and iteration history were automatically documented by ACAMIA (see Suppl. materials 1), ensuring transparency and reproducibility. An overview over the fit indices of the baseline confirmatory factor analysis model for each group separately is provided in OSM-3 on the OSF project page.

Results indicated that a partial scalar measurement invariant model across all groups could be identified allowing for valid comparisons of latent means: Warmth, measured by four observed indicators (Good-natured, Likeable, Trustworthy, and Well-intentioned), and Competence, measured by five observed indicators (Capable, Competent, Efficient, Influential, and Persistent).

These results provide empirical support for the factor structure and comparability of the SCM dimensions in the Kazakhstani context and justify their use in subsequent analyses.

To examine cross-group differences in perceived warmth and competence ([Hypothesis 1](#)), we conducted a fixed-alignment analysis ([Asparouhov & Muthén, 2014](#)) using businessmen as the reference group (i.e., their latent mean was fixed to 0) allowing for rankings of latent means along SCM dimensions across immigrant groups ([Fig. 1](#)). Unlike traditional strict measurement invariance approaches, which require full or partial invariance across all parameters (i.e., factor loadings, intercepts, and residuals), the alignment method allows for small, non-systematic deviations in parameters across groups. This flexibility is particularly advantageous in studies involving a large number of groups like ours ([Asparouhov & Muthén, 2014](#)).

The model achieved approximate scalar measurement invariance, ensuring comparability of latent mean values. In terms of warmth, the group perceived most positively was the high-warmth societal reference group elderly ([Table 2](#)). They were rated significantly warmer than all other groups. Businessmen – a low-warmth reference group – Russians and Qandas followed. Uzbeks, Turks, Chinese, Kyrgyz, Ukrainians, Turkmen, Tajiks, Hindus, Pakistanis, and Afghans scored significantly lower on warmth than the reference group businessmen. All groups were rated significantly warmer than homeless – a low-warmth group – with the exception of Afghans and Pakistanis.

For competence, businessmen, a high-competence group, ranked highest, significantly exceeding all other groups ([Table 3](#)). This was followed by Russians, and Chinese and Qandas (both -0.590), whereas only Russians were perceived as significantly more competent than the elderly among all groups, with elderly being a low-competence group. Ukrainians, Kyrgyz, Tajiks, Hindus, Turkmen, Afghans and Pakistanis were all perceived significantly lower in competence than the elderly. All groups were perceived

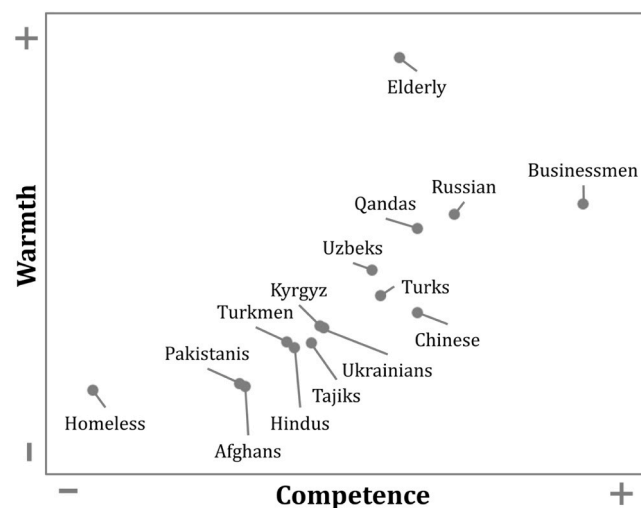


Fig. 1. Cross-group differences of immigrants in perceived warmth and competence in Kazakhstan.

Table 2

Ranking, factor means, and significant mean differences between immigrant and societal reference groups in terms of warmth.

