

**The Centrality of Ethnicity and Religion in Perceptions about Immigration:
Evidence from Conjoint Experiments in the United States and Britain**

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Abstract

A number of important questions in the politics of immigration deal with perceptions about immigrants. For instance, existing literature often makes a presumption that Americans think of immigrants as mostly Hispanic. But how central is ethnicity to these perceptions when compared with other attributes such as skill? And is thinking about immigration in terms of ascriptive identities a uniquely American or a more general phenomenon? I answer these questions using two original conjoint experiments carried out in the United States and Britain, in which respondents estimate hypothetical persons' probabilities of being immigrants based on presented descriptions. Results demonstrate that perceptions about immigrants among Americans and Britons are strongly dominated by ethnicity and religion. Regression analyses using individual-level estimates from conjoint experiments show that perceptions about immigrants' ethnicity, religion, and criminal behavior consistently predict anti-immigration attitudes, whereas perceptions about skills do not. Overall, the findings indicate that ascriptive identities dominate both content and consequences of perceptions about immigration and that this phenomenon holds across national contexts.

Keywords: attitudes, conjoint analysis, ethnicity, immigration, perceptions

An extensive literature in political science explores the factors that shape public attitudes toward immigration (Hainmueller and Hopkins 2014), and (mis)perceptions about immigrants seem to play an important role in politics (Lutz and Bitschnau 2022). For instance, attitudes toward immigrants are broadly believed to be heavily impacted by group-based prejudice, with Hispanics in the United States being the most prominent case.¹ Presentation of Hispanic immigrants in the news media changes whites' opinions on the issue (Brader, Valentino, and Suhay 2008), and implicit attitudes toward Hispanics spill over into immigration policy preferences (Perez 2010). The standard interpretation of these findings has to deal with perceptions: according to a popular logic, Americans imagine immigrants as predominantly Hispanics, and these mental images color opinions on immigration as a political issue. However, existing evidence for this conjecture is only indirect since the degree to which “Hispanic” as an attribute is central to the mental representations of “immigrants” among members of the American public has never been measured.

Importantly, group affect is not the only consideration that likely factors into natives' opinions on immigration—and, consequently, ethnicity is not the only dimension of perceptions about immigrants that researchers may be interested in exploring. For instance, Americans as well as citizens of other industrial democracies agree that potential immigrants who have valuable skills should be preferred for admission (Hainmueller and Hopkins 2015; Valentino et al. 2019). Immigrants' willingness to integrate and respect both formal and informal rules of the host society also prominently impact opinions on immigration (Levy and Wright 2020; Ostfeld 2017). At the same time, evidence shows that preferences for skilled and law-abiding immigrants

¹ In my experiment, I use “Hispanic” as an attribute because incorporating gendered labels like “Latina” and “Latino” in conjoint designs is less straightforward, whereas the gender-neutral term “Latinx” may still be unfamiliar to many respondents. Throughout the paper, I also use “Hispanic” as a group label for consistency.

can mask group-based prejudice among natives. In the U.S. context, Mexican immigrants are more strongly penalized for transgressive behavior than immigrants from the UK or Canada (Hartman, Newman, and Bell 2014). Similarly, evaluations of Hispanic immigrants depend on skill more heavily than evaluations of immigrants from Europe (Newman and Malhotra 2018). In other words, different dimensions of perceptions about immigration—such as natives’ beliefs about immigrants’ group identity, potential economic contribution, and threatening behavior—likely overlap.

Disentangling these dimensions, which can be thought of as a “bundle of sticks” (Sen and Wasow 2016), is a complicated task. Recent research employing latent class analysis demonstrates that attributes potentially associated with immigrants, such as “Hispanic” and “low skilled,” are indeed intertwined in the minds of white Americans (Flores and Azar 2022). A limitation of the latent class approach is that although it allows exploring how different attributes are conflated in common immigrant “archetypes,” there is no straightforward way to compare their centrality in the content and consequences of perceptions. Some studies also use respondents’ self-reports to explore perception dimensions separately (Blinder 2015; Zhirkov 2021), but they are subject to other methodological problems including social desirability bias and innumeracy.

This discussion suggests several requirements that a good measure of perceptions about immigrant populations should satisfy. First, it must allow investigating multiple beliefs simultaneously: potential examples include immigrants’ ethnicity or religion, skill/occupation, and propensity for criminal behavior. Second, such a measure should be able to compare the centrality or importance of different dimensions in both content and consequences of perceptions about immigrants. Third, a method needs to be subtle to decrease concerns about social

desirability due to the sensitivity of immigration as a topic. Fourth, a good measure should be flexible and applicable to perceptions about immigrant populations beyond the case of Hispanics in the United States.

In this paper, I contribute to the literature by exploring the content and implications of perceptions about immigrants using a recently validated method based on conjoint experiments (Myers, Zhirkov, and Lunz Trujillo 2022). In these experiments, respondents are presented with profiles that describe hypothetical persons in terms of several attributes; then they are asked to estimate these persons' probability of belonging to a certain social category (in this case, immigrants). Estimated effects from such conjoint designs measure the direction and strength of cognitive associations between each included attribute and the social category in question.

The conjoint method of measuring perceptions adheres to all the requirements specified above: it is inherently multidimensional since respondents are asked to rate profiles described in terms of several attributes. Inferring perceptions from observed categorizations instead of relying on self-reports provides greater protection against social desirability, demand effects, and rationalization. Since conjoint effects are estimated independently for different perception dimensions, they allow comparing the centrality of different attributes for both content and consequences of beliefs about immigrants.

Results of two original conjoint experiments carried out in the United States and Britain demonstrate that respondents primarily rely on persons' ethnicity and religion when making guesses about their nativity status. Further, regression analyses that employ individual-level estimates from conjoint experiments show consistent effects of perceptions about immigrants' ethnicity and religion on attitudes toward immigration—but not of perceptions about skills. These findings have important implications for the politics of immigration by illustrating the

centrality of ethnicity and religion in both content and consequences of perceptions about immigration and highlighting its general rather than U.S.-specific character.

Perceptions and Attitudes toward Immigration

The realities of life in a modern society create an essential gap between people's cognitive abilities and the amount of information they need to acquire and process (Lippmann 1922). To cope with these challenges of information processing and storage, people create simplified and often distorted mental images of social reality. Then these images, rather than the underlying reality, inform social attitudes. This conjecture, even though first put forward a century ago, has held up well to the present: people's preferences are largely built on imagination, and policies that benefit populations imagined as "undeserving" enjoy lower levels of public support (Petersen 2012; Schneider and Ingram 1993).

This framework is applicable to immigration for several reasons. Immigrants are a complicated and abstract category that most people are not familiar with and have little knowledge about (Lutz and Bitschnau 2022). Studies have repeatedly demonstrated large and consequential misperceptions about the size of immigrant populations among the publics in industrial democracies (Citrin and Sides 2008; Gorodzeisky and Semyonov 2020; Hjerm 2007). The centrality of perceptions in the formation of attitudes toward immigration can explain their stability (Kustov, Laaker, and Reller 2021), given that beliefs about immigrants are extremely resilient even in the light of new relevant information (Glinitzer, Gummer, and Wagner 2021; Hopkins, Sides, and Citrin 2019).

