How perceptions of immigrants trigger feelings of economic and cultural threats in two welfare states

Sebastian Fietkau
Department of Political Science, Johannes Gutenberg University
Mainz, Mainz, Germany

Kasper M Hansen
Department of Political Science, University of Copenhagen,
Copenhagen, Denmark

Abstract
Better understanding of attitudes toward immigration is crucial to avoid misperception of immigration in the public debate. Through two identical online survey experiments applying morphed faces of non-Western immigrants and textual vignettes, the authors manipulate complexion, education, family background, and gender in Denmark and Germany. For women, an additional split in which half of the women wore a headscarf is performed. In both countries, highly skilled immigrants are preferred to low-skilled immigrants. Danes are more skeptical toward non-Western immigration than Germans. Essentially, less educated Danes are very critical of accepting non-Western immigrants in their country. It is suggested that this difference is driven by a large welfare state in Denmark compared to Germany, suggesting a stronger fear in welfare societies that immigrants will exploit welfare benefits.

Corresponding author:
Kasper M Hansen, Department of Political Science, University of Copenhagen, Øster Farimagsgade 5, Copenhagen K DK-1353, Denmark.
Email: kmh@ifs.ku.dk; www.kaspermhansen.eu
@kaspermhansen

Immigration is increasing in developed societies. Former somewhat liberal immigration policies have caused this increase, particularly in Western European countries. In contrast, various societal actors are skeptical of immigration. Freeman (1995) describes this discrepancy as the Opinion-Policy Gap, which posits that restrictive public opinion often opposes the immigration policies of liberal democracies. Therefore, understanding the attitudes of natives toward immigrants is one of the keys in determining and securing societal peace.

Researchers frequently propose two lines of reasoning. The first highlights the economic perspective of immigration, such as whether immigrants can contribute economically to the country and whether they threaten the job security of natives or burden the welfare state (Bevelander and Otterbeck, 2010; Sherif and Sherif, 1953). The other line of reasoning points to the cultural-symbolic threat of immigration: are immigrants perceived as a threat to the nation's religion, ethnicity, identity, and culture (Kinder and Sears, 1981; Sniderman et al., 2004)? We test these two arguments across two different countries to unfold the extent to which they are embedded in a specific country's institutional setup, that is the size of its welfare state. In this case, the design applies a rare example of an identical large-scale survey experiment conducted in Germany and Denmark to test the robustness of classical theories and allow a strong country comparison.

Although Germany and Denmark are somewhat alike concerning their characteristics as immigration countries, they differ in public support for parties taking rejectionist stances on immigration. Therefore, we test whether differences exist between Dane's and German's attitudes toward immigrants and whether the respective size of the welfare state in the two countries can help to explain any identified differences.

Bearing in mind the special characteristics of immigration as a sensitive topic that is highly vulnerable to social desirability bias, we use an implicit method—a morphing experiment combined with textual vignettes—to avoid social desirability biases (Bailenson et al., 2008; Wallander, 2009).

Our findings suggest that a larger universal welfare state fuels anti-immigrant attitudes, as the threat that immigrants will exploit welfare benefits becomes a critical concern. The least educated respondents are most inclined to express this concern.

Theory: Economic versus cultural-symbolic explanations

In immigration research, an individual's attitudes toward immigration, immigrants in general, immigrant groups, or individual immigrants often appear as a black box. The social sciences have addressed this issue intensively in recent decades with no final resolution. Most results indicate, however, that economic explanations or self-interest, on the one hand, and noneconomic explanations or questions of identity, on the other hand, play a crucial role to varying degrees.

For economic explanations, realistic group conflict theory establishes the framework. Based on the findings by Sherif (1966) and Sherif and Sherif (1953),

the theory explains the interactions of groups along economic, political, and social interests. Conflicts about rare goods lead to negative out-group attitudes toward newcomers, and long-term competition causes stereotyping and prejudice among citizens. Economic issues concern the conflict between personal economic and financial status, job opportunities, additional tax burdens, macroeconomic development, or political power (Bevelander and Otterbeck, 2010; Ceobanu and Escandell, 2010; Chandler and Tsai, 2001; Fetzer, 2000; Hopkins, 2010; Larsen et al., 2009; Wilkes et al., 2008). On the individual level, in the US context, Scheve and Slaughter (2001) demonstrate that less qualified workers show somewhat negative attitudes toward immigrants if they fear competing with them for the same workplaces. Hainmueller and Hiscox (2007) present comparable results with data from the European Social Survey. Among these researchers, many rely on education as a predictor, arguing that lower education leads to stronger negative attitudes toward immigrants (e.g. Chandler and Tsai, 2001), whereas more highly educated respondents give a more positive evaluation of immigrants (e.g. Mayda, 2006). On a macro level, a country's poor economic performance provokes negative opinions of newcomers (Citrin et al., 1997; Quillian, 1995). Again, Sniderman et al. (2004) state that both the macro- and microeconomic level contribute equally to opinion formation.