Ranking	Group #	Group label	Mean	Groups With Significantly Smaller Factor Mean
1	1	Elderly	0.701	2, 5, 6, 4, 9, 7, 11, 15, 12, 10, 8, 14, 13, 3
2	2	Businessmen	0.000	4, 9, 7, 11, 15, 12, 10, 8, 14, 13, 3
3	5	Russian	−0.047	4, 9, 7, 11, 15, 12, 10, 8, 14, 13, 3
4	6	Qandas	−0.118	4, 9, 7, 11, 15, 12, 10, 8, 14, 13, 3
5	4	Uzbeks	−0.316	7, 11, 15, 12, 10, 8, 14, 13, 3
6	9	Turks	−0.436	11, 15, 12, 10, 8, 14, 13, 3
7	7	Chinese	−0.519	8, 14, 13, 3
8	11	Kyrgyz	−0.580	14, 13, 3
9	15	Ukrainians	−0.592	14, 13, 3
10	12	Turkmen	−0.659	14, 13, 3
11	10	Tajiks	−0.661	14, 13, 3
12	8	Hindus	−0.685	14, 13, 3
13	14	Pakistanis	−0.858	
14	13	Afghans	−0.869	
15	3	Homeless	−0.888	

Note: The mean of businessmen was fixed to 0 in the fixed-alignment procedure.

Table 3

Ranking, factor means, and significant mean differences between immigrants and societal reference groups in terms of competence.

Ranking	Group #	Group label	Mean	Groups With Significantly Smaller Factor Mean
1	2	Businessmen	0.000	5, 7, 6, 1, 9, 4, 15, 11, 10, 8, 12, 13, 14, 3
2	5	Russian	−0.458	6, 1, 9, 4, 15, 11, 10, 8, 12, 13, 14, 3
3	7	Chinese	−0.590	9, 4, 15, 11, 10, 8, 12, 13, 14, 3
4	6	Qandas	−0.590	9, 4, 15, 11, 10, 8, 12, 13, 14, 3
5	1	Elderly	−0.657	15, 11, 10, 8, 12, 13, 14, 3
6	9	Turks	−0.724	15, 11, 10, 8, 12, 13, 14, 3
7	4	Uzbeks	−0.755	15, 11, 10, 8, 12, 13, 14, 3
8	15	Ukrainians	−0.927	13, 14, 3
9	11	Kyrgyz	−0.941	13, 14, 3
10	10	Tajiks	−0.971	13, 14, 3
11	8	Hindus	−1.031	13, 14, 3
12	12	Turkmen	−1.057	13, 14, 3
13	13	Afghans	−1.206	3
14	14	Pakistanis	−1.227	3
15	3	Homeless	−1.752	

Note: The mean of businessmen was fixed to 0 in the fixed-alignment procedure.

Table 4

Effects of ethnicity and language on warmth and competence.

Immigrant group	Ethnicity effects on		Language effects on	
	Warmth	Competence	Warmth	Competence
Uzbeks	.025	−.050	.013	.080
Russians	.100	−.026	.176**	.244***
Qandas	−.062	−.079	.089	.158**
Chinese	.001	−.078	.104	.237***
Fixed effects approach				
M r_z	.016	−.058	.096	.183
M r	.016	−.058	.096	.181
Combined Z	.716	−2.605	4.271	8.039
	$p = .474$	$p = .009$	$p < .001$	$p < .001$
Heterogeneity test (Chi-square)	6.717	.965	6.811	9.406
	$p = .081$	$p = .810$	$p = .078$	$p = .024$
Random effects approach				
One-sample t-test	.478	−4.595	2.858	4.663
	$p = .332$	$p = .010$	$p = .032$	$p = .009$

Note: Effects are standardized.

* $p < .05$,

** $p < .01$,

*** $p < .001$.

significantly more competent than homeless people, a low-competence group.

Together, these findings suggest, as expected, significant differences in the social perception of immigrant groups in Kazakhstan along warmth and competence dimensions.

What is the role of ethnic and language-based identity in shaping social perception towards immigrants in Kazakhstan?

To assess the role of respondents' ethnic and language-based social identity on stereotype content, we conducted a series of path analyses using structural equation modeling for four frequently mentioned groups in the pilot study for which we included additional measures in our main survey – Uzbeks, Russians, Qandas, and Chinese. Specifically, we tested whether the social identity of individuals based on ethnicity (Kazakh = 0, Russian = 1) and the language they spoke (Kazakh = 0, Russian = 1) affected the perceptions of warmth and competence. To synthesize estimates across these four groups, we conducted a meta-analysis of standardized effects using the approach by Goh et al. (2016). Results are summarized in Table 4.