Researchers have recently moved from describing perceptions about sizes of immigrant populations to exploring more detailed beliefs about the specific attributes that, in people's minds, distinguish immigrants from natives. Studies have shown that natives' beliefs about

immigrant populations significantly deviate from objective data and that these beliefs predict attitudes toward immigration (Blinder 2015; Flores and Azar 2022; Zhirkov 2021). In other words, people's opinions are based on perceptions about immigrants rather than on the underlying social reality.

Problems with Measuring Perceptions

Existing studies on perceptions about immigrants use standard survey questions. For instance, respondents may choose the most frequent value of a certain attribute, such as reason for migration (Blinder 2015). Such responses can be analyzed using the latent class technique to see which immigrant attributes tend to go together in people's minds: for instance, whether respondents who associate immigration with Hispanics are also more likely to see more immigrants as low skilled (Flores and Azar 2022). Alternatively, respondents estimate the percentages of immigrants having the attribute values of interest, such as a college education or English proficiency (Zhirkov 2021). Then, independent of the specific measurement method, self-reported attitudes are regressed on self-reported perceptions.

This inferential strategy carries several methodological challenges. One of them is social desirability bias, a tendency to underreport beliefs considered inappropriate (Nederhof 1985). Another problem is demand-effects that arise when participants make guesses of the study purpose and change responses to fit that assumed purpose (Nichols and Maner 2008). Self-reported perceptions, especially for attributes involving strong affect, can also be rationalizations of preexisting attitudes rather than their antecedents (Lodge and Taber 2013).

These methodological issues likely have different consequences for measuring various perception dimensions and estimating their social implications. Respondents may be more hesitant to express perceptions about immigrants' ethnicity and religion while arguments about

immigrants' economic productivity and reliance on welfare are more accepted in the public debate. As a result, researchers may underestimate both the extent and variation of ethnic and religious perceptions about immigrants—and this can bias estimated relationships between these perceptions and attitudes toward immigration.

Measuring Perceptions Using Conjoint Experiments

This paper addresses these challenges by measuring perceptions about immigrants with conjoint experiments. The conjoint analysis is a survey-experimental design that allows researchers to study choices potentially affected by multiple factors or considerations (Hainmueller, Hopkins, and Yamamoto 2014). Conjoint experiments are commonly used to explore multidimensional preferences—including on immigration (Clayton, Ferwerda, and Horiuchi 2021; Ford and Mellon 2020; Hainmueller and Hopkins 2015). In such tasks, respondents are presented with multiple pairs of hypothetical immigrants described using a set of randomized attributes; then they are asked to choose the immigrant they would prefer to admit.

Researchers have recently started using conjoint experiments to study beliefs about the social world rather than preferences (Flores and Schacter 2018; Goggin, Henderson, and Theodoridis 2020; Schachter, Flores, and Maghbouleh 2021). In these categorization-based conjoint experiments, respondents are asked to infer group memberships of hypothetical persons from presented attributes rather than to express preferences. For instance, the task can present respondents with profiles of political candidates and ask them to guess whether each profile belongs to a Democrat or a Republican based on information about religion, military experience, occupation, and so on.

The conjoint-experimental design offers essential protections against social desirability, demand effects, and rationalization. First, it can lead respondents to believe that they can

“conceal” the characteristics most impactful for their classification decisions from the researcher since the profiles they are asked to categorize differ on multiple dimensions. Second, unlike standard survey questions that require respondents to rate perceptions on all dimensions of interest, conjoint designs tap judgments based only on dimensions relevant for each respondent. Third, conjoint tasks infer perceptions indirectly from observed choices; thus, concerns about rationalization are decreased. In addition, conjoint-based measures have been externally validated (Hainmueller, Hangartner, and Yamamoto 2015; Jenke et al. 2020); are resilient to a number of data quality problems in survey research, such as satisficing (Bansak et al. 2018, 2021); and help decrease social desirability bias (Horiuchi, Markovich, and Yamamoto 2021).

Conjoint experiments have another important benefit as a measure of perceptions: protection from survey participants using factual knowledge. When answering a standard question on perceptions, such as an item asking about the percentage of immigrants who are younger than age 40, a respondent can simply know the statistic or even look it up online (Clifford and Jerit 2016). However, a conjoint-based measure makes application of such knowledge nearly impossible because of the provision of multiple attributes in profiles. For instance, calculating the conditional probability of being an immigrant (A) for a woman (B) with a high-skilled job (C) would require knowing both the joint probability of having the latter two characteristics and the joint probability of having all three:

$$\Pr(A|B, C) = \frac{\Pr(A, B, C)}{\Pr(B, C)}.$$

This obviously becomes even more difficult as more attributes enter the calculation process.

Individual-Level Estimates from Conjoint Experiments

Usually, researchers use average marginal component effects (AMCEs) from conjoint experiments to describe aggregate perceptions in studied populations. However, a procedure to

obtain individual marginal component effects (IMCEs) has recently been proposed (Zhirkov 2022). This procedure does not require any additional assumptions compared to the standard conjoint analysis. At the same time, there are some design requirements: using an interval response scale, minimizing the number of randomized values per attribute, and maximizing the number of profiles presented to respondents. IMCEs from categorization-based conjoint experiments measure individual-level perceptions, similar to how estimates from standard choice-based conjoint tasks measure preferences. These measures can be used in inferential analyses to explore how perceptions relate to attitudes (Myers, Zhirkov, and Lunz Trujillo 2022).

Formally, the procedure for obtaining IMCEs and using them as predictors in subsequent regression analysis can be described as follows. Consider a sample of respondents indexed $i = 1, \dots, I$. Each respondent rates profiles of hypothetical people indexed $j = 1, \dots, J$ by likelihood of being immigrants. Profiles have attributes indexed $k = 1, \dots, K$. Each attribute has a specific number of levels indexed $l = 1, \dots, L^k$. At the first step, IMCEs for each attribute k are estimated using respondent-specific regression models:

$$y_{ij} = \alpha_{ik} + \sum_{l=2}^{L^k} \beta_{ikl} x_{ijkl} + \varepsilon_{ijk}$$

where y_{ij} is the rating given by respondent i to profile j , α_{ik} is the constant, β_{ikl} is the respondent-specific regression coefficient for value l of attribute k , x_{ijkl} is an indicator variable that equals 1 if attribute k from profile j presented to respondent i has value l and 0 otherwise, and ε_{ijk} is the error. To achieve identification, β_{ik1} is not estimated and IMCEs effectively represent the estimated differences in average ratings between profiles with their respective attribute values and profiles with the baseline value.

