Beyond Language Proficiency: Understanding the Role of National Identification in Shaping Attitudes toward Immigrants

Akira IGARASHI, Charles CRABTREE,

and Yoshikuni ONO

Beyond Language Proficiency: Understanding the Role of National Identification in Shaping Attitudes toward Immigrants

Akira IGARASHI
Associate Professor
Faculty of Human Sciences
Osaka University
igarashi.a.hus@osaka-u.ac.jp

Charles CRABTREE
Assistant Professor
Department of Government
Dartmouth College
crabtree@dartmouth.edu

Yoshikuni ONO
Professor
Faculty of Political Science and Economics
Waseda University
onoy@waseda.jp

Abstract
Many studies argue that intergroup relations between immigrants and natives are influenced by perceptions of cultural distance. They claim that natives tend to favor immigrants who are fluent in the host society's language, which is operationalized by researchers as a sign of cultural assimilation and identification with the host society. This work assumes that language proficiency is a reasonable manifest indicator of the latent trait of national identification, even though these two concepts, although potentially related, are theoretically distinct. Our study aims to disentangle the relationship between immigrants' language proficiency and their national identification in the context of the United States. We conducted pre-registered vignette and conjoint experiments to achieve this goal with national samples of 3,325 and 4,201, respectively. The results from the vignette experiment indicate that natives exhibit a preference for immigrants who not only possess fluent English skills but also independently strongly identify with the United States. Notably, the effect size for national identification is significantly larger than for language proficiency. These findings are further supported by the results from the conjoint experiment, which incorporates a broader range of immigrant attributes. Our results highlight the interrelated yet distinct nature of national identification and language proficiency. The broader takeaway is that relying solely on language proficiency as a measure of national identification can yield biased results and lead to misleading conclusions. Our findings have implications for the literatures on immigration and for experiments that use language proficiency as an experimental treatment.

Keywords
immigrants; national identification; language proficiency; survey experiments

Introduction

"This is America, speak English," shouted two men as they attacked a mother and her daughter for speaking Spanish while walking in East Boston (Haynes, 2020). According to the family, this was not the first time that they'd heard comments like this, and similar incidents have been (unfortunately) documented throughout the country (e.g., Karimi & Levenson, 2018; Mejia, 2018; Moore, et al., 2021). These anecdotes of language harassment are supported by experimental studies that demonstrate a widespread preference among U.S. citizens for immigrants who possess high levels of English proficiency (e.g., Hainmueller & Hopkins, 2015).

Why do citizens prefer immigrants who can speak English? One possible answer to this question is that immigrants with higher levels of language proficiency are perceived to align themselves more closely with the host society (Hainmueller & Hopkins, 2014). Native-born individuals are more accepting of immigrants when they believe these newcomers will adhere to societal norms and demonstrate loyalty to the nation. This perspective aligns with straight-line assimilation theory (Gordon, 1964), which posits that immigrants assimilate into their host society by first mastering the language, subsequently fostering an exclusive national identity. Citizens, in turn, recognize this assimilation and cultivate positive attitudes toward immigrants, viewing them as members of their ingroup (Alba & Nee, 2003; Schachter, 2016).

Both theoretically and empirically, however, an immigrant's fluency in a host country's language may not necessarily reflect their sense of attachment to that nation. An immigrant might be fluent in the language yet lack a genuine bond with the country, or even feel alienated or rebellious. [1] Conversely, an immigrant might struggle with the language while still maintaining a strong sense of attachment to the host country. Thus, the relationship between

---

[1] For instance, despite sharing the English language, half of Canadian and British individuals hold negative attitudes toward the U.S. (Wike, Poushter, & Schumacher, 2020).

identification, language proficiency, and citizens' perceptions of immigrants remains ambiguous, leaving several pivotal questions unanswered. For instance, does language proficiency serve as a proxy for national identification, or are these two concepts distinct? Further, is national identification tied to citizens' perceptions of immigrants regardless of their language skills?

To address these questions, we conducted two pre-registered experiments, a vignette experiment and a conjoint experiment with national samples of 3,325 and 4,201 Americans, respectively. Our findings show that U.S. citizens prefer immigrants who directly identify with the U.S. and that these effects are twice as large as those of language proficiency. Respondents exhibit a much stronger preference for immigrants who identify with the U.S., even if they possess low English proficiency, compared to those proficient in English but lacking U.S. identification. Furthermore, our conjoint experiment reveals that including an attribute related to identification with the U.S. does not considerably diminish the effects of English proficiency.

These results indicate that while language is indeed a crucial factor in shaping intergroup attitudes, it is not a good proxy measure for national identification. Instead, these two factors independently affect attitudes toward immigrants. Our research cautions that earlier work on intergroup attitudes, encompassing both classical assimilation theory and contemporary experimental studies, might erroneously attribute the effects of language proficiency to national identification. This is because, as our results show, citizens may not infer an immigrant's level of attachment to the U.S. based solely on their language skills. They appear to discern and value both factors distinctly, with national identification holding particular weight in shaping intergroup relations.

Theory

Cultural adaptation and intergroup relations

Scholarly work on the relationship between immigrants' cultural adaptation and the formation of natives' attitudes can be traced back to classical assimilation theory. Gordon (1964) argued that successful immigrants undergo a process of assimilation involving cultural, structural, marital, and identificational pathways. According to his model, immigrants initially learn the language and cultural norms of the host society. Through social integration via participation and intermarriage (i.e., structural and marital assimilation), immigrants eventually develop an exclusive identification with the host society. In response, natives perceive these immigrants as in-group members, leading to a reduction in prejudice and discrimination against them (i.e., attitudinal and discriminatory assimilation).

Building upon classical assimilation theory, Alba and Nee (2003) reconceptualized it as a boundary-making process. As immigrants assimilate, they begin to self-identify as ethnoracial majority members (Wimmer, 2008; Kruse & Kroneberg, 2019). In reacting to this boundary-crossing, natives readjust intergroup boundaries so that "populations once situated on one side are now included on the other: former outsiders are thereby transformed into insiders" (Alba & Nee, 2003: 61). A notable example of this boundary-shifting in the U.S. involves European immigrants (Irish, Italian, and Jewish people) who were initially categorized as non-White but later recategorized as White as they assimilated into the society and intentionally differentiated themselves from Black people (López, 1997).[2] Both classical assimilation theory and the boundary-making process predict that natives perceive immigrants who culturally integrate into the host society as members of the society and develop positive attitudes toward them.

---

[2] Both theories expect immigrants to abandon their own cultures. Contrary, Berry's acculturation theory and provided the typology of immigrants' cultural strategy in countries of destination. Berry (1997) proposed acculturation theory, in which immigrants are presented with choices whether they identify to the culture of destination country and maintain their original culture. Immigrants can have both their own culture and host country culture simultaneously in a compatible way.

There are three main reasons why natives may prefer immigrants who culturally adapt to the host society. First, the cultural threat thesis, which stems from group threat theory, suggests that citizens who perceive their valuable resources as being threatened by immigrants develop negative attitudes toward them (e.g., Blumer, 1956). Among the valuable resources possessed by citizens, economic resources have received significant attention. Studies have shown that economic disadvantages and perceptions of immigrants exploiting welfare systems contribute to negative attitudes toward immigrants (Helbling & Kriesi, 2014). Additionally, high-skilled immigrants who contribute substantially to the host society's economy are often preferred (e.g., Hainmueller & Hiscox, 2010). However, recent research indicates that perceptions of cultural threats play a more influential role in determining intergroup relations, despite what the economic threat thesis might suggest (Grigoryan, et al., 2022; Lucassen & Lubbers, 2012; Malhotraet al., 2013; Sides & Citrin, 2007; Valentino, et al., 2019). Grigoryan and colleagues (2022) conducted experiments in four countries, demonstrating that the effects of cultural cues are more influential than economic cues in shaping attitudes toward immigrants. When immigrants' culture is perceived as incompatible, citizens anticipate that the immigrants' culture will endanger citizens' own culture, leading to exclusive attitudes. For instance, in the U.S., cultural threats have focused on the work-ethics of immigrants (as well as African Americans), with arguments that their "laziness" undermines the American economy and the work ethics of natives (Rabinowitz, et al., 2009). In European societies, Muslims have become a primary cultural threat due to the belief that their so-called "illiberal" culture is incompatible with European "liberal" cultures (e.g., Sniderman & Hagendoorn, 2007).

Second, immigrants who successfully adapt to the culture of the destination country are perceived to share a common in-group identity (Gaertner, et al., 1993). This process involves recategorizing group boundaries between citizens and out-groups, where the out-group members are perceived to possess a unified, superordinate group identity. This sense of "we-

ness" fosters in-group bias and improves citizens' attitudes toward formerly perceived out-group members. The results from multiple experimental studies have supported these arguments (Charnysh, et al., 2015; Levendusky, 2018; Transue, 2007; Wright & Citrin, 2011). For example, Transue (2007) conducted survey experiments that show presenting superordinate U.S. group identity to White Americans increased support for redistributive policies benefiting African American citizens. Similarly, Charnysh et al. (2015) conducted survey experiments in India, demonstrating that the dominant ethnic group (Hindus), primed with a common Indian identity, were more likely to donate to ethnic minority groups (Muslims). The concept of common in-group identity aligns with the notion of liberal nationalism, wherein a shared sense of belonging to a community enhances social solidarity and stability (Miller, 1995; Tamir, 1993). In response to immigrants' cultural adaption to the host society, natives perceive them as integral community members and treat them as part of the same group (Banting & Kymlicka, 2015). Kymlicka (2015) proposed that a shared sense of belonging can help address the inverse relationship between an increase in the immigrant population's size and support for welfare redistribution (Alesina & Glaeser, 2004). Notably, these studies primed participants with a sense of "we-ness" through common identity, without specifically addressing immigrants' identification and cultural adaption to the host society. However, when confronted with culturally assimilated immigrants, citizens may perceive a common identity and, as a result, develop positive attitudes.