Language-based identity was a stronger and more consistent predictor of stereotype content ratings than ethnic background across the four immigrant groups (Uzbeks, Russians, Qandas, and Chinese). Both under the fixed-effects and random-effects approach, language significantly predicted both warmth and competence, in the way that Russian speakers perceived immigrant groups as significantly warmer and more competent than Kazakh speakers, with significant heterogeneity in the size of competence effects depending on the group investigated. Ethnicity, however, was only significantly associated with competence, but not warmth, using either approach, suggesting that ethnic Russians perceived the competence of immigrant groups as significantly lower than Kazakh. Interestingly, none of the ethnicity effects were significant predictors of competence in the group-specific models, though ethnicity emerged as a significant predictor after pooling of effects in the meta-analysis. Taken together, these findings suggest that language-based identity may play a vital role in shaping perceptions of immigrant groups, whereas ethnic identity may effect competence perceptions as well.

Do threat and benefit perceptions mediate the effect of ethnic and language-based identity on social perception towards immigrants in Kazakhstan?

To validate the latent structure of the multi-item threats and benefits measures, we assessed scale properties again using the ACAMIA (Schemmerling et al., in press), using the same model fit and scale improvement criteria as for the stereotype content scales. The analysis was performed across the four most frequently identified ethnic groups: Uzbeks, Russians, Qandas, and Chinese. Syntaxes

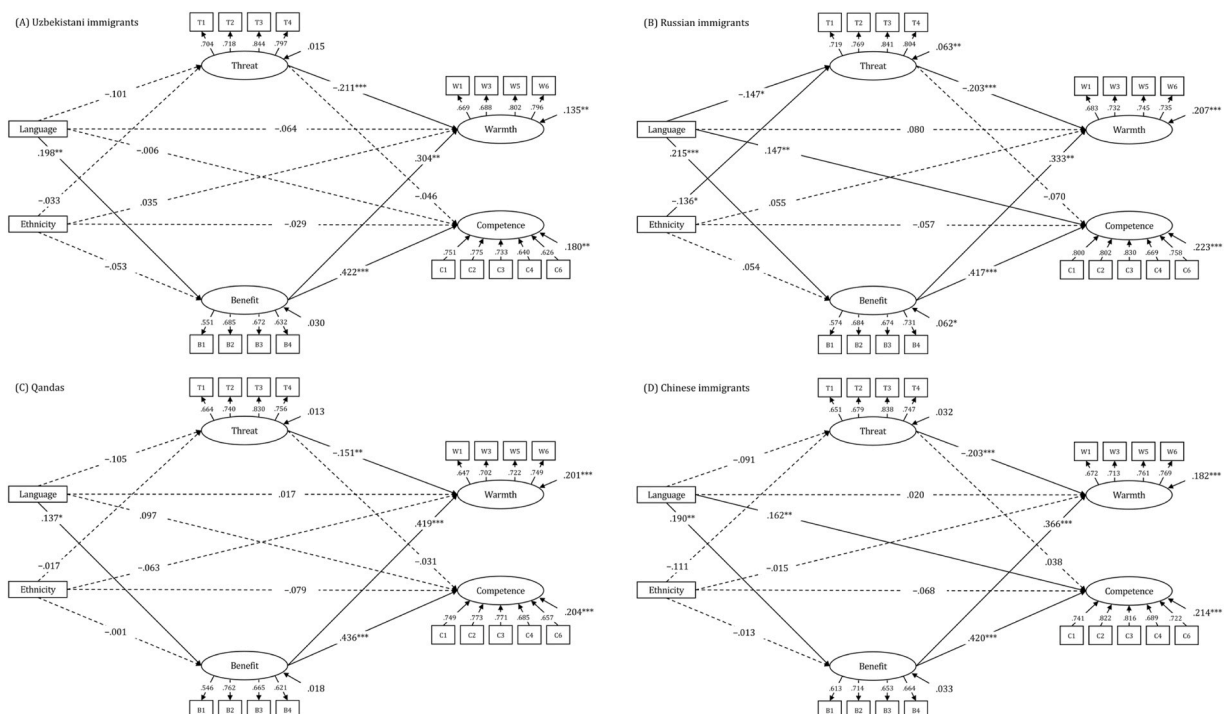


Fig. 2. Structural equation models illustrating the mediating effects of perceived threats and benefits on the relationship between ethnic and language identity and stereotype content (warmth and competence) across four immigrant groups in Kazakhstan. Panels depict standardized path coefficients for: (A) Uzbek, (B) Russian, (C) Qandas, and (D) Chinese immigrants. Solid lines represent statistically significant paths, while dashed lines indicate nonsignificant paths. For standardized indirect effects, see main text and Suppl. materials 3. * $p < .05$, ** $p < .01$, *** $p < .001$.