Ceobanu and Escandell (2010: 323) argue in favor of another branch of theory: 'Although economic explanations are featured rather prominently in the literature, cultural-symbolic factors such as identities and ideologies are more consequential motivations'. They base their approach on the symbolic politics literature of Kinder and Sears (1981) and the theory of social identity by Tajfel (1982). The individual assignment to in-groups 'increases perceptions of group differences and causes in-group members to favor their group with higher rewards while penalizing out-groups' (Chandler and Tsai, 2001: 179). Their approach relies on group categorization and a need for positive differentiation vis-à-vis minorities as the main explanatory mechanisms. Possible conflicts emerge primarily along cultural, ethnic, and religious differences (Citrin et al., 1997; Harell et al., 2012; Larsen et al., 2009). Sniderman et al. (2004: 36) highlight three factors that conditionally strengthen attitudes toward immigrants: first, how easily immigrants can be distinguished in everyday life; second, the salience of immigration topics in public; and third, the extent to which the migrant group is perceived as a group that is clearly distinguishable from the native and other migrant groups. Dustmann and Preston (2007) explain anti-immigrant attitudes in the UK through racial and cultural prejudice, though only for populations that are ethnically different. Researchers frequently investigate Muslim immigrants in Western societies with regard to religious differences combined with cultural proximity. Although Creighton and Jamal (2012) are unable to show that opposition to Muslim immigrants is stronger than opposition to Christians, they find that expressed rejection of Muslims is more open.

Different objects of investigation may cause the broad range in theoretical and empirical results. First, researchers must differentiate between attitudes toward

immigrants and attitudes toward the phenomenon of immigration. As Ceobanu and Escandell (2010: 313) underline, this is particularly crucial for the validity and quality of results. 'The two forms of attitudes may be intermingling in rather complex ways... or, alternatively a connection between the two may be absent' (Ceobanu and Escandell, 2010: 313). Political elites and the media often have used the phenomenon of immigration in contexts of abstract economic issues such as shortages of skills or global mobility. Some people link immigrants to ideas of distinguishable foreigners who come to live and work in another country. Additionally, the term 'immigrants' requires a more precise differentiation. One may identify larger or smaller subsets here: individual immigrants; groups of immigrants differing in ethnic, national, religious, or other features; and all immigrant groups en bloc. Research often focuses on immigrants as an abstract term that does not consider the diversity of an immigrant population from different countries. Whereas analytical models of stereotypes and prejudices focus mostly on migrant groups, personal contact with individuals can alter evaluation standards (Iyengar et al., 2013: 644).

Combining the theoretical background of economic and noneconomic explanations with methodological considerations of a more precise definition of the evaluation object, Aalberg et al. (2012) and Harrell et al. (2012) are some of the first to bring these aspects together. A survey featuring online experiments that manipulate specific biographical and visual attributes examines Norwegians' evaluation of an individual migrant. Following their results, 'The effects of cultural threat are clearly secondary to economic considerations' (Aalberg et al., 2012: 107). Further, male respondents are more likely to reject immigrants with a darker skin color than female respondents. Of distinct importance is the author's conclusion that although Norwegians generally adopt a somewhat negative position toward open migration, they are still willing to admit individual immigrants (Aalberg et al., 2012: 111). Caused by a so-called person-positivity bias, the opinion of clearly identifiable faces and life stories is much more affirmative. For the German context, Fietkau and Faas (2013) conduct a similar vignette experiment including facial morphing. Although they do not find negative effects for skin color, they do observe a negative influence of Muslim headscarves. Similarly, Helbling and Kriesi (2014) show that Swiss respondents react differently to low-skilled immigrants, depending on the interviewee's income, education, and region of origin. Turper et al. (2015) conclude that Americans and Dutch citizens alike prefer highly skilled immigrants over their unskilled counterparts.

Political contexts of immigration in Denmark and Germany

In recent decades, both Denmark and Germany have become two of the most popular immigration countries. For Germany, the first greater wave of immigration started in 1955, when the economy suffered from a shortage of labor and several bilateral agreements were signed for recruiting so-called *Gastarbeiter*.[1] Denmark had its first *gæstearbejdere* in the late 1960s, mainly from Turkey, Iraq,

and the former Yugoslavia. Although both countries imposed a freeze on immigration during the economic recession in the 1970s, they continued to receive a large number of immigrants due to family reunification, refugees, and further economic migration. In 2015, 8.7% of the German population were immigrants from non-Western countries, compared to Denmark with 5.6% of the population. Germany had relatively many non-Western immigrants, but, for example, Spain had 9.5%, and Sweden had 11.0%, with the European average being 7.4% (United Nations, 2015). In sum, both countries share not only a similar experience in immigration developments but also similar challenges to their immigration and integration policies.