Third, citizens exhibit greater willingness and see more opportunities for intergroup contact with migrants who have culturally adapted. The intergroup contact theory posits that contacts with out-group members can enhance attitudes toward the entire out-group (Allport, 1954). This theory has been robustly supported by evidence from field experiments (Scacco & Warren, 2018; van Laar, et al., 2005), longitudinal studies (Christ, et al., 2014; Khalil and Naumann, 2022), and meta-analyses (Pettigrew & Tropp, 2006; Paluck, et al., 2019). However,

if intergroup contact plays a significant role in fostering positive intergroup relations, it becomes essential to identify what factors make such contact feasible. Previous studies suggest that an immigrant's cultural adaptation to their host society facilitates both the willingness and the actual occurrence of intergroup contact. For example, immigrants with high language proficiency and cultural knowledge are more likely to engage in intergroup interactions, primarily due to their effective communication skills (Martinovic, et al., 2009, 2015; Vervoort, et al., 2011). Conversely, experimental studies have suggested that interacting with immigrants who lack proficiency in the host society's language can heighten perceptions of cultural threats, attributable to tangible barriers hindering intergroup contact (Newman, et al., 2012).

Cultural varieties

All three of these theories help explain the associations between immigrants' cultural adaptation (whether perceived or actual) and citizens' positive attitudes toward them. Citizens may perceive fewer cultural threats from culturally adapted immigrants, feel a sense of shared in-group identity with them, and be more open to intergroup interactions. We have summarized the theoretical mechanisms linking cultural adaptation and attitudes without delving into the specific contents of culture. However, the host society's culture encompasses multiple dimensions, including language and identification (Berry, 1997). While the three theories discussed above do not identify the precise aspects of culture that matter to natives, prior experimental studies have primarily focused on the effects of language acquisition, viewing language as an overarching factor bridging identification. For instance, Hainmueller and Hopkins (2014, 2015) emphasize the importance of culture, asserting that American citizens are concerned about immigrants eroding the American identity and favor those who assimilate into the cultural norms of the U.S. They bolster their claims with data showing that over 90% of American citizens view English proficiency as vital to American identity. Language and

identification are often closely intertwined, as evidenced by longitudinal studies that reveal increased proficiency in the host society's language often corresponds with a deeper sense of identification with that society (Hochman & Davidov, 2014; Schulz & Leszczensky, 2016). Through an immigrant's language proficiency, citizens may gauge their attachment and loyalty to the host society, boosting intergroup relations. In other words, an immigrant's identification with the host society is considered to elucidate the relationship between their language proficiency and natives' attitudes (Roblain, et al., 2016).

In line with that, Hainmueller and Hopkins (2015) demonstrated that American citizens hold favorable attitudes toward immigrants who are fluent in English. This observation is not limited to the U.S. context. For instance, experimental studies indicate that a higher proficiency in the host society's language is associated with attitudes toward refugees in Germany (Czymara & Schmidt-Catran, 2017) and perceptions regarding the deservingness of citizenship in the UK (Donnaloja, 2022).[3]

These results *assume* that language proficiency signals national identification[4], or in other words, language proficiency is a manifesto (observed measurement) of national identification, as the level of national identification is latent and unobservable from others. But the empirical literature leaves two crucial questions unanswered: Does the observed positive effect of language stem from the perceived identification of immigrants with the host society? Also, do citizens attribute a higher level of identification to immigrants who possess greater language proficiency? While language acquisition can serve as a signal of immigrants'

---

[3] Hopkins (2015) showed that compared to Latino immigrants who can perfectly speak English, citizens prefer those who speak accented English. His findings indicated that those who try to assimilate to the society while being consistent with stereotype is most favorably welcomed. However, his study is not necessarily supported by other study (Schmaus & Kristen, 2022).
[4] Similar issues are highlighted by Crabtree and colleagues (Crabtree, Gaddis, Holbein, & Larsen, 2022). They demonstrated that current correspondence audit studies often use applicants' names as proxies for race, even though these names might inadvertently imply other attributes, such as socioeconomic status.

identification with the host society, language proficiency can also signal other attributes, such as cultural alignment with the host society, educational attainment, productivity, and embedded networks. In addition, language proficiency itself indicates that immigrants are capable of communicating effectively in the host society and, therefore are willing to engage in direct intergroup contact.

Although language proficiency may lead to a higher level of national identification, these two concepts are theoretically distinct. There exist instances where immigrants might be fluent in the host society's language yet not resonate with its identity. This disparity is especially evident in instances of domestic terrorism. In such cases, second-generation immigrants, despite being native speakers born within the host society, might not feel a sense of belonging to the society and might participate in acts of terrorism (Piazza, 2011; Sánchez-Cuenca & De la Calle, 2009). However, to the best of our knowledge, no prior studies have directly examined the effects of immigrants' identification on citizens' perceptions or contrasted the effects of national identification and language proficiency.

If language proficiency and identification with the host society are distinct concepts, how do they individually influence citizens' attitudes? Among the three theoretical mechanisms—cultural threats, common in-group identity, and intergroup contact—the common in-group identity may be more closely associated with identification expectations. In contrast, willingness to engage in intergroup contact may relate more to language proficiency expectations.

Assessing which theoretical mechanisms are more effective in reducing negative sentiments and determining the relative influence of identification and language proficiency on improving attitudes presents a significant challenge. Nevertheless, a meta-analysis of intervention studies showed that social categorization (including common in-group identity) has a slightly higher effect size than interpersonal contact, with values of 0.366 and 0.278,

respectively (Paluck, et al, 2021). Indeed, highlighting immigrants' identification with the host society can reduce prejudice. For example, Wright and Citrin (2011) indirectly measured immigrants' identification with the U.S. using national flags. They found that Mexican protesters waving American flags received more positive evaluations (also see Hartman, Newman, & Scott Bell, 2014).

Banting and colleagues tested the liberal nationalism thesis, demonstrating that citizens are more likely to support the redistribution of welfare benefits and immigrants' claim-making when these immigrants appear loyal to the national community (Banting, et al., 2022; Harell, et al., 2022). In addition, several studies suggest that English proficiency alone does not significantly enhance intergroup attitudes or reduce discriminatory behavior (Abascal, Huang & Tran, 2021; Choi, Poertner & Sambanis, 2021). These findings may be attributed to the fact that acquiring English may reflect either a genuine identification or simply instrumental needs, as learning the host society's language is clearly linked to economic benefits (Chiswick & Miller, 1995; Auer, 2018). Thus, immigrants' language skills could be signaling both their identification and their intent for economic integration. Conversely, identification on its own undeniably implies symbolic integration into the host society.

To unbundle the possible effects of national identification from those of language proficiency, we conducted two pre-registered experiments. First, using a vignette experiment, we distinguished between language and national identification among immigrants. This approach enabled us to examine the independent effects of these two factors and their interactions with other covariates. If attitudes toward immigrants are solely driven by their level of national identification, and if this fully accounts for the effects of language proficiency, then introducing identification variables alongside measures of language proficiency should neutralize the influence of the latter.

Second, to understand the relationship between language proficiency and national identification, we randomly assigned respondents to one of two different sets of conjoint analysis: one including national identification attributes and the other excluding them. We then compared the effects of language proficiency across models both with and without identification variables to see the extent to which the influence of language proficiency was attenuated. Should the effects of language proficiency indeed be neutralized, it would suggest that language proficiency is either entirely or partially explained by national identification.

Study 1

Research Design

We administered a vignette experiment in March 2021. For this experiment, vote-eligible U.S. citizens were recruited as respondents via Lucid Theorem. Sampling quotas were employed to ensure a distribution that matched the population census in terms of gender, age, and region of residence. To screen out suspicious bots and inattentive participants, we incorporated an attention check question at the beginning of the survey. Our final sample comprises 3,325 complete, 'attentive' respondents. We provide descriptive statistics of the respondents in Table A1 in Appendix.

In our experiment, we presented respondents with a brief vignette describing a male immigrant who came to live in the U.S. We varied his English proficiency and identification with the U.S. as our focal treatment. In addition, the country of origin is varied to account for different cultural distance, and race and ethnicity (e.g., Newman & Malhotra, 2019), and we selected Brazil, China, and Germany as the countries of origin from each of the three continents (which are non-English speaking). While Mexican immigrants constitute the largest group of migrants in the U.S., we opted for Brazil as the country of origin in this case because Brazilians represent an emerging and less assimilated group of immigrants in the U.S. (Schut, 2021).

11

Experimental studies often use the name of hypothetical immigrants to imply ethnicity, but names can also convey attributes other than ethnicity, such as socioeconomic status (Crabtree, et al., 2022). To mitigate these potential confounding effects, we directly manipulated the country of origin and kept other attributes, including gender, age, generation, and place of residence, constant. The vignette text is as follows, with randomized elements in bold and parentheses.

Mr. X is a 35-year-old (**Brazilian/Chinese/German**) man living in California. He graduated from a university in (**Brazil/China/Germany**). After working in (**Brazil/China/Germany**) for several years, he started working in the U.S. as a financial analyst. He has been living in the U.S. since he was 30 years old (**and speaks English very fluently/but can hardly speak English**). Mr. X (**is attached to American society and feels that he is a part of it/has no attachment to American society and does not feel that he is a part of it**).

Respondents were posed two questions regarding their favorability toward Mr. X and their approval of granting him permanent residency. The questions were phrased as follows: "How favorable is your attitude toward Mr. X?" and "Mr. X is thinking of living in the U.S. permanently. If you were able to grant him a permanent residency, to what extent would you be favorable to granting him a permanent residency?" For each question, respondents had four response options on a scale ranging from 1 ("not favorable at all") to 4 ("very favorable").

Results

Main results

We analyzed how respondents' favorability toward Mr. X and their approval to grant him permanent residency varied depending on the manipulated variables in the vignette. Figures 1a and 1b present coefficient estimates (plotted points) along with their corresponding 95% confidence intervals (thin bars) obtained from each regression model, respectively. These models incorporate respondents' demographic variables (age, gender, race, educational attainment, and party identification) along with state-fixed effects to increase precision. The results remain consistent even when we exclude these control variables, as shown in Figure A1 in the Appendix, which is what we would expect since randomization was performed mechanically.