and outputs can be found in OSM-4 on the OSF project page. To assess dimensionality of the scale, we compared a unidimensional model (in which all items loaded on a single general perception factor) with a two-factor model specifying two latent dimensions: Threat (measured by physical, economic, social, and progress threats) and Benefit (measured by perceived economic, cultural, humanitarian, and physical benefits). Model fit indices supported the superiority of the two-factor solution, which was retained for further analyses. This confirmed that the scale distinguished between perceived threats and benefits associated with immigrant groups. Moreover, results suggested no adjustments to the scale were needed to achieve a scalar measurement invariant model, assuring comparability of the scale across groups.

To investigate the underlying mechanisms through which respondents' social identity influences stereotype content, we conducted mediation analyses in a Structural Equation Modelling framework for the four immigrant groups Uzbeks, Russians, Qandas, and Chinese. Specifically, we examined the indirect effects of language and ethnicity on warmth and competence, mediated by perceived threats and benefits (Fig. 2, Suppl. materials 3). Syntaxes and outputs can be found in OSM-5 on the OSF project page. To synthesize estimates across these four groups, we conducted a meta-analysis of standardized indirect effects using the approach by Goh et al. (2016). Results are summarized in Table 5.

The meta-analytic findings using both the fixed effect and random effect approach revealed that language-based indirect effects via benefits were significant overall across groups. These results indicate that Russian-speaking respondents are more likely to associate immigrants with more societal benefits, which in turn enhances perceived warmth and competence. Conversely, ethnicity-based indirect effects, whether via threats or benefits, were weak and statistically non-significant across all pathways regardless of the approach, suggesting that ethnic identity of the respondent had minimal influence on stereotype content evaluations when considered indirectly through perceived threat or benefit. Tests of heterogeneity revealed no significant between-group variability in effect sizes (all χ^2 -tests $p > 0.05$), supporting the consistency of the observed patterns across the four immigrant groups.

Taken together, these findings show the central role of linguistic identity, rather than ethnicity, in shaping positive immigrant perceptions, and highlight perceived societal benefits as a key mediating mechanism in the formation of intergroup warmth and competence judgments in Kazakhstan.

Discussion

The present study offers a pioneering investigation of the social perception of immigrant groups and its antecedents in Kazakhstan, a multi-ethnic and multi-lingual central Asian country with a rich history of migration. As a country that has been under Soviet influence for decades, there are many immigrant groups present in Kazakhstan that have been historically been understudied. Our research provided novel insights regarding the perception of typically overlooked ethnic groups in Kazakhstani society; particularly, which of groups are saliently perceived as immigrant groups in Kazakhstani society, to what extent social perceptions of these groups may align or differ, and, lastly, given the multi-ethnic and multi-lingual make-up of society, to what extent social perception of immigrants is shaped by the perceiver's own ethnic or language-based identity, as well as potential underlying mechanisms.

Our findings demonstrate that of a multitude of ethnic groups that are present in Kazakhstani society, there are a handful of groups who were most consistently identified as immigrants by the local population; particularly Uzbeks (with Uzbekistan directly neighboring Kazakhstan in the south), Russians (a country of historically high immigration to Kazakhstan, also recently in response to the armed conflict between Russia and Ukraine), and Qandas; followed by countries that are mostly geographically close to Kazakhstan.

Table 5

Meta-analysis of indirect effects of ethnicity and language on warmth and competence via perceived threats and benefits across immigrant groups.

Immigrants group	Ethnicity effects on				Language effects on			
	Warmth		Competence		Warmth		Competence	
	Ind. via threat	Ind. via benefits	Ind. via threat	Ind. via benefits	Ind. via threat	Ind. via benefits	Ind. via threat	Ind. via benefits
Uzbeks	.007	-.016	.002	-.023	.023	.06*	.005	.084**
Russians	.028*	.018	.010	.022	.030*	.072**	.010	.090**
Qandas	.003	< .001	.001	.000	.016	.057*	.003	.060*
Chinese	.023	-.005	-.004	-.005	.018	.070**	-.003	.080**
Fixed effects approach								
M _{Tz}	.015	-.001	.002	-.001	.022	.065	.004	.079
M _r	.015	-.001	.002	-.001	.022	.065	.004	.079
Combined Z	.682	-.034	.101	-.067	.973	2.896	.168	3.511
	$p = .495$	$p = .973$	$p = .920$	$p = .946$	$p = .331$	$p = .004$	$p = .867$	$p < .001$
Heterogeneity test (Chi-square)	.219	.300	.050	.512	.058	.082	.043	.255
	$p = .974$	$p = .960$	$p = .997$	$p = .916$	$p = .996$	$p = .994$	$p = .998$	$p = .968$
Random effects approach								
One-sample t-test	2.516	-.106	.777	-.162	6.973	17.582	1.395	12.077
	$p = .043$	$p = .461$	$p = .247$	$p = .441$	$p = .003$	$p < .001$	$p = .129$	$p < .001$