Estimate of IMCE for value l of attribute k specific to respondent i , denoted π_{ikl} , is equivalent to the estimate of respondent-specific regression coefficient

$$\hat{\pi}_{ikl} = \hat{\beta}_{ikl}.$$

This estimate assesses the direction and strength of the perception along a specific dimension for each individual: the degree to which respondent i associates value l of attribute k (e.g., having a low-skilled occupation) with the outcome (e.g., being an immigrant). At the second step, IMCE estimates for all K attributes and $(L^k - 1)$ attribute values (baseline values excluded) are used in regression analysis to predict the outcome of interest z , such as attitude toward immigration, with a set of control variables indexed $h = 1, \dots, H$:

$$z_i = \gamma + \sum_{k=1}^K \sum_{l=2}^{L^k} \delta_{kl} \hat{\pi}_{ikl} + \sum_{h=1}^H \theta_h w_{ih} + u_i$$

where γ is the constant, δ_{kl} is the coefficient of perception l along dimension k , θ_h is the coefficient of control variable h , w_{ih} is the value of variable h for respondent i , and u_i is the error.

Study 1: United States

Data and Measures

To explore perceptions about immigrants in the United States, I designed and fielded an original survey-experimental study in March 2019. Participants were recruited using the Lucid panel that matches the American National Election Study on a number of benchmarks (Coppock and McClellan 2019). The survey, including the conjoint task, was completed by 916 respondents. The sample characteristics follow: mean age was 44.5 years, and the gender ratio was 49% male to 51% female. In terms of race/ethnicity, 70.6% of respondents self-identified as non-Hispanic whites. College education was reported by 39.3% of respondents. Finally, 38% of respondents identified as Democrats, 36% as Republicans, and 26% as Independents.

In the conjoint experiment, each respondent rated 20 profiles (presented in 10 pairs) by probability of being an immigrant using a scale from 0% to 100%.² Even though the task was formulated in terms of percentages, its goal was not to measure the true conditional probability of a profile belonging to an immigrant given a certain description. It is well established that most people have trouble calculating percentage-based quantities (Landy, Guay, and Marghetis 2018). Moreover, as discussed in the previous section, presentation of conjoint profiles in terms of multiple attributes makes calculation of true conditional probabilities practically impossible. Therefore, I simply use conjoint estimates as measures of perceptions or associative networks linking immigrants to certain attributes in the minds of respondents.

Profiles were described in terms of six attributes selected following the current literature on public attitudes toward immigration. They included age and gender (Ward 2019), race/ethnicity (Valentino, Brader, and Jardina 2013), occupational status (Hainmueller and Hiscox 2010), reliance on government benefits (Garand, Xu, and Davis 2017), and criminal record (Hartman, Newman, and Bell 2014).³ In conjoint profiles shown to respondents, I used varying attribute labels to make them more realistic (e.g., using specific occupation names rather than just “low skilled” or “high skilled”), but the analysis only contrasted dichotomized attribute values. The only exception was the race/ethnicity attribute with four randomized values that were included in the analysis this way. See Table 1 for the full list of attributes with potential values.

² When completing the conjoint experiment, 12 respondents ended up rating fewer than 20 profiles (the lowest number was 17 rated profiles for one respondent). These respondents were kept in the analysis.

³ I had to exclude some attributes used in previous studies on public attitudes toward immigration because they would allow unambiguous categorization of a profile as belonging to an immigrant. Examples include country of origin (Konitzer et al. 2019), language proficiency (Hopkins 2015), and legal status (Wright, Levy, and Citrin 2016).

Table 1. Attributes for profiles in U.S. conjoint experiment

Attribute	Values
Age	<i>Young: 25–39</i> <i>Older: 40–54</i>
Gender	Female Male
Race/ethnicity	White Black Hispanic Asian
Occupation	<i>High-skilled: Accountant, Engineer, Graphic designer, Nurse, Teacher</i> <i>Low-skilled: Cook, Day laborer, Gardener, Janitor, Waiter</i>
Government benefits	<i>No benefits: None</i> <i>Receives benefits: Food stamps, Housing assistance, Medicaid, Supplemental income</i>
Police record	<i>No record: None</i> <i>Has record: Assault, Drug possession, Drunk driving, Theft, Trespassing</i>

Note. Age values (in years) were randomly chosen from the specified intervals. Collapsed values are in italics.

Attribute values were fully and independently randomized with uniform distributions—that is, all distinct values for a specific attribute had equal probabilities of being presented.⁴ For government benefits and police record attributes, I assigned equal probabilities to “no” and “yes” categories with each specific welfare program or crime having equal chances of being presented. See Figure 1 for an example of conjoint profiles as presented to respondents. Attitudes toward immigration were measured using a three-item battery that asked respondents to assess the impact of immigrants on American economy, culture, and communities.⁵

⁴ Due to randomization, 11 respondents never saw a profile with at least one specific attribute value and were excluded from the analysis.

⁵ Economy: “Would you say immigration is generally bad or good for the U.S. economy?” Culture: “Would you say that U.S. cultural life is generally undermined or enriched by immigration?” Communities: “Does immigration make the U.S. a worse or a better place to live?” Answers were on a ten-point scale with higher values indicating pro-immigrant responses.

Pair 1 out of 10.

Please carefully review the profiles detailed below, then answer the questions.

	Person 1	Person 2
Age	27	47
Gender	Male	Female
Race/ethnicity	Asian	White
Occupation	Engineeer	Waiter
Government benefits	None	Medicaid
Police record	Drunk driving	None

Please rate the probability of being an immigrant for each of the two persons.

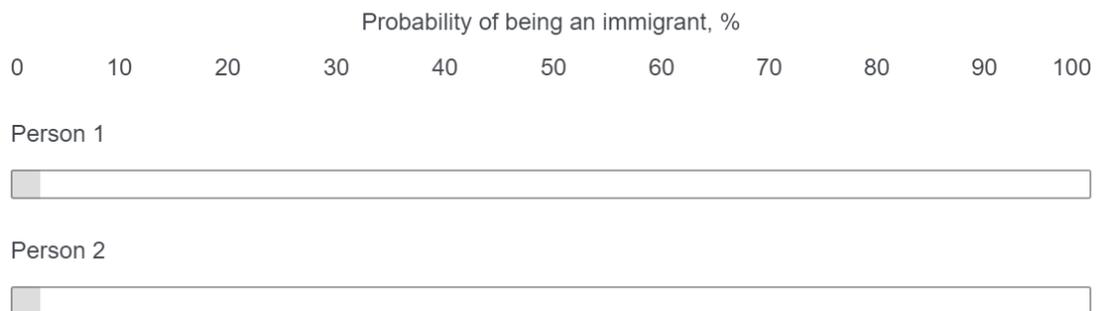


Figure 1. Sample screenshot from the U.S. conjoint task

Results

I begin by implementing the standard procedure for conjoint experiments: estimating the average marginal component effects (AMCEs) of different profile attributes on the probability of being categorized as an immigrant. Results are presented in Figure 2. Standard errors are clustered on the level of individual respondents. Estimates suggest that perceptions about immigrants among U.S. respondents are dominated by race/ethnicity. Specifically, being described as Hispanic (compared with white) increases the profile’s perceived probability of being an immigrant by 9.5

percentage points. The corresponding effect for being described as Asian is 7 percentage points. Occupational status is also a significant component of perceptions about immigrants: profiles described as having low-skilled occupations (compared with high-skilled ones) are rated 5.2 percentage points higher by probability of being an immigrant. Age, gender, being described as black, and having a police record do not have significant effects. Receiving government benefits is significant on the 95% confidence level, but its estimated effect on probability of a profile being categorized as an immigrant is less than one percentage point.