Figure 1a. Immigrant Attributes and Favorability (Vignette Experiment)
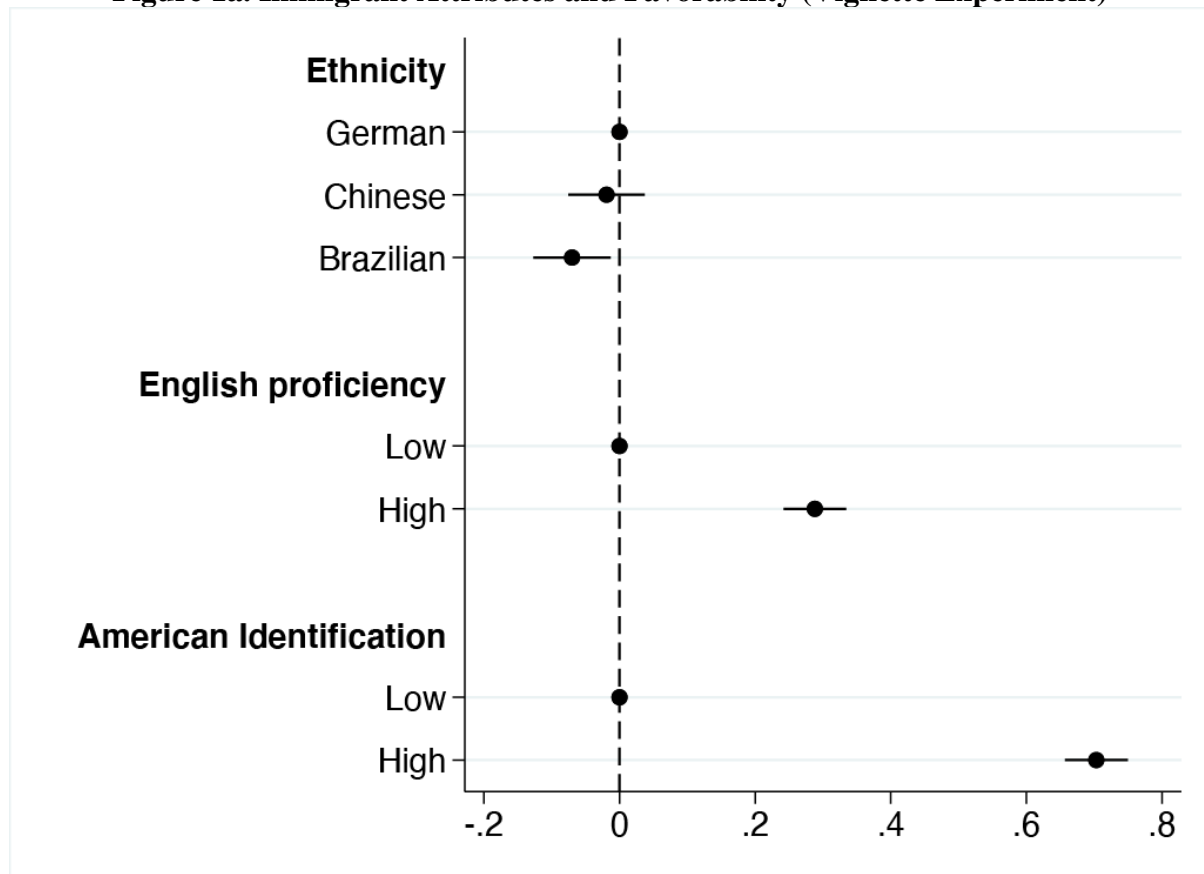
Notes: Linear regression model estimated with covariates for respondent age, gender, race, education, party, and region of residence. The plots display the estimated effects of the randomly assigned immigrant attributes on the favorability ratings by respondents. The horizontal bars represent the 95% confidence intervals for the point estimates.

Figure 1b. Immigrant Attributes and Permanent Residency Permission (Vignette Experiment)
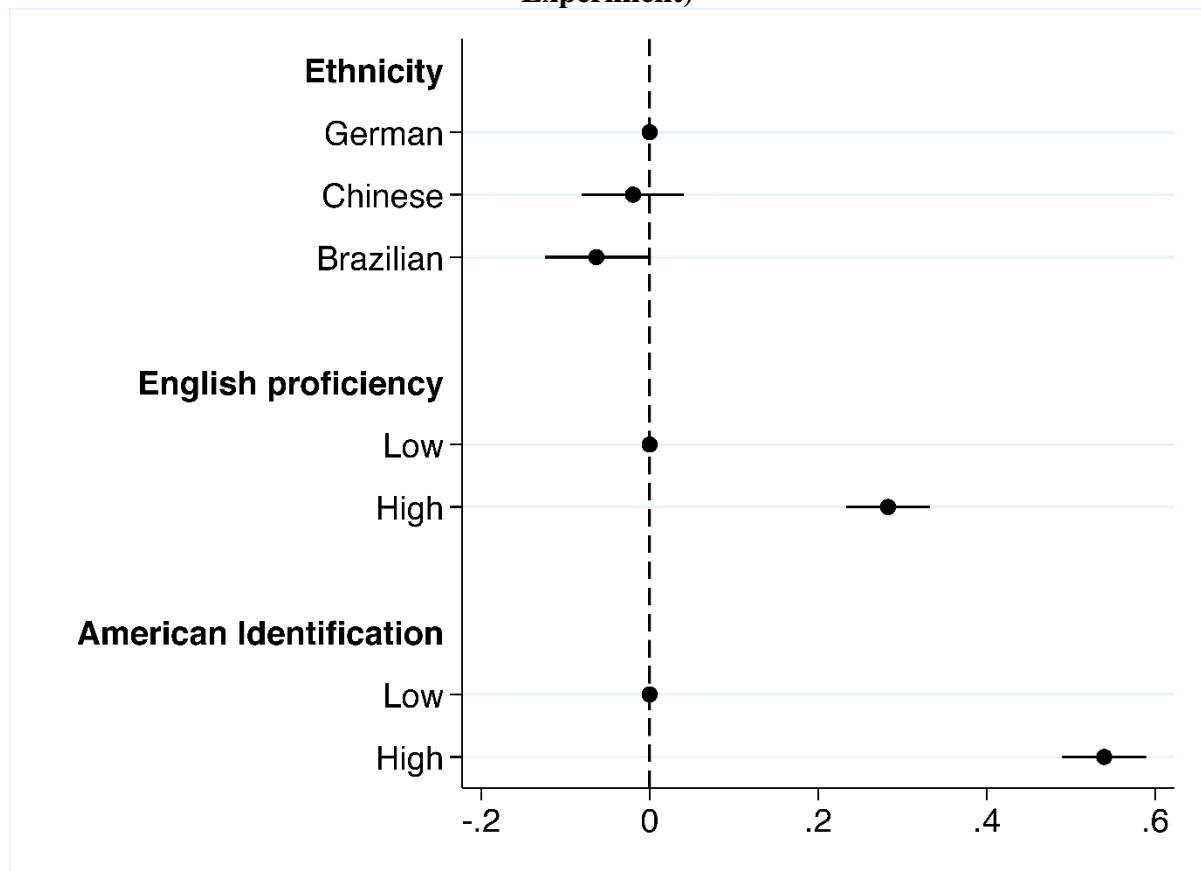
Notes: Linear regression model estimated with covariates for respondent age, gender, race, education, party, and region of residence. The plots display the estimated effects of the randomly assigned immigrant attributes on the favorability ratings by respondents. The horizontal bars represent the 95% confidence intervals for the point estimates.

The results are largely similar across the two outcome variables. These findings yield two critical insights. First, *both* language proficiency and national identification play a significant role in shaping attitudes toward immigrants. Immigrants who speak English fluently are viewed more favorably than those with lower proficiency. More importantly, regardless of language proficiency, immigrants who identify themselves with the U.S. receive a more positive evaluation than those who do not. These results challenge the assumptions of previous research (Hainmueller & Hopkins, 2015), which posited that language proficiency alone could serve as a proxy for an immigrant's level of identification with the U.S. If this assumption were correct, the effect of language proficiency would have been overshadowed by the explicit presentation of the level of American identification.

Second, and more notably, the effects of national identification are much more pronounced than those of language proficiency or country of origin. While the importance of language proficiency is undeniable, the substantial effect size of national identification suggests that this factor can move independently of language proficiency and should not be overlooked. The effects associated with the experimental variable, namely country of origin, are minimal and align with the findings of prior research (Hainmueller & Hopkins, 2015).

Interaction effects

We further examined whether there was an interaction between national identification and English proficiency to understand whether and how respondents' attitude change based on both immigrant national identification and English proficiency. Because the results are similar between favorable attitudes toward immigrants and tolerance for granting permanent residency, we only present those for the former. Figure 2 presents predicted values of favorable attitudes toward immigrants, varying by their national identification and English proficiency.

The figure clearly illustrates the interplay between these two variables. However, the effects of national identification are significantly more pronounced than those of English proficiency. Specifically, immigrants with national identification but lacking English proficiency are perceived much more favorably than immigrants without national identification but with English proficiency. In other words, *even if immigrants possess a high level of English proficiency*, they are not viewed favorably if they do not identify with the U.S. Conversely, immigrants who do not speak English but do identify with the U.S. are perceived more positively. These findings underscore that the key variable influencing attitudes is not language proficiency, but rather U.S. identification.

Figure 2. Differences in Favorability by English Proficiency and National Identity
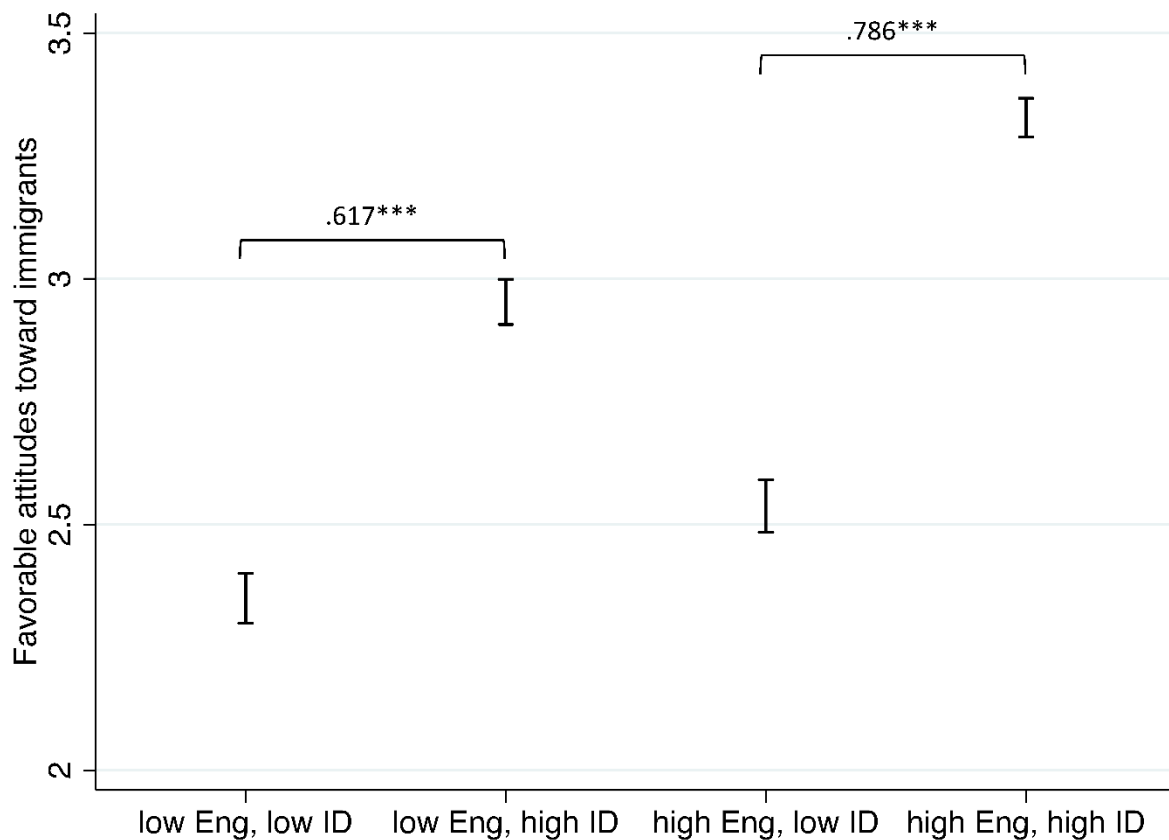
Notes: Linear regression model estimated with an interaction between English proficiency and national identification as well as controls for respondent age, gender, race, education, party, and region of residence. The vertical bars represent the 95% confidence intervals for the point estimates.