Note: Ind. = indirectly. Effects are standardized.

* $p < .05$,

** $p < .01$,

*** $p < .001$.

These findings set our study apart from other research using a similar paradigm to ours which were conducted in European countries, such as Germany (Froehlich & Schulte, 2019), as well as studies conducted in the US (Lee & Fiske, 2006), where participants also suggested groups originating from geographically distant countries, including on different continents. One reason may be that these nominations loosely reflect actual immigration patterns, as our analysis of Kazakhstan's history as a transit country suggests. Interestingly, many groups that were salient in Kazakhstan were also salient groups in Germany (Froehlich & Schulte, 2019), including Chinese, Russians, Pakistanis, and Afghans, whereas some were also salient in the US (Chinese and Russian; Lee & Fiske, 2006). This is the first empirical evidence of this kind in this unique and under-researched context, which allowed us to advance the investigation of the societal dynamics in this country further by shedding light on the social perception of these social groups along basic stereotype content dimensions.

As hypothesized, warmth and competence perceptions varied significantly across these groups, suggesting highly differentiated social attitudes that may influence integration outcomes (e.g., Kotzur et al., 2018). To anchor our results, we followed previous research (e.g., Lee & Fiske, 2006) and compared the perception of immigrant group against the perception of societal comparisons groups that are cross-culturally known to be perceived high in warmth and low in competence (elderly), low in warmth and competence (homeless), and low in competence and high in warmth (businessmen; Durante et al., 2017). Russians were among the most positively perceived groups, who scored relatively high on warmth (not significantly different from businessmen) and competence (just short of businessmen in terms of competence), which may be explained by the many historic ties to Russia, where forced Russification and other current and past policies and actions by Russia and its predecessor seem to not be factored in in a negative way. Although these results diverge from results from Germany and the US, where Russians receive mid-range scores on both warmth and competence (Froehlich & Schulte, 2019; Lee & Fiske, 2006), these are positive news for recent immigrants from Russia evading the armed conflict with Ukraine (as well as for those who immigrated to Kazakhstan earlier). This is, because our results suggest that Russians are likely provided with one of the most welcoming context of reception among all immigrant groups in Kazakhstan. These findings stand in contrast to Ukrainians, as the opposing conflict party in the war, who received significantly lower warmth and competence scores, similar to Kyrgyz, Turkmen, Tajiks, and Hindus, suggesting a less welcoming context of reception for this and just-mentioned groups. What is more, Qandas, who have received ambivalent treatment featuring welcoming and rejection in the past, scored similarly to Russians on warmth, and similarly to the elderly on competence. Finally, it is noteworthy that Pakistani and Afghan immigrants were among the groups receiving the lowest warmth and competence scores, ranking just above homeless on competence, and similarly to homeless on warmth. These findings are in line with evidence from Germany, where Afghan and Pakistani immigrants were among the least welcomed groups as well (Froehlich & Schulte, 2019). To us, this suggests that further work is needed especially for these immigrant groups to facilitate welcoming context of receptions for them in Kazakhstan and beyond.

In addition to the above explorations of differences in the social perception, we tested our hypothesis that ethnic and linguistic identity of receiving society members influence warmth and competence perceptions towards immigrant groups in a multi-ethnic and multi-lingual country like Kazakhstan. Indeed, language-based identities were found to shape both warmth and competence perceptions, with Russian-speakers evaluating immigrant groups more positively than Kazakh-speakers. Additionally, ethnic identities shaped competence perceptions only, but only once effects were pooled meta-analytically. These results reinforce the idea that who we are and identify with colors how we perceive and evaluate others, and that language-based identities may even trump ethnic identities in multi-ethnic and multi-lingual contexts like Kazakhstan. Overall, these patterns emphasize the complex dynamics ethnicity and language contribute to in shaping intergroup attitudes within multi-layered societies like Kazakhstan.