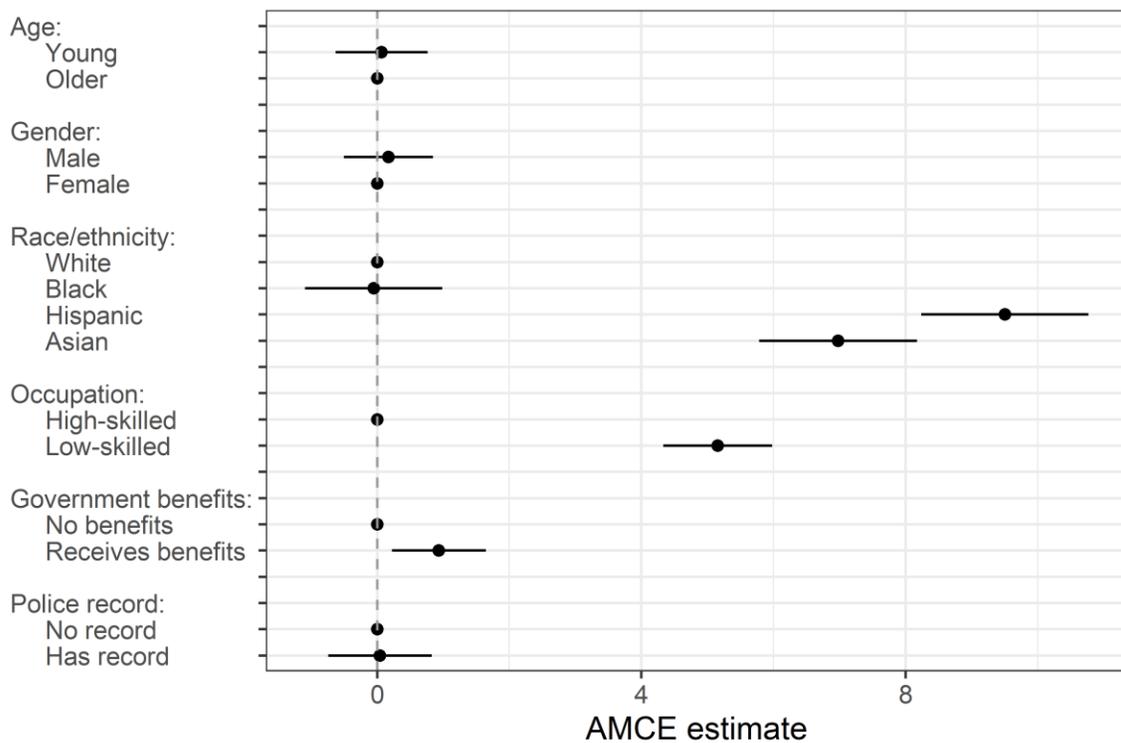


Figure 2. Conjoint results: effects of different attribute values on a profile's estimated probability of belonging to an immigrant, U.S. sample

Figure 3 presents results of the same analysis with the sample divided by partisanship (leaning independents are treated as partisans, true independents excluded). Generally, Republicans tend to see nonwhites, people on welfare, and those with criminal record as more likely to be immigrants. The differences in these effects, however, are relatively small and

directions—at least for the perceptions about race/ethnicity—are similar. A formal test suggests that perceptions about immigrants are indeed jointly different across supporters of the two major parties ($F_{8, 874} = 2.11, p = .032$), but this is a relatively weak result for an effective sample of more than 17,000 observations (conjoint profiles). In other words, Democrats and Republicans do see immigrants differently, but these differences in perceptions are small and, for the most part, concern strength rather than content of perceptions.

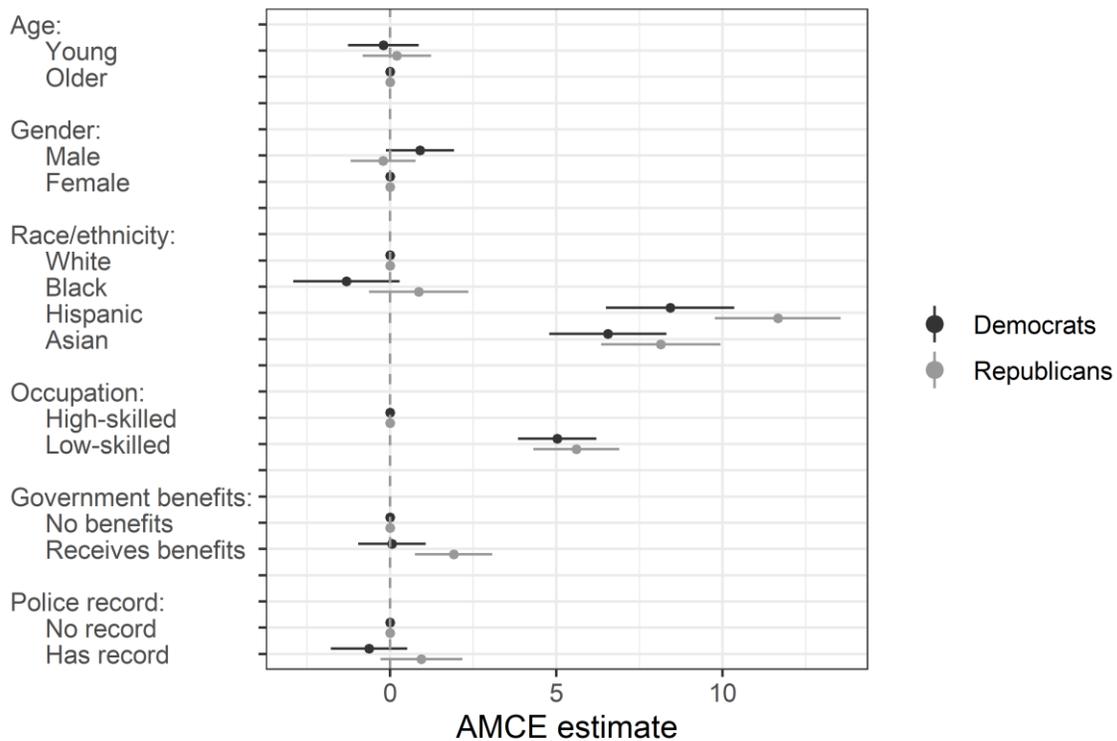


Figure 3. Conjoint results: effects of different attribute values on a profile’s estimated probability of belonging to an immigrant by party, U.S. sample

The standard conjoint analyses presented above describes the average perceptions about immigrants and reveals the central role of race/ethnicity in respondents’ categorization of people as foreign born. At the same time, it does not tell whether the perceptions about immigrants are consequential for attitudes toward immigration. This question, however, is exactly the one that can be answered with the help of individual marginal component effects (IMCEs).