Testing the heterogeneity of responses

We found that both English proficiency and national identification significantly influence attitudes toward immigrants. Notably, national identification is much more influential than language proficiency. However, the effects of national identification may not be consistent across different groups. For some respondents, these effects could be minimal, or English proficiency might exert a greater influence than national identification. Specifically, individuals who identify less with the U.S. may not emphasize the importance of identification, potentially leading them to have milder expectations for immigrants to identify with the U.S.

To assess the robustness of our findings, although we did not pre-register the analysis, we exploratorily tested interactions between respondents' attributes and experimental variables

(i.e., national identification and English proficiency) into the model. We selected to focus on two representative groups with lower levels of U.S. identification: Democrat partisans and non-White individuals (e.g., Dawkins & Hanson, 2022; Theiss-Morse, 2009). This choice is based on the fact that Democrat partisans, characterized by more liberal and universalistic values, typically exhibit less nationalism, which results in a diminished sense of national identification. Similarly, non-White citizens, having experienced discrimination, may distance themselves from an American society that tolerates such prejudices.

The results presented in Figure A2 and A3 indicate the following: first, the effects of national identification are indeed lower for non-White respondents than for White respondents. Nevertheless, national identification remains more influential than English proficiency. Second, surprisingly, national identification appears to be equally influential for both Republican and Democrat respondents. In contrast, among independents, the effects of national identification are reduced. However, the marginal effects of national identification are still considerably larger than those of English proficiency. We presume that these outcomes arise because individuals with strong party identification, whether Republican or Democrat, more deeply identify with America than independents. Regardless, even though the effects of national identification diminish for certain groups, they remain important across all groups.

Study 2

In Study 1, we found that national identification has a larger effect on attitudes toward immigrants than language proficiency. However, the exact nature of the relationship between these two variables remains ambiguous. Previous research assumed that citizens infer national identification from immigrants' language proficiency, as language proficiency is a signal of national identification. To further examine the interrelations among these three variables, we conducted an additional study employing conjoint analysis, rather than a vignette experiment.

In this study, we aimed to better understand the separate causal effects of language proficiency and national identification on attitudes toward immigrants. Unlike vignette experiments, conjoint analysis enables the manipulation of much larger factors that could simultaneously influence the effects of national identification. While we controlled for some demographic information in the vignette text, respondents may deduce extra information, such as reasons for migration, from the experimental treatments (see Crabtree, et al., 2022). To address this possible issue, we incorporated these additional factors into our conjoint analysis. To analyze the mediating effects of language proficiency and identification, we randomly assigned respondents to one of two types of conjoint analysis: one that includes information about the immigrant's national identification as an attribute, and one that does not.

Research design

The conjoint analysis was conducted with U.S. citizens in February 2023. We used PureSpectrum's platform to recruit respondents, employing quota sampling based on gender, age, and geographic location. The initial sample comprised 6,402 respondents. We excluded individuals who were not U.S. citizens and those who failed our attention check questions, resulting in a final count of 4,231 respondents. Descriptive statistics for the respondents are presented in Table A2 in the Appendix. While we present the results excluding those who did not pass the attention check, the inclusion of these respondents did not substantively alter the findings (see Figure A4 in the Appendix).

We employed a paired conjoint analysis design similar to the one used by Hainmueller and Hopkins (2015). To investigate the separate effects of language proficiency and national identity, we divided the respondents into two groups at random. The first group received a set of attributes almost identical to those in the HH15 study. The second group was presented with an additional attribute related to immigrants' identification with the U.S. This attribute had

three categories: the immigrant "did not identify with the U.S.", "partially identified with the U.S.", and "identified with the U.S." By comparing the results of the two groups, we aimed to assess the effects of language proficiency and national identity.

The rationale behind this design parallels previous experimental studies that suggested observing the reduced effect size of an independent variable upon introducing a signaling variable (Kaas & Manger, 2012). If the effects of language proficiency are a proxy for national identification, respondents might infer a hypothetical immigrant's national identification from their language proficiency. By incorporating the national identification attribute into the conjoint, we anticipate that respondents will cease such inferences and instead respond directly to the national identification, potentially nullifying the effects of language proficiency (if fully mediated). In conjoint analysis, the average marginal component effect (AMCE) of a specific attribute is computed by averaging over the joint distribution of other attributes. Introducing an additional attribute can markedly alter the distribution of variables and their respective AMCEs. While this is intentional on our part, we have chosen to focus exclusively on our target variable (i.e., language) and avoid drawing conclusions or making comparisons regarding other attributes.

We presented respondents with 10 pairs of hypothetical immigrants, varying their attributes randomly. The number of tasks does not disturb results of experiments, as previous experimental study showed that even 30 tasks did not increase survey satisficing (Bansak, et al., 2018). For each pair, respondents were asked to rate individual hypothetical immigrants. The question for our outcome variable was: "How favorable is your attitude toward this immigrant?" with response options ranging from 1 (not favorable at all) to 4 (very favorable). This approach diverges from study by Hainmueller and Hopkins (2015), where respondents, in the role of immigrant officials, were asked to indicate their willingness to admit immigrants desiring entry into the U.S. We modified this because our objective was to capture the

significance of immigrants' identification. It seemed implausible that immigrants not yet granted residence in the U.S. would already have a higher degree of national identification.

Results

We present the results of our conjoint analysis in Figure 3, which shows the AMCEs of language proficiency and identification with the U.S. The figure displays the results for only two immigrant attributes—English proficiency and American identification. The AMCEs for other immigrant attributes can be found in Figure A5 in the Appendix.

Figure 3. Immigrant Attributes and Favorability (Conjoint Analysis)
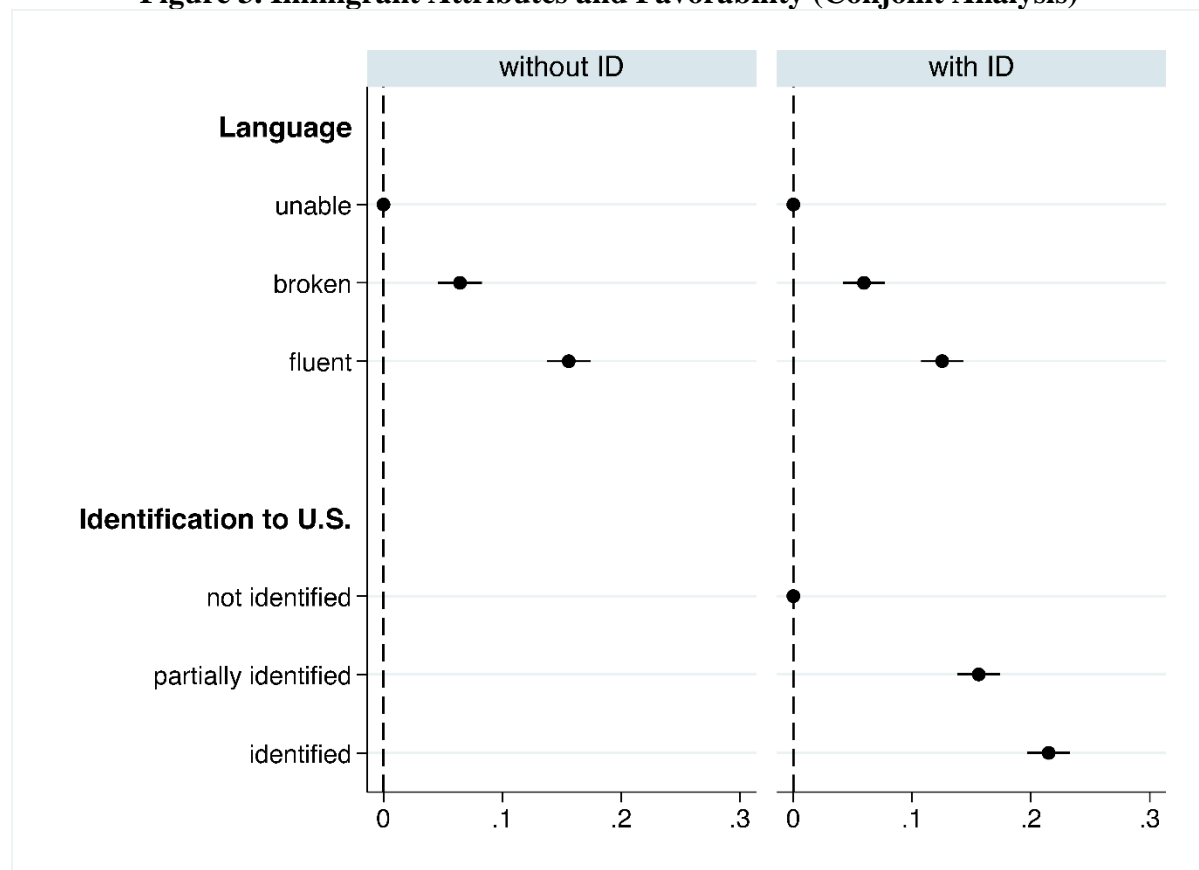
Notes: The plots display the estimated effects of the randomly assigned immigrant attributes on the favorability ratings by respondents. The horizontal bars represent the 95% confidence intervals for the point estimates. The left panel shows the results of the conjoint design without the identification attribute, while the right panel presents the results of the conjoint design with the identification attribute.