Finally, we utilized the threat-benefit model (Tartakovsky & Walsh, 2016) to advance our understanding of the psychological underpinnings of these differences across contextually-relevant identity lines. Internal meta-analyses suggested that the reason why Russian-speakers held immigrant groups in higher regard on stereotype content dimensions was due to higher benefit perceptions, rather than lower threat perceptions. By uncovering this, our research goes beyond previous social perception research (e.g., Sherif & Sherif, 1953; Riek et al., 2006), including research conducted using the SCM (e.g., Kervyn et al., 2015), which classically focused on threat perceptions as a factor predicting evaluations of social groups (e.g., Froehlich & Schulte, 2019). Indeed, what our results suggest is that, if threat levels are held (statistically) equal, higher societal benefits may be the factor driving more positive perceptions across group lines.

Despite the strengths of our work, which include the careful examination of scale properties, latent variable modelling, and quota-sampling procedures for the main study, there are many ways in which future research can build on ours. Our study design is cross-sectional, and as such, we rely on theory and previous research for the deduction of causal relationships between the constructs we investigated. Relatedly, we cannot rule out that further variables may explain some of the associations we have unearthed in the present study. For instance, we cannot rule out that social perceptions guide whether people learn Russian or Kazakh, or whether there are systematic differences between Russian and Kazakh speakers on additional non-measured variables we could not control for in this research. Future studies could include such controls, and follow our findings up with experiments and longitudinal designs to strengthen causal inferences, although we acknowledge that constructs we focused on, such as primary language or ethnicity, cannot be easily experimentally assigned by researchers, and tend to remain stable over time. Additionally, we focused on people who identified as either Kazakh or Russian, and spoke either Kazakh or Russian. Future research could broaden the scope by investigating the role of multilingualism, mixed ethnicities and heritages, and non-Kazakh/Russian minorities. Relatedly, although we used an established method for group selection (e.g., Fiske et al., 2002; Lee & Fiske, 2006), the approach may have advantaged visible and salient groups. Indeed, it is important to remember that language, ethnicity, and migration are politicized topics in a country that is grappling with post-Soviet nation-building. There are many more ethnic and immigrant groups that deserve to be studied in Kazakhstan and beyond that we could not identify with our method or focus on in our study, as they might be tabooed, which would be a worthwhile for future research to pursue. Finally, it may be worthwhile to consider future studies who delve into additional nuances

regarding the social perception of some of the groups we have included in our study. For instance, it may be of value to disentangle further subgroup perceptions as a function of generation: Whereas sizable numbers of Russians have only recently immigrated, among other things after the outbreak of the Russian-Ukrainian war, some ethnic Russians have lived in Kazakhstan for generations. Similarly, Qandas, that is, ethnic Kazakh repatriates, are treated as Kazakh citizens by law, yet, as our study suggests, perceived as immigrants. Shedding further light on these particularities could prove useful in providing more welcoming contexts of reception for these and other groups, with implications for theory, policy and practice in Kazakhstan and beyond.

Conclusion

In the present research, we have provided novel insights regarding the perception of typically overlooked ethnic groups in Kazakhstani society, a notoriously under-researched context. We found that mostly geographically close immigrant groups were saliently perceived as immigrant groups in Kazakhstan, and that significant differences prevailed in the social perceptions of these groups, with some findings unique to Kazakhstan, others shared with studies conducted in other country contexts like Germany or the US. Finally, we found that Russian speakers' social perceptions of immigrants were more positive than from Kazakh speakers', explained by higher benefit perceptions, rather than lower threat perceptions. As such, we contributed a myriad of novel insights to the literature on social perception of immigrants with practical implications, which we hope will provide a fertile ground for future investigations in both routinely researched and under-researched areas.

CRedit authorship contribution statement

Adil Samekin: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Aidos Bolatov:** Writing – review & editing, Writing – original draft, Visualization, Validation, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Patrick Kotzur:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

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Conflict of Interest

We have no known conflict of interest to disclose.

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Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.ijintrel.2025.102274](https://doi.org/10.1016/j.ijintrel.2025.102274).

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