I use IMCEs as measures of U.S. respondents' perceptions about immigrants to predict attitudes toward immigration.⁶ Results are presented in Figure 4. The dependent variable is recoded to the same scale as the perception variables (from 0 to 100), so that coefficients can range from approximately -1 to 1. When perceptions are measured using the conjoint method, two dimensions are consistently consequential: perceptions of immigrants as, respectively, Hispanics and those with criminal records predict negative attitudes toward immigration. The perception of immigrants as recipients of government benefits loses significance as controls are added. Interestingly, the perception of immigrants as blacks shows a positive effect on immigration attitudes in the model with controls—although the coefficient is low and only marginally significant. Perceptions about immigrants' age, gender, Asian ancestry, and occupation are not consequential on the 95% confidence level.

These findings highlight the importance of looking into individual-level perceptions rather than just describing them in the aggregate. For instance, conjoint profiles described as having a police record are not rated by respondents as more likely belonging to immigrants than to natives. At the same time, there is consequential individual-level variation on this perception dimension: respondents who associate immigrants with criminal behavior tend to express negative attitudes toward immigration.

⁶ IMCEs were successfully estimated for 905 respondents.

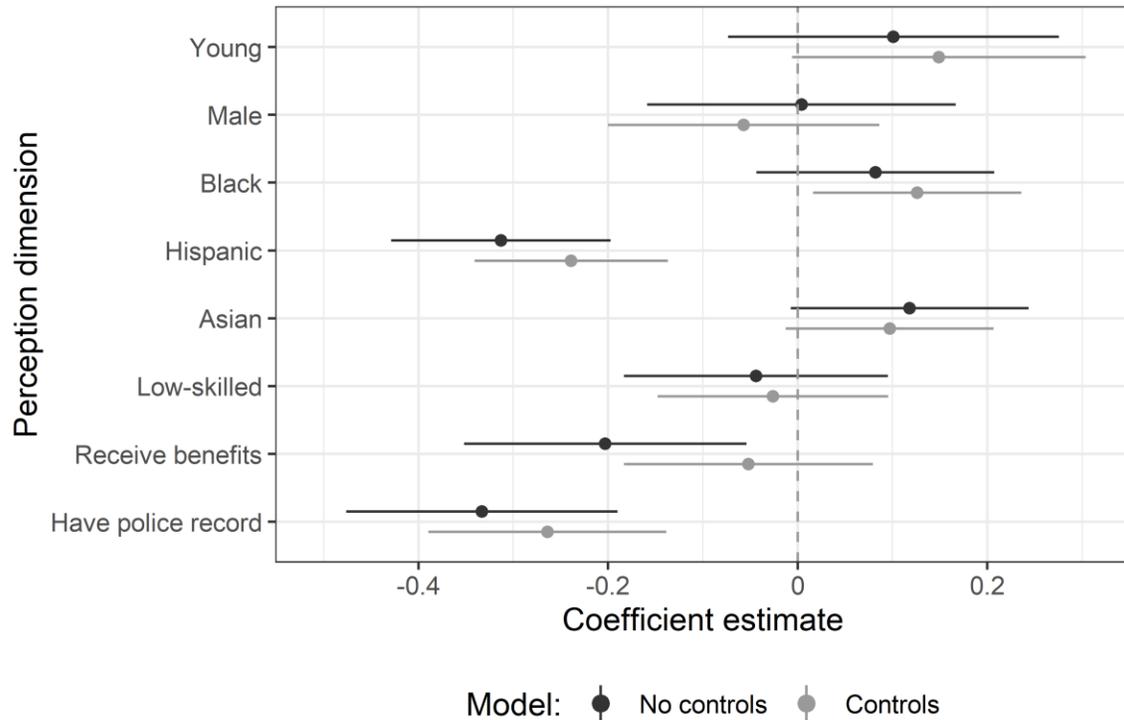


Figure 4. OLS regression results predicting attitudes toward immigration using different dimensions of perceptions about immigrants, U.S. sample
Note. Controls: respondents’ age, gender, income, race/ethnicity, education, partisanship

Study 2: Britain

Data and Measures

Study 2 was carried out in Britain in September 2019.⁷ Participants were recruited using Prolific, a crowdsourcing platform similar in many aspects to Amazon Mechanical Turk (Berinsky, Huber, and Lenz 2012), but its participants tend to be less experienced survey takers (Peer et al. 2017). The survey, including the conjoint task, was completed by 679 respondents. The sample characteristics follow: mean age was 35.4 years, and the gender ratio was 43.4% male to 56.6% female. In terms of race/ethnicity, 88.1% of respondents self-identified as white British. College

⁷ The sampling frame did not include Northern Ireland.

education was reported by 42.6% of respondents. Finally, 49% of respondents identified as ideologically left wing, 20% as right wing, and 31% as centrists.

Study 2 used the same conjoint design as Study 1. The only major difference was that instead of race/ethnicity, the experiment manipulated the religion of presented profiles. This choice was informed by the centrality of prejudice against Muslims in the anti-immigrant backlash in West European societies (Adida, Laitin, and Valfort 2016; Claassen and McLaren 2021; Thijssen et al. 2022). Also, value labels for government benefits were changed to reflect the British context. See Table 2 for the full list of attributes with potential values.⁸ Attitudes toward immigration were measured similarly as in Study 1.

Table 2. Attributes for profiles in British conjoint experiment

Attribute	Values
Age	<i>Young: 25–39</i> <i>Older: 40–54</i>
Gender	Male Female
Religion	Christian Muslim Hindu Non-religious
Occupation	<i>High-skilled:</i> Accountant, Engineer, Graphic designer, Nurse, Teacher <i>Low-skilled:</i> Cook, General labourer, Gardener, Janitor, Waiter
Government benefits	<i>No benefits:</i> None <i>Receives benefits:</i> Housing benefit, Child benefit, Unemployment benefit, Income support
Police record	<i>No record:</i> None <i>Has record:</i> Assault, Drug possession, Drunk driving, Theft, Trespassing

Note. Age values (in years) were randomly chosen from the specified intervals. Collapsed values are in italics

⁸ Due to randomization, 56 respondents never saw a profile with at least one specific attribute value and were excluded from the analysis

Results

Figure 5 presents average marginal component effects (AMCEs) of different profile attributes on the probability of being categorized as an immigrant estimated in the conjoint experiment.

Standard errors are clustered on the level of individual respondents. Overall, results obtained from the British sample very closely replicate those reported in the U.S. study. Estimates suggest that perceptions about immigrants among British respondents are dominated by religion.

Specifically, being described as Muslim (compared with Christian) increases a profile's perceived probability of being an immigrant by 15.3 percentage points. The corresponding effects for being described as Hindu and nonreligious are, respectively, 14.1 and 1.9 percentage points. Occupational status also makes up a significant component of perceptions about immigrants: profiles described as having low-skilled occupations (compared with high-skilled ones) are rated 3.1 percentage points higher by probability of being an immigrant. Age, gender, and having a police record do not have significant effects. Receiving government benefits is significant on the 95% confidence level, but its estimated effect on probability of a profile being categorized as an immigrant is only slightly more than 1 percentage point.