The AMCEs for language proficiency in the conjoint analysis, excluding the identification attribute, are as follows: for 'broken English,' it is 0.064 (0.010), and for 'fluent English,' it is 0.156 (0.009). In the conjoint analysis that includes the identification attribute, these values are 0.059 (0.009) and 0.125 (0.009), respectively. The differences in these values between the two types of conjoint analyses were not statistically significant for the 'broken English' case ($X^2(1) = 0.14, p = 0.709$) but were significant for the 'fluent English' case ($X^2(1) = 5.49, p = 0.019$).

Since the assignment to one of the two conjoint designs (i.e., the decision to present respondents with a national identification attribute) was randomized, we surmise that any reduction in the AMCE values for fluent English speakers can be attributed to including the national identification attribute. The subtle differences in language proficiency coefficients suggest that national identification does not completely account for the effect of language proficiency on attitudes toward immigrants. This implies that earlier studies, which employed language proficiency as a proxy for national identification under the assumption that respondents would infer an immigrant's national identification based on their language skills, are likely to be overstated. It appears that language is not well-established proxy for national identification, and both language proficiency and identification independently influence attitudes.

Discussion

We aimed to disentangle the relationships between immigrants' language proficiency, their identification with the host society, and the attitudes of the host country's citizens toward them. Prior research and anecdotal evidence have assumed that language acquisition is a pivotal indicator of fostering positive intergroup relations. This is because proficiency in the host country's language can be interpreted as a sign that immigrants deeply identify with the host

society. Both theoretical and empirical evidence underscore the sequential nature of language acquisition and identification with the host society (Gordon, 1964; Hochman & Davidov, 2014). However, the precise dynamics of these relationships remain ambiguous. To address this, we conducted two experimental studies to explore the degree to which immigrants' national identification effectively enhances attitudes, and to understand how immigrants' language proficiency and identification are interrelated.

Our findings can be summarized as follows: First, citizens indeed prefer immigrants who identify with the host society over those who do not. Second, and the effects of identification surpass those of language proficiency. Third, our conjoint analysis indicates that the effects of language proficiency are not entirely explained by identification. Contrary to prior assumptions, citizens do not exclusively associate high language proficiency with heightened levels of identification. It seems that language proficiency and identification function as distinct, independent variables.

The results we presented pose two important questions. First, why does identification exert an equal or even more significant influence than language proficiency? Three theories pertain to enhancing intergroup relations through cultural acquisition: cultural threats, common in-group identity, and intergroup contact. Of these, meta-analysis shows in-group identity as having slightly stronger effects. Immigrants' identification with the U.S. exemplifies this in-group identity. Harell et al. (2022) found that recognizing a mutual identity between citizens and immigrants boosts intergroup solidarity, encouraging resource redistribution to immigrants. This shared identity promotes inclusivity among citizens. However, language proficiency does not affect prejudice reduction as much as national identification. The reasons might include a lack of direct intergroup contact, the perception that a demonstrated willingness for intergroup contact through language acquisition does not necessarily reduce prejudice, and

straightforward anticipations of future language acquisition through national identification. Therefore, citizens might prioritize national identification over language proficiency.

Second, why does the effect of language proficiency not disappear when presented alongside identification information? Previous studies have posited that language indicates that immigrants have thoroughly assimilated the values, norms, and identity of the host society (Hainmueller & Hopkins, 2014, 2015). Indeed, higher language proficiency is associated with a stronger sense of national identification (Hochman & Davidov, 2014). However, our results imply that citizens perceive these two factors as somewhat distinct. They do not automatically associate robust identification with immigrants based solely on their proficiency in English. In today's globalized world, English has become a universal lingua franca. As such, U.S. citizens may regard proficiency in English as expected among immigrants, irrespective of their degree of identification with the U.S.

Despite the pronounced impact of national identification on intergroup attitudes, identification has often been overlooked or presumed to be supplanted by language or other cultural indicators. Our research underscores that identification with the host society independently correlates robustly with attitudes toward immigrants. Therefore, studies focusing on intergroup relations ought to prioritize immigrants' identification.

Our findings also carry significant societal implications, especially concerning cost-effectiveness of improving intergroup relations. While we recognize the importance of language acquisition both for intergroup relations and economic purposes, it is undeniable that language acquisition entails certain costs. In contrast, adopting and signaling national identification incurs no cost and is more readily attainable for immigrants. For assimilation in the U.S., immigrants would benefit from showcasing their identification with the nation. As pointed out in our introduction, American citizens may harbor sensitivities toward Spanish speakers. Yet, highlighting an immigrant's identification with American society can foster

positive feelings among its citizens. Emphasizing immigrants' identification with the U.S. can enhance intergroup dynamics.

We acknowledge certain limitations in our study and think that they offer opportunities for future research. First, while we employed a conventional set of attributes as outlined by Hainmueller & Hopkins (2015), there remains potential for refinement, particularly concerning the pivotal variable of language proficiency. We exclusively presented levels of immigrants' proficiency, yet respondents might struggle to envisage the true nature of effective communication between individuals. Similarly, there is uncertainty about whether respondents accurately conceptualized hypothetical immigrants who, despite lacking English skills, resonate with U.S. values.

Furthermore, national identification might imply various attributes. For instance, those identifying more closely with a nation might be perceived as less prone to criminal behavior. Although we clarified the legal status of visas, the strength of national identification could imply that such immigrants are less likely to infringe laws, which in turn could bolster positive intergroup perceptions. Future research should explore these nuances and explore how immigrants' national identification correlates with citizens' attitudes.

Finally, in real-life scenarios, people may deduce immigrants' national identification more indirectly through tangible indicators like displaying a national flag (Wright & Citrin, 2011) or specifying immigrant names (Fossati, Liechti, & Auer, 2020). However, these indirect indicators of national identification may amplify measurement error as these imply other attributes than national identification. Instead, we decided to directly and explicitly convey information about national identification of immigrants in the experiments. However, this approach might affect the study's ecological validity. While indirect markers might not capture the full spectrum of national identification and could introduce some errors, future studies should consider leveraging alternative indicators to address these issues.

References

Abascal, M., Huang, T. J., & Tran, V. C. (2021). Intervening in anti-immigrant sentiments: The causal effects of factual information on attitudes toward immigration. The ANNALS of the American Academy of Political and Social Science, 697(1), 174-191.

Auer, D. (2018). Language roulette–the effect of random placement on refugees' labour market integration. Journal of Ethnic and Migration Studies, 44(3), 341-362.

Arends-Tóth, J., & Vijver, F. J. V. D. (2003). Multiculturalism and acculturation: views of Dutch and Turkish–Dutch. European Journal of Social Psychology, 33(2), 249-266.

Bansak, K., Hainmueller, J., Hopkins, D. J., & Yamamoto, T. (2018). The number of choice tasks and survey satisficing in conjoint experiments. Political Analysis, 26(1), 112-119.

Berry, J. W. (1997). Immigration, acculturation, and adaptation. Applied psychology, 46(1), 5-34.

Castanho Silva, B. (2018). The (Non)Impact of the 2015 Paris Terrorist Attacks on Political Attitudes. Personality and Social Psychology Bulletin, 44(6), 838–850.

Charnysh, V., Lucas, C., & Singh, P. (2015). The ties that bind: National identity salience and pro-social behavior toward the ethnic other. Comparative political studies, 48(3), 267-300.

Choi, D. D., Poertner, M., & Sambanis, N. (2021). Linguistic assimilation does not reduce discrimination against immigrants: evidence from Germany. Journal of Experimental Political Science, 8(3), 235-246.

Crabtree, C., Gaddis, S. M., Holbein, J. B., & Larsen, E. N. (2022). Racially distinctive names signal both race/ethnicity and social class. Sociological Science, 9, 454-472.

Czymara, C. S., & Schmidt-Catran, A. W. (2017). Refugees unwelcome? Changes in the public acceptance of immigrants and refugees in Germany in the course of Europe's 'immigration crisis'. European Sociological Review, 33(6), 735-751.

Dancygier, R. M., & Laitin, D. D. (2014). Immigration into Europe: Economic Discrimination, Violence, and Public Policy. Annual Review of Political Science, 17(1), 43–64.

David, O., & Bar-Tal, D. (2009). A sociopsychological conception of collective identity: The case of national identity as an example. Personality and Social Psychology Review, 13(4), 354-379.

Dawkins, R., & Hanson, A. (2022). 'American' is the Eye of the Beholder: American Identity, Racial Sorting, and Affective Polarization among White Americans. Political Behavior, 1-21.

Donnaloja, V. (2022). British Nationals' Preferences Over Who Gets to Be a Citizen According to a Choice-Based Conjoint Experiment. European Sociological Review, 38(2), 202-218.

Esses, V. M. (2021). Prejudice and Discrimination Toward Immigrants. Annual Review of Psychology, 72, 503–531.

Flores, R. D., & Schachter, A. (2018). Who are the "illegals"? The social construction of illegality in the United States. American Sociological Review, 83(5), 839-868.

Fossati, F., Liechti, F., & Auer, D. (2020). Can signaling assimilation mitigate hiring discrimination? Evidence from a survey experiment. Research in Social Stratification and Mobility, 65, 100462.

Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. European review of social psychology, 4(1), 1-26.

Giani, M., & Merlino, L. P. (2020). Terrorist attacks and minority perceived discrimination. British Journal of Sociology, (October), 1–14.

Goldsmith, B. E., Horiuchi, Y., & Matush, K. (2021). Does Public Diplomacy Sway Foreign Public Opinion? Identifying the Effect of High-Level Visits. American Political Science Review, 1-16.

Grigoryan, L., Cohrs, J. C., Boehnke, K., van de Vijver, F. A., & Easterbrook, M. J. (2022). Multiple categorization and intergroup bias: Examining the generalizability of three theories of intergroup relations. Journal of Personality and Social Psychology, 122(1), 34.

Hainmueller, J., & Hiscox, M. J. (2010). Attitudes toward highly skilled and low-skilled immigration: Evidence from a survey experiment. American political science review, 104(1), 61-84.

Hainmueller, J., & Hopkins, D. J. (2014). Public Attitudes Toward Immigration. Annual Review of Political Science, 17(1), 225–249.

Harell, A., Banting, K., Kymlicka, W., & Wallace, R. (2022). Shared membership beyond national identity: Deservingness and solidarity in diverse societies. Political Studies, 70(4), 983-1005.

Hartman, T. K., Newman, B. J., & Scott Bell, C. (2014). Decoding prejudice toward Hispanics: Group cues and public reactions to threatening immigrant behavior. Political Behavior, 36, 143-163.

Haynes, C. (2020). 'This is America, speak English': Attack on mother, daughter speaking Spanish caught on camera. Boston News. Retrieved from https://www.boston25news.com/news/this-is-america-speak-english-unprovoked-attack-people-speaking-spanish-caught-camera/T5HZRXM2NVGPFEGOUQHXQ 52TQU/. (accessed on 15 February, 2024)

Helbling, M., & Kriesi, H. (2014). Why citizens prefer high-over low-skilled immigrants. Labor market competition, welfare state, and deservingness. European Sociological Review, 30(5), 595-614.

Hochman, O., & Davidov, E. (2014). Relations between second-language proficiency and national identification: The case of immigrants in Germany. European Sociological Review, 30(3), 344-359.

Hopkins, D. J. (2015). The upside of accents: Language, inter-group difference, and attitudes toward immigration. British Journal of Political Science, 45(3), 531-557.

Hutchison, M. L. (2013). Tolerating Threat? The Independent Effects of Civil Conflict on Domestic Political Tolerance. Journal of Conflict Resolution, 58(5), 796–824.

Jasinskaja-Lahti, I., Liebkind, K., Horenczyk, G., & Schmitz, P. (2003). The interactive nature of acculturation: Perceived discrimination, acculturation attitudes and stress among young ethnic repatriates in Finland, Israel and Germany. International Journal of Intercultural Relations, 27(1), 79-97.

Justwan, F., & Fisher, S. K. (2018). Territorial claims, territorial attachment, and political tolerance: evidence from India. Politics, Groups, and Identities, 1-18.

Kaas, L., & Manger, C. (2012). Ethnic discrimination in Germany's labour market: A field experiment. German economic review, 13(1), 1-20.

Kagotani, K. (2015). National Security Environments, Patriotism, and Japanese Public Opinion. Japanese Journal of Political Science, 16(1), 96.

Kijewski, S., & Rapp, C. (2019). Moving forward? How war experiences, interethnic attitudes, and intergroup forgiveness affect the prospects for political tolerance in postwar Sri Lanka. Journal of peace research, 56(6), 845-859.

Legewie, J. (2013). Terrorist events and attitudes toward immigrants: A natural experiment. American Journal of Sociology, 118(5), 1199-1245.

Leidner, B., Castano, E., Zaiser, E., & Giner-Sorolla, R. (2010). Ingroup glorification, moral disengagement, and justice in the context of collective violence. Personality and Social Psychology Bulletin, 36(8), 1115-1129.

Lucassen, G., & Lubbers, M. (2012). Who fears what? Explaining far-right-wing preference in Europe by distinguishing perceived cultural and economic ethnic threats. Comparative Political Studies, 45(5), 547-574.

Malhotra, N., Margalit, Y., & Mo, C. H. (2013). Economic explanations for opposition to immigration: Distinguishing between prevalence and conditional impact. American Journal of Political Science, 57(2), 391-410.

Martinovic, B., van Tubergen, F., & Maas, I. (2009). Dynamics of interethnic contact: A panel study of immigrants in the Netherlands. European Sociological Review, 25(3), 303-318.

Martinovic, B., van Tubergen, F., & Maas, I. (2015). A longitudinal study of interethnic contacts in Germany: Estimates from a multilevel growth curve model. Journal of Ethnic and Migration Studies, 41(1), 83-100.

Moore, T., Vago, S., & Woods, A. (2021). 'Speak English, b—h': Suspect pulled Asian woman's hair and spat on her, cops say. *New York Post*. https://nypost.com/2021/07/26/suspect-told-asian-woman-to-speak-english-before-assault-cops/. Retrieved from (accessed on 15 February, 2024).

Newman, B. J., Hartman, T. K., & Taber, C. S. (2012). Foreign language exposure, cultural threat, and opposition to immigration. Political Psychology, 33(5), 635-657.

Newman, B. J., & Malhotra, N. (2019). Economic reasoning with a racial hue: is the immigration consensus purely race neutral?. The Journal of Politics, 81(1), 153-166.

Piazza, J. A. (2011). Poverty, minority economic discrimination, and domestic terrorism. Journal of Peace Research, 48(3), 339-353.

Paluck, E. L., Porat, R., Clark, C. S., & Green, D. P. (2021). Prejudice reduction: Progress and challenges. Annual review of psychology, 72, 533-560.

Rabinowitz, J. L., Sears, D. O., Sidanius, J., & Krosnick, J. A. (2009). Why Do White Americans oppose race-targeted policies? Clarifying the impact of symbolic racism. Political psychology, 30(5), 805-828.

Rapp, C., Kijewski, S., & Freitag, M. (2019). The tolerance of Tamils: War-related experiences, psychological pathways, and the probability of granting civil liberties to former enemies. The Journal of Politics, 81(4), 1328-1341.

Roblain, A., Azzi, A., & Licata, L. (2016). Why do majority members prefer immigrants who adopt the host culture? The role of perceived identification with the host nation. International journal of intercultural relations, 55, 44-54.

Sánchez-Cuenca, I., & De la Calle, L. (2009). Domestic terrorism: The hidden side of political violence. Annual Review of Political Science, 12, 31-49.

Schmaus, M., & Kristen, C. (2022). Foreign Accents in the Early Hiring Process: A Field Experiment on Accent-Related Ethnic Discrimination in Germany. International Migration Review, 56(2), 562-593.

Schulz, B., & Leszczensky, L. (2016). Native friends and host country identification among adolescent immigrants in Germany: The role of ethnic boundaries. International Migration Review, 50(1), 163-196.

Schut, R. A. (2021). "New White Ethnics" or "New Latinos"? Hispanic/Latino Pan-ethnicity and Ancestry Reporting among South American Immigrants to the United States. International Migration Review, 55(4), 1061-1088.

Sides, J., & Citrin, J. (2007). European opinion about immigration: The role of identities, interests and information. British journal of political science, 37(3), 477-504.

Theiss-Morse Elizabeth. 2009. Who Counts as an American? The Boundaries of National Identity. Cambridge, UK: Cambridge University Press.

Tir, J., & Singh, S. P. (2015). Get off My Lawn: Territorial Civil Wars and Subsequent Social Intolerance in the Public. Journal of Peace Research, 52(4), 478–491.

Transue, J. E. (2007). Identity salience, identity acceptance, and racial policy attitudes: American national identity as a uniting force. American Journal of Political Science, 51(1), 78-91.

Valentino, N. A., Soroka, S. N., Iyengar, S., Aalberg, T., Duch, R., Fraile, M., ... & Kobayashi, T. (2019). Economic and cultural drivers of immigrant support worldwide. British Journal of Political Science, 49(4), 1201-1226.

Vervoort, M., Flap, H., & Dagevos, J. (2011). The ethnic composition of the neighbourhood and ethnic minorities' social contacts: Three unresolved issues. European Sociological Review, 27(5), 586-605.

Wike, R., Poushter, J. F., & Schumacher, S. (2020). Trump ratings remain low around globe, while views of U.S. stay mostly favorable. Pew Research Center.

Wright, M., & Citrin, J. (2011). Saved by the stars and stripes? Images of protest, salience of threat, and immigration attitudes. American Politics Research, 39(2), 323-343.

**Table A1. Descriptive statistics of respondents for Study 1**

	Mean (S.D.)
Gender (male)	46.98%
Age	48.595 (16.832)
Party identification	
Democrat	39.88%
Republican	28.63%
Independent	31.49%
Race	
White	77.44%
African American	9.74%
Latino	5.29%
Other	7.45%
Education	
High school	24.84%
Some college	33.86%
BA	27.97%
Graduate school	13.32%