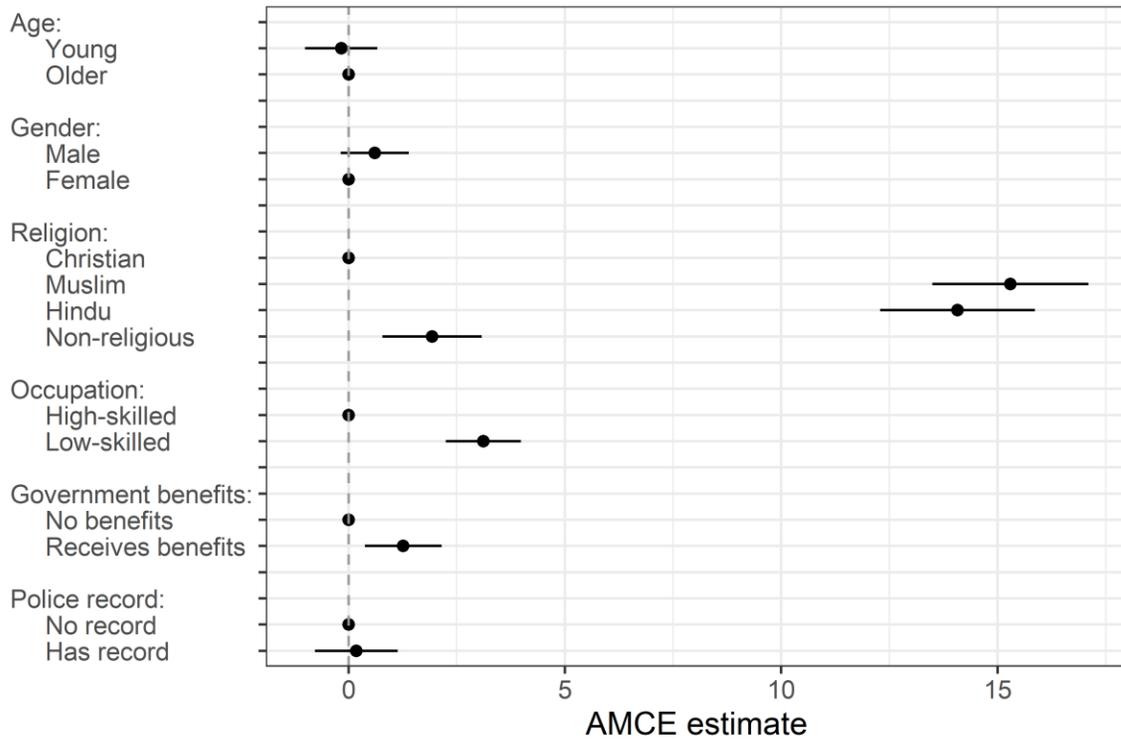


Figure 5. Conjoint results: effects of different attribute values on a profile’s estimated probability of belonging to an immigrant, British sample

I use IMCEs as measures of British respondents’ perceptions about immigrants to predict attitudes toward immigration.⁹ Results are presented in Figure 6. The dependent variable is recoded to the same scale as the perception variables (from 0 to 100), so that coefficients can range from approximately -1 to 1. Similar to the U.S. sample, the two dimensions consistently consequential for attitudes toward immigration are perceptions of immigrants as, respectively, Muslims and lawbreakers. The perception of immigrants as males and receivers of government benefits loses significance as controls are added. Perceptions about immigrants’ age, religion other than Islam, and occupation are not significant.

⁹ IMCEs were successfully estimated for 623 respondents.

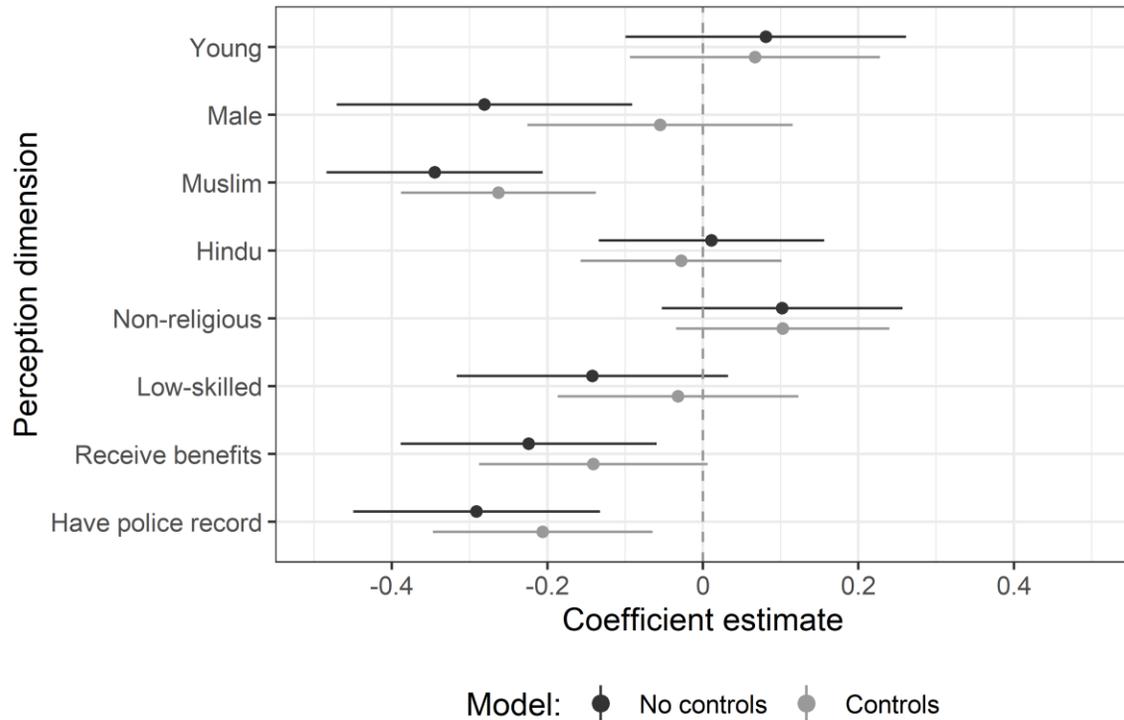


Figure 6. OLS regression results predicting attitudes toward immigration using different dimensions of perceptions about immigrants, British sample
Note. Controls: respondents’ age, gender, income, race/ethnicity, education, ideology

Discussion and Conclusion

In this paper, I have described survey-experimental studies to explore the content and consequences of beliefs about immigration in the United States and Britain. Using an original conjoint design, I have measured respondents’ perceptions about immigrants and then explored how these perceptions predict attitudes toward immigration. My results strongly suggest that immigrants’ ethnicity and religion are central for both the content of perceptions and their effects on attitudes toward immigration. When respondents are asked to estimate probabilities of being an immigrant for profiles in the conjoint experiment, they almost exclusively rely on ascriptive identities perceived as foreign. In the United States, profiles described as Hispanics and Asians are rated as much more likely to be immigrants. In Britain, the same effect is found for profiles described as Muslims and Hindus. Importantly, these results may underestimate the impact of

ethnicity and religion on guesses about people's nativity status in real-life situations. Unlike attributes that can be easily manipulated in a conjoint experiment but are not usually known in brief social interactions (such as occupational level), ethnicity and religion are often inferred from appearance.

When used as covariates in regression analysis, perceptions about immigrants' ethnicity and religion demonstrate consistently significant positive associations with negative attitudes toward immigration. These effects are independent of any other perception dimensions, such as skills or criminality, and persist even when controlled for respondents' demographics, partisanship, and ideology. In terms of magnitudes, perceptions of immigrants as, respectively, Hispanics and Muslims are related to attitudes toward immigration as strongly as perceptions concerning criminal behavior. Perceptions of immigrants as having low-skilled occupations do not predict attitudes toward immigration when measured via conjoint categorization tasks.

One important question that lies beyond the scope of this paper but can be addressed in future research concerns the origins of (mis)perceptions about immigrant populations. The two most prominent avenues in this regard are likely the role of media (Blinder and Jeannet 2018) and local context (Hopkins 2010; Newman 2013). Due to their resilience to social desirability and rationalization, measures of perceptions obtained from classification conjoint experiments, like the ones employed in this paper, can be a useful tool in such research.

Overall, findings reported in this paper have important implications for the politics of immigration as they show that both content and consequences of perceptions about immigrants are dominated by ascriptive identities, such as ethnicity and religion. The conjectures that Americans strongly associate immigration with Hispanics and that holding such an association predicts negative attitudes toward immigration have been made in the literature before, but

evidence for them was only indirect. The present paper has corroborated these hypotheses by directly measuring perceptions about immigrants, and it extends them by presenting evidence on a similar association between immigration and Muslims among Britons.

My findings largely confirm a previously reported result that skill premium in Americans' immigration preferences may mask anti-Hispanic prejudice (Newman and Malhotra 2018). I demonstrate that when measured through revealed associations rather than self-reports, perceptions of immigrants as Hispanics are consequential for attitudes toward immigration—whereas perceptions about skill are not. The same is true for immigrants' reliance on government benefits: the effect of this perception disappears after controlling for partisanship or ideology, suggesting that anti-immigration and anti-welfare attitudes likely stem from generalized ideological conservatism (Levy 2021). In other words, Americans may not inherently care about immigrants' skills, and the effects of self-reported sociotropic economic concerns can be exaggerated due to social desirability bias. A similar result regarding the primacy of social group labels in making guesses about nativity status has been obtained in Britain, thus indicating that thinking about immigration in terms of ascriptive identities is a broader phenomenon rather than one constrained to the United States.

References

- Adida, Claire L., David D. Laitin, and Marie-Anne Valfort. 2016. *Why Muslim Integration Fails in Christian-Heritage Societies*. Cambridge, MA: Harvard University Press.
- Bansak, Kirk, Jens Hainmueller, Daniel J. Hopkins, and Tepei Yamamoto. 2018. "The Number of Choice Tasks and Survey Satisficing in Conjoint Experiments." *Political Analysis* 26 (1): 112–19.

- Bansak, Kirk, Jens Hainmueller, Daniel J. Hopkins, and Teppei Yamamoto. 2021. "Beyond the Breaking Point? Survey Satisficing in Conjoint Experiments." *Political Science Research and Methods* 9 (1): 53–71.
- Berinsky, Adam J., Gregory A. Huber, and Gabriel S. Lenz. 2012. "Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk." *Political Analysis* 20 (3): 351–68.
- Blinder, Scott. 2015. "Imagined Immigration: The Impact of Different Meanings of 'Immigrants' in Public Opinion and Policy Debates in Britain." *Political Studies* 63 (1): 80–100.
- Blinder, Scott, and Anne-Marie Jeannet. 2018. "The 'Illegal' and the Skilled: Effects of Media Portrayals on Perceptions of Immigrants in Britain." *Journal of Ethnic and Migration Studies* 44 (9): 1444–62.
- Brader, Ted, Nicholas A. Valentino, and Elizabeth Suhay. 2008. "What Triggers Public Opposition to Immigration? Anxiety, Group Cues, and Immigration Threat." *American Journal of Political Science* 52 (4): 959–78.
- Citrin, Jack, and John Sides. 2008. "Immigration and the Imagined Community in Europe and the United States." *Political Studies* 56 (1): 33–56.
- Claassen, Christopher, and Lauren McLaren. 2021. "Do Threats Galvanize Authoritarians or Mobilize Nonauthoritarians? Experimental Tests from 19 European Societies." *Political Psychology* 42 (4): 677–94.
- Clayton, Katherine, Jeremy Ferwerda, and Yusaku Horiuchi. 2021. "Exposure to Immigration and Admission Preferences: Evidence from France." *Political Behavior* 43: 175–200.

- Clifford, Scott, and Jennifer Jerit. 2016. "Cheating on Political Knowledge Questions in Online Surveys: An Assessment of the Problem and Solutions." *Public Opinion Quarterly* 80 (4): 858–87.
- Coppock, Alexander, and Oliver A. McClellan. 2019. "Validating the Demographic, Political, Psychological, and Experimental Results Obtained from a New Source of Online Survey Respondents." *Research and Politics* 6 (1). <https://doi.org/10.1177/2053168018822174>
- Flores, Rene D., and Ariela Schachter. 2018. "Who Are the 'Illegals'? The Social Construction of Illegality in the United States." *American Sociological Review* 83 (5): 839–68.
- Ford, Robert, and Jonathan Mellon. 2020. "The Skills Premium and the Ethnic Premium: A Cross-national Experiment on European Attitudes to Immigrants." *Journal of Ethnic and Migration Studies* 46 (3): 512–32.
- Garand, James C., Ping Xu, and Belinda C. Davis. 2017. "Immigration Attitudes and Support for the Welfare State in the American Mass Public." *American Journal of Political Science* 61 (1): 146–62.
- Glinitzer, Konstantin, Tobias Gummer, and Markus Wagner. 2021. "Learning Facts About Migration: Politically Motivated Learning of Polarizing Information About Refugees." *Political Psychology* 42 (6): 1053–69.
- Goggin, Stephen N., John A. Henderson, and Alexander G. Theodoridis. 2020. "What Goes with Red and Blue? Mapping Partisan and Ideological Associations in the Minds of Voters." *Political Behavior* 42: 985–1013.
- Gorodzeisky, Anastasia, and Moshe Semyonov. 2020. "Perceptions and Misperceptions: Actual Size, Perceived Size and Opposition to Immigration in European Societies." *Journal of Ethnic and Migration Studies* 46 (3): 612–30.