Figure A1a. Immigrant Attributes and Favorability (Vignette Experiment) Estimated without Control Variables
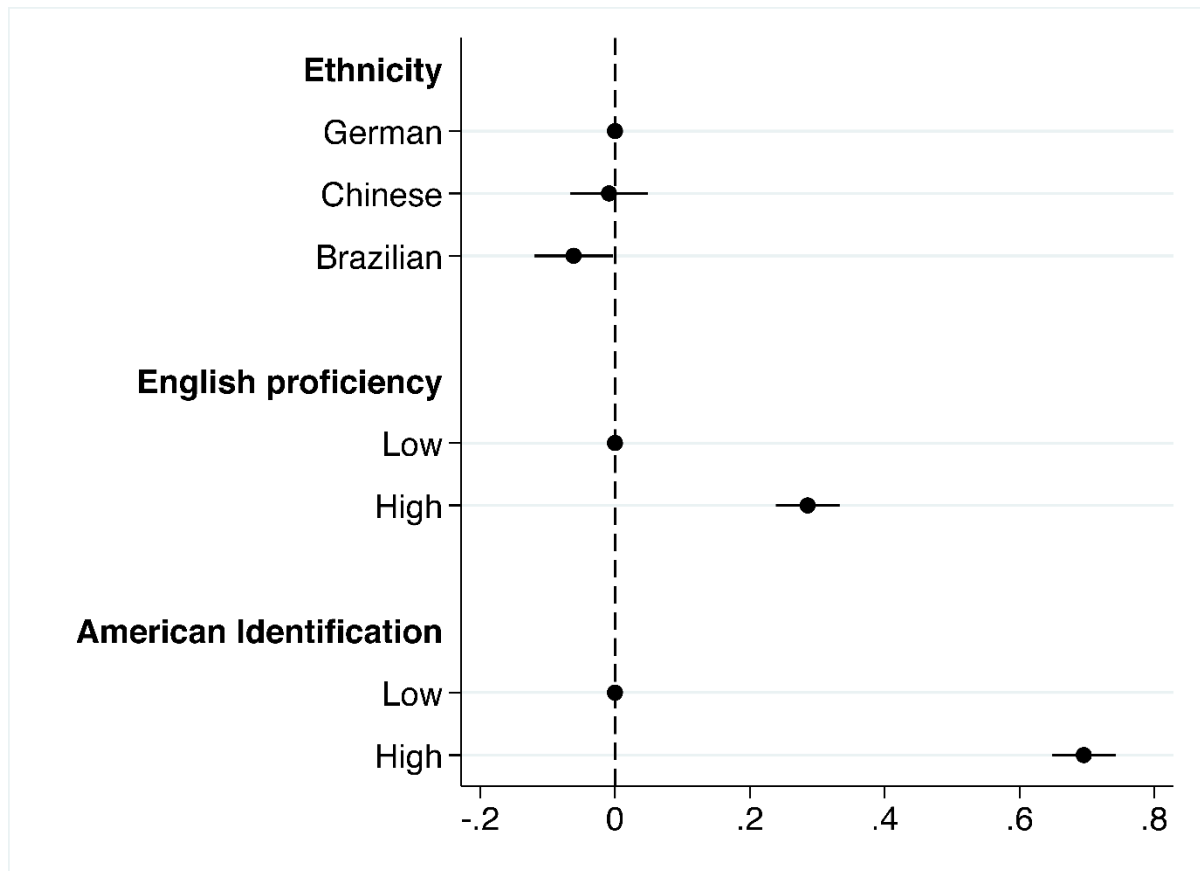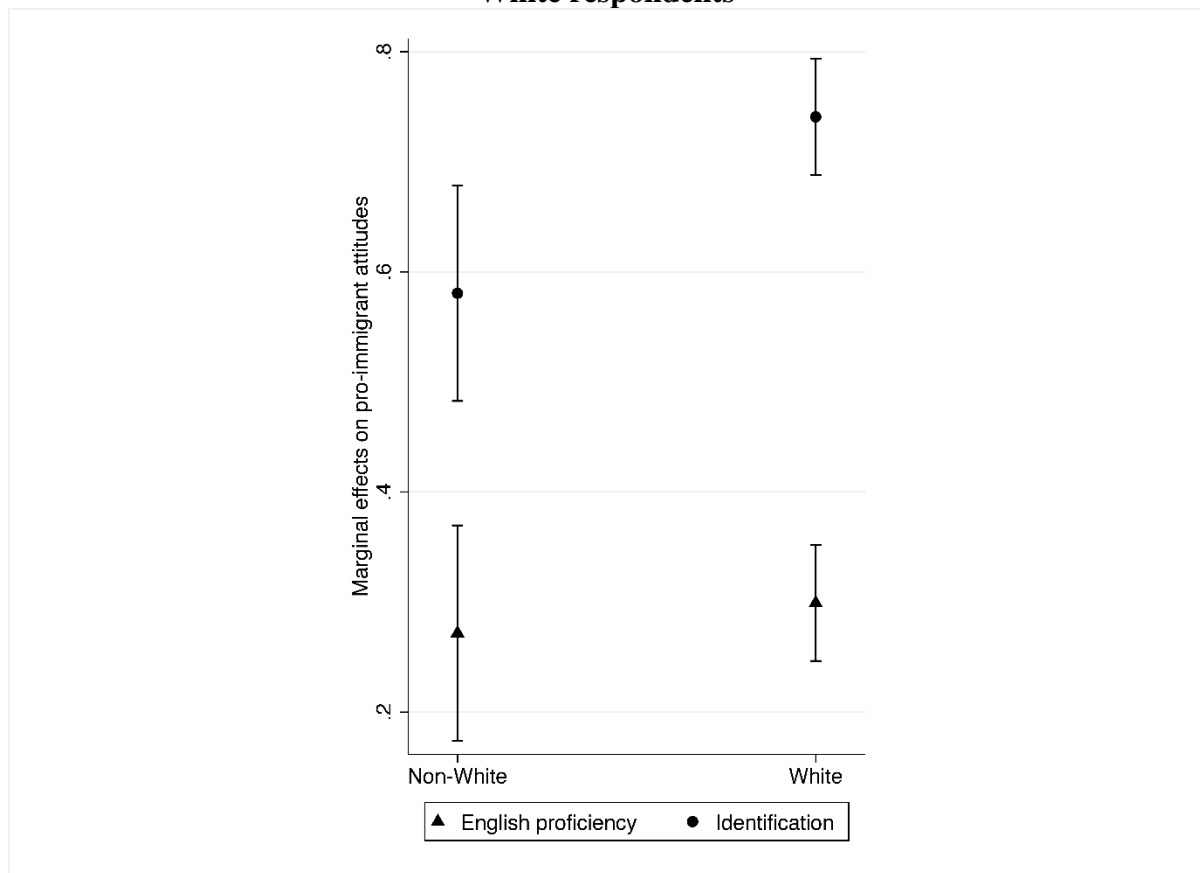

Notes: Linear regression model estimated without any covariates for respondent attributes. The plots display the estimated effects of the randomly assigned immigrant attributes on the favorability ratings by respondents. The horizontal bars represent the 95% confidence intervals for the point estimates.

Figure A1b. Immigrant Attributes and Permanent Residency Permission (Vignette Experiment) Estimated without Control Variables
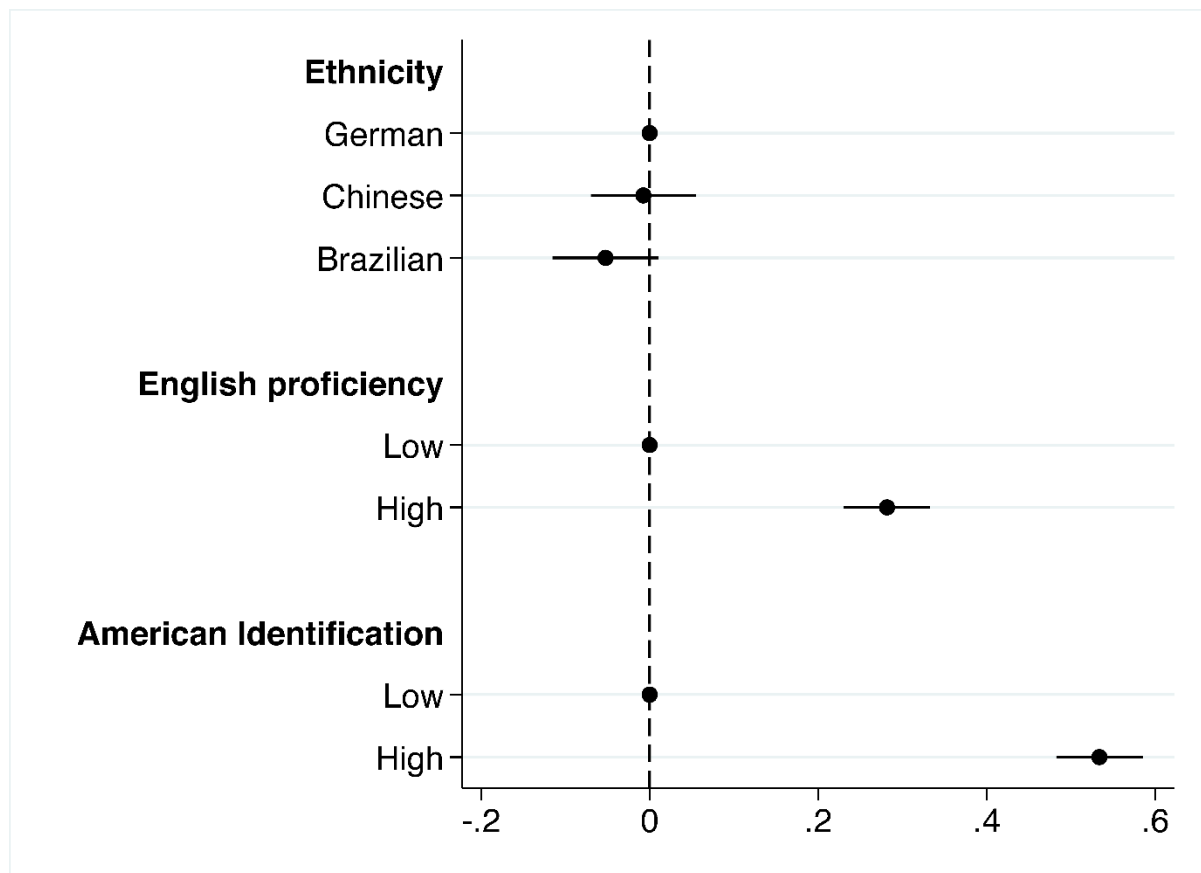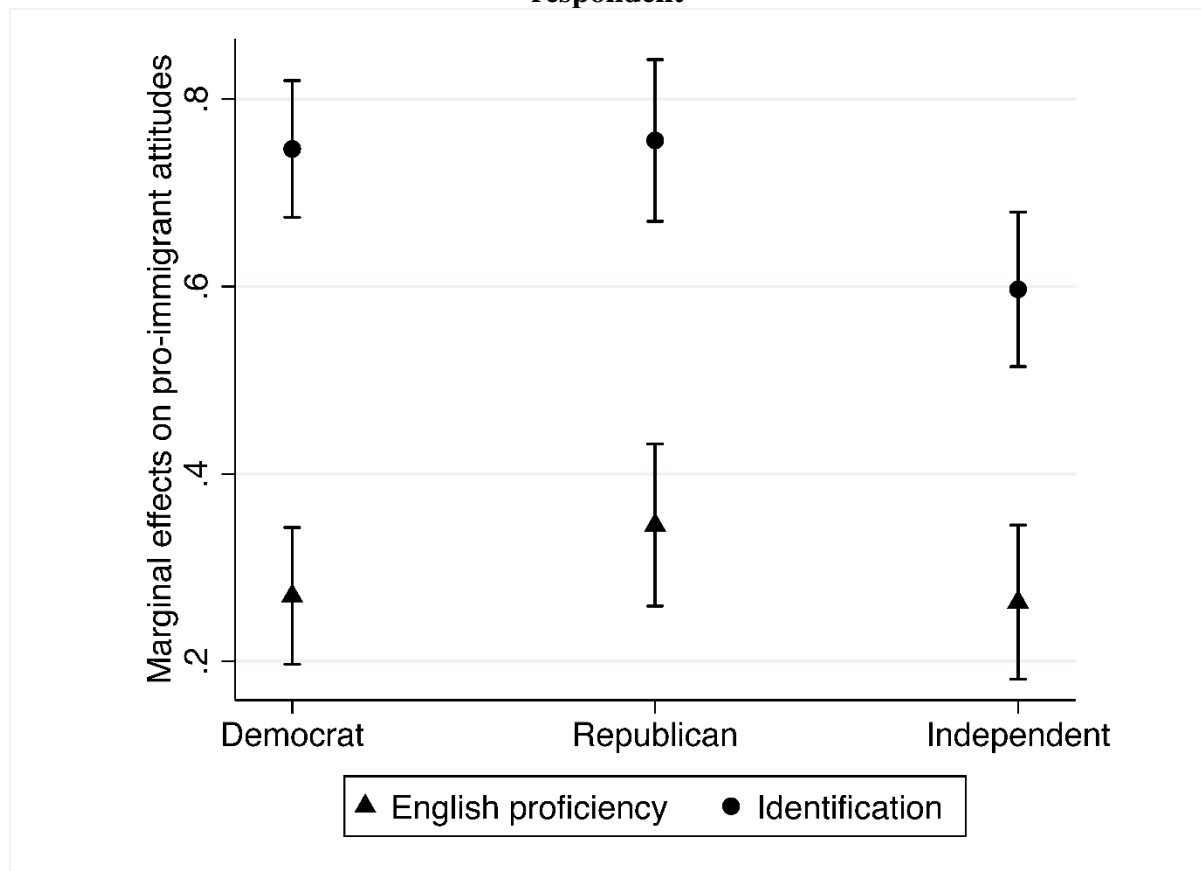

Notes: Linear regression model estimated without any covariates for respondent attributes. The plots display the estimated effects of the randomly assigned immigrant attributes on the favorability ratings by respondents. The horizontal bars represent the 95% confidence intervals for the point estimates.