- Hainmueller, Jens, Dominik Hangartner, and Teppei Yamamoto. 2015. "Validating Vignette and Conjoint Survey Experiments against Real-World Behavior." *Proceedings of the National Academy of Sciences of the United States of America* 112 (8): 2395–2400.
- Hainmueller, Jens, and Michael J. Hiscox. 2010. "Attitudes toward Highly Skilled and Low-skilled Immigration: Evidence from a Survey Experiment." *American Political Science Review* 104 (1): 61-84
- Hainmueller, Jens, and Daniel J. Hopkins. 2015. "The Hidden American Immigration Consensus: A Conjoint Analysis of Attitudes toward Immigrants." *American Journal of Political Science* 59 (3): 529–48.
- Hainmueller, Jens, Daniel J. Hopkins, and Teppei Yamamoto. 2014. "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." *Political Analysis* 22 (1): 1–30.
- Hartman, Todd K., Benjamin J. Newman, and C. Scott Bell. 2014. "Decoding Prejudice Toward Hispanics: Group Cues and Public Reactions to Threatening Immigrant Behavior." *Political Behavior* 36 (1): 143–66.
- Hjerm, Mikael. 2007. "Do Numbers Really Count? Group Threat Theory Revisited." *Journal of Ethnic and Migration Studies* 33 (8): 1253–75.
- Hopkins, Daniel J. 2010. "Politicized Places: Explaining Where and When Immigrants Provoke Local Opposition." *American Political Science Review* 104 (1): 40–60.
- Hopkins, Daniel J. 2015. "The Upside of Accents: Language, Inter-group Difference, and Attitudes toward Immigration." *British Journal of Political Science* 45 (3): 531–57.
- Hopkins, Daniel J., John Sides, and Jack Citrin. 2019. "The Muted Consequences of Correct Information about Immigration." *Journal of Politics* 81 (1): 315–20.

- Horiuchi, Yusaku, Zachary Markovich, and Teppei Yamamoto. 2021. "Does Conjoint Analysis Mitigate Social Desirability Bias?" *Political Analysis*. Published ahead of print.
<https://doi.org/10.1017/pan.2021.30>
- Jenke, Libby, Kirk Bansak, Jens Hainmueller, and Dominik Hangartner. 2021. "Using Eye-Tracking to Understand Decision-Making in Conjoint Experiments." *Political Analysis* 29 (1): 75–101.
- Konitzer, Tobias B., Shanto Iyengar, Nicholas A. Valentino, Stuart Soroka, and Raymond M. Duch. 2019. "Ethnocentrism versus Group-Specific Stereotyping in Immigration Opinion: Cross-national Evidence on the Distinctiveness of Immigrant Groups." *Journal of Ethnic and Migration Studies* 45 (7): 1051–74.
- Kustov, Alexander, Dillon Laaker, and Cassidy Reller. 2021. "The Stability of Immigration Attitudes: Evidence and Implications." *Journal of Politics* 83 (4): 1478–94.
- Landy, David, Brian Guay, and Tyler Marghetis. 2018. "Bias and Ignorance in Demographic Perception." *Psychonomic Bulletin & Review* 25 (5): 1606–18.
- Levy, Morris E. 2021. "Once Racialized, Now 'Immigrationized?' Explaining the Immigration-Welfare Link in American Public Opinion." *Journal of Politics* 83 (4): 1275–91.
- Levy, Morris, and Matthew Wright. 2020. *Immigration and the American Ethos*. Cambridge: Cambridge University Press.
- Lippmann, Walter. 1922. *Public Opinion*. New York: Macmillan.
- Lodge, Milton, and Charles S. Taber. 2013. *The Rationalizing Voter*. New York: Cambridge University Press.

- Lutz, Philipp, and Marco Bitschnau. 2022. "Misperceptions about Immigration: Reviewing Their Nature, Motivations and Determinants." *British Journal of Political Science*. Published ahead of print. <https://doi.org/10.1017/S0007123422000084>
- Nederhof, Anton J. 1985. "Methods of Coping with Social Desirability Bias: A Review." *European Journal of Social Psychology* 15 (3): 263–80.
- Newman, Benjamin J. 2013. "Acculturating Contexts and Anglo Opposition to Immigration in the United States." *American Journal of Political Science* 57 (2): 374–90.
- Newman, Benjamin J., and Neil Malhotra. 2018. "Economic Reasoning with a Racial Hue: Is the Immigration Consensus Purely Race Neutral?" *Journal of Politics* 81 (1): 153–66.
- Nichols, Austin Lee, and Jon K. Maner. 2008. "The Good-Subject Effect: Investigating Participant Demand Characteristics." *Journal of General Psychology* 135 (2): 151–66.
- Ostfeld, Mara. 2017. "The Backyard Politics of Attitudes Toward Immigration." *Political Psychology* 38 (1): 21–37.
- Peer, Eyal, Laura Brandimarte, Sonam Samat, and Alessandro Acquisti. 2017. "Beyond the Turk: Alternative Platforms for Crowdsourcing Behavioral Research." *Journal of Experimental Social Psychology* 70: 153–63.
- Petersen, Michael Bang. 2012. "Social Welfare as Small-Scale Help: Evolutionary Psychology and the Deservingness Heuristic." *American Journal of Political Science* 56 (1): 1–16
- Schachter, Ariela, Rene D. Flores, and Neda Maghbouleh. 2021. "Ancestry, Color, or Culture? How Whites Racially Classify Others in the U.S." *American Journal of Sociology* 126 (5): 1220–63.
- Schneider, Anne, and Helen Ingram. 1993. "Social Construction of Target Populations: Implications for Politics and Policy." *American Political Science Review* 87 (2): 334–47.

- Thijssen, Lex, Frank van Tubergen, Marcel Coenders, Robert Hellpap, and Suzanne Jak. 2022. “Discrimination of Black and Muslim Minority Groups in Western Societies: Evidence From a Meta-Analysis of Field Experiments.” *International Migration Review* 56 (3): 843–80.
- Valentino, Nicholas A., Ted Brader, and Ashley E. Jardina. 2013. “Immigration Opposition Among U.S. Whites: General Ethnocentrism or Media Priming of Attitudes About Latinos?” *Political Psychology* 34 (2): 149–66.
- Valentino, Nicholas A., Stuart N. Soroka, Shanto Iyengar, Toril Aalberg, Raymond Duch, Marta Fraile, Kyu S. Hahn, Kasper M. Hansen, Allison Harell, Marc Helbling, Simon D. Jackman, and Tetsuro Kobayashi. 2019. “Economic and Cultural Drivers of Immigrant Support Worldwide.” *British Journal of Political Science* 49 (4): 1201–26.
- Ward, Dalston G. 2019. “Public Attitudes toward Young Immigrant Men.” *American Political Science Review* 113 (1): 264–69.
- Wright, Matthew, Morris Levy, and Jack Citrin. 2016. “Public Attitudes Toward Immigration Policy Across the Legal/Illegal Divide: The Role of Categorical and Attribute-Based Decision-Making.” *Political Behavior* 38: 229–53.
- Zhirkov, Kirill. 2021. “Who Are ‘the Immigrants’? Beliefs About Immigrant Populations and Anti-Immigration Attitudes in the United States and Britain.” *Social Science Quarterly* 102 (1): 228–37.
- Zhirkov, Kirill. 2022. “Estimating and Using Individual Marginal Component Effects from Conjoint Experiments.” *Political Analysis* 30 (2): 236–49.