Figure A2. Marginal effects of English proficiency and identification for White and non-White respondents

Notes: Linear regression models estimated with an interaction between English proficiency or national identification and respondent race. The models also include controls for respondent age, gender, race, education, party, and region of residence. The vertical bars represent the 95% confidence intervals for the point estimates.

**Figure A3. Marginal effects of English proficiency and identification for each partisan respondent**

Notes: Linear regression models estimated with an interaction between English proficiency or national identification and respondent partisanship. The models also include controls for respondent age, gender, race, education, party, and region of residence. The vertical bars represent the 95% confidence intervals for the point estimates.

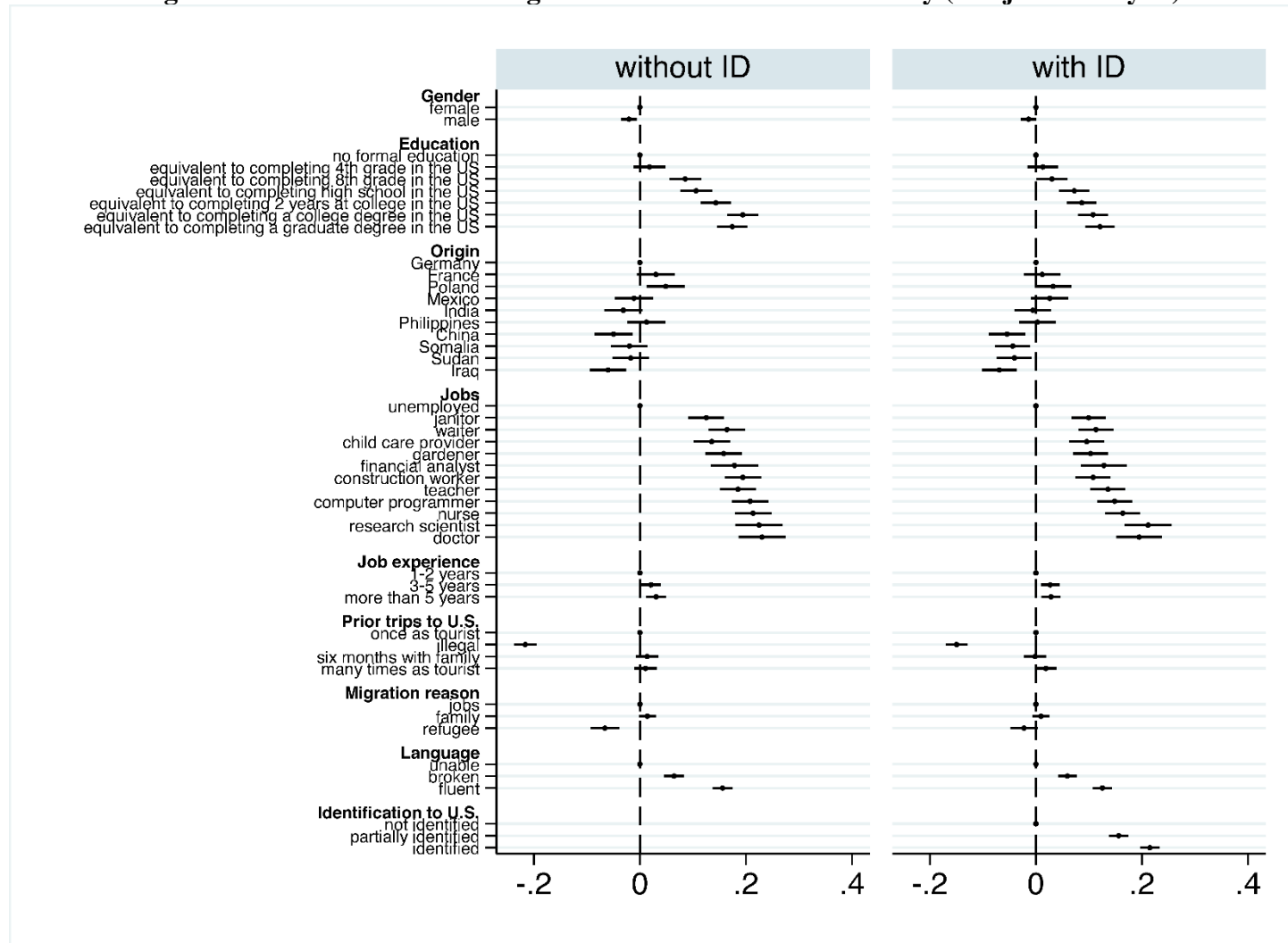**Table A2. Descriptive statistics of respondents for Study 2**

	Mean (S.D.)
Gender (male)	44.84%
Age	46.892 (17.352)
Party identification	
Democrat	36.95%
Republican	42.05%
Independent	21.00%
Race	
White	72.05%
African American	8.31%
Latino	10.24%
Other	9.40%
Education	
High school	28.78%
Some college	31.17%
BA	22.22%
Graduate school	11.83%

Figure A4. Main results including inattentive respondents
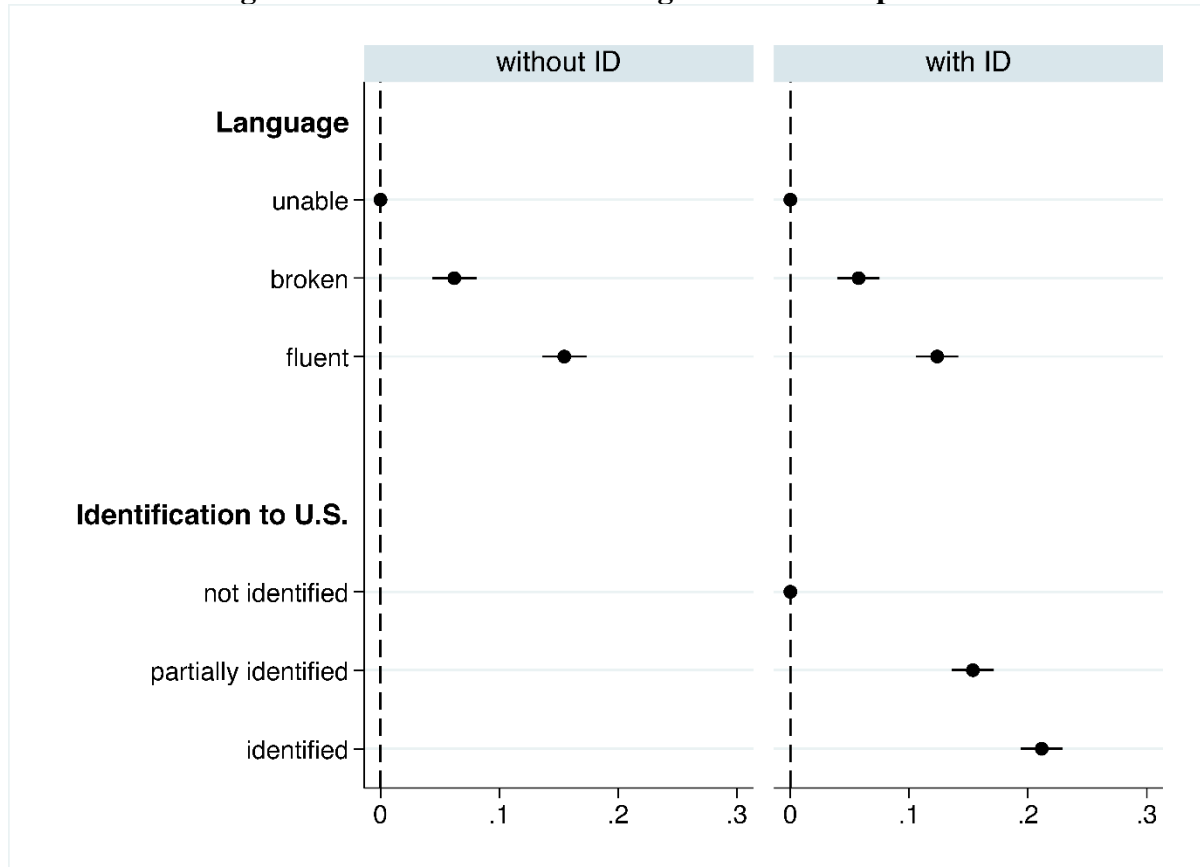
Notes: The plots display the estimated effects of the randomly assigned immigrant attributes on the favorability ratings by respondents. The horizontal bars represent the 95% confidence intervals for the point estimates. The left panel shows the results of the conjoint design without the identification attribute, while the right panel presents the results of the conjoint design with the identification attribute. The sample includes respondents who failed to pass the attention check question.

Figure A5. Full Results of Immigrant Attributes and Favorability (Conjoint Analysis)

Notes: The plots display the estimated effects of the randomly assigned immigrant attributes on the favorability ratings by respondents. The horizontal bars represent the 95% confidence intervals for the point estimates. The left panel shows the results of the conjoint design without the identification attribute, while the right panel presents the results of the conjoint design with the identification attribute.