Although sharing comparable immigration experiences, Danes and Germans show substantial differences in supporting parties with immigrant-critical positions as their main issue. In the 2015 parliamentary elections, the *Dansk Folkeparti* (DF, Danish People's Party) received 21.1% of the votes, an increase of 8.8 points compared to the previous election. The DF has since supported the liberal minority government led by Lars Løkke Rasmussen, notably shaping the country's immigration laws. For Germany, no right-wing party has entered the Bundestag to date due to a 5% electoral threshold. In the 2013 federal election, the *Alternative für Deutschland* (AfD, Alternative for Germany) won only 4.7% of the votes. After several electoral successes in recent regional and local elections, the AfD has gained strength; however, it is far behind the results of the DF in Denmark. Since 2001, Danes have viewed immigration as a central concern. For Germans, the issue has risen rapidly to become the most important topic due to its high salience in media and politics from 2011 onward; see Online appendix for how issue saliency has evolved over time.

The case selection for a comparative study of attitudes toward migrants between Denmark and Germany is, on the one hand, due to their geographical proximity, both countries are closely linked culturally and, as EU members, on a similar economic level. Moreover, and especially important here, their migration histories have followed similar paths since the mid-20th century. Additionally, at present, the proportions of migrants are at similar levels, being above the European mean for classification as immigration countries. On the other hand, although in Germany right-wing parties do approach the threshold of 5% in federal elections, the DF—having immigration as one of its main topics—has consistently polled more than 10% in elections to the *Folketinget* in the last decade and received 21.1% of the votes in the 2015 election. Thus, we expect to find these differences between the two countries on the macro level as well as on the individual level.

Hypotheses: Four theses

Bearing in mind the theoretical and contextual background, we develop four theses outlining the theoretical expectations. First, we focus on economic explanations. Aalberg et al. (2012) summarize that job skills—as signaled by the migrants' occupation and education—are the most important factors. Natives have an interest

in attracting well-educated and highly skilled labor forces to strengthen their coun-try's economy (Hainmueller and Hiscox, 2010). Also, respondents may fear that low-skilled migrants will exploit their country's welfare state (Facchini and Mayda, 2009; Hanson et al., 2005; Helbling and Kriesi, 2014; Hjorth, 2016). Various con-tributions in political economy have consistently tested and confirmed this argu-ment (Borjas, 1999; Freeman, 1986; Nannestad, 2007).

At this point, the country comparison between Denmark and Germany leads to different expectations. Esping-Andersen (1990) classifies both states in different welfare models. Denmark belongs to the group of the Nordic social democratic type, promoting equality of citizens with high redistributive and universal benefits. Germany is part of the conservative-corporatist group in Europe, with a moderate level of welfare support. Regarding the size of the welfare state, measured as the total government expenditure per capita, Denmark spent $23,237 per capita in 2010, whereas Germany spent only $17,919 (Bengtsson et al., 2014: 14). While Germany was proceeding with further major reforms in the social system and labor market (*Agenda 2010*), relative economic decline and individualization have affected the citizens' support for social democratic welfare states. 'The pres-sures have. . . been more specific and focused on the redrawing of the community of legitimate receivers of welfare state benefits to place 'unwanted' migrants in the more marginal position' (Geddes, 2003: 160). The authors highlight that this has been most noticeable in Denmark.

> *H1a:* Highly skilled immigrants are preferred over low-skilled immigrants. This effect
> will be stronger for Danes.

The next step also includes the respondent's educational background. Classical labor competition theory—the low-skilled (highly skilled) prefer the highly skilled (low-skilled)—mostly reaches somewhat mixed results (Dancygier and Donnelly, 2013; Helbling and Kriesi, 2014; Mayda, 2006; Scheve and Slaughter, 2001). We combine this labor competition approach with another branch of theory: elec-toral research that argues in favor of sociotropic behavior (Kinder and Kiewiet, 1981). Voters tend to care less about personal utility than social utility. For our study, this would mean that respondents view the positive influence of immi-grants on the macroeconomy as being more valuable than the negative effects on their job situation. Also, we suggest that the socialization of higher education, which promotes tolerance and cosmopolitanism (Bennett et al., 1979; Bourdieu, 1984), brings about more positive attitude toward immigrants with visual distinguishing features. Due to the complexity of the relationship between immigration and the economy, in addition to a bias toward populism and simplification in politics and the media, this tendency will be stronger for highly educated respondents. That is, highly educated respondents will follow the sociotropic behavior and be positive to the highly skilled immigrant, even though the classic labor competition theory would suggest that they would be more positive toward the low-skilled immigrants. As such, the sociotropic

argument dominates the labor competition argument, but only among the highly skilled respondents.

H1b: Highly educated respondents prefer highly skilled immigrants to low-skilled immigrants. For low-educated respondents, the immigrant's skill level will have a smaller effect.

Second, following noneconomic arguments, a person who stands out from the main population will be more negatively evaluated. As Sniderman et al. (2004) observes, this effect becomes stronger when salience of certain topics is greater. Because of 9/11 and more recent terrorist attacks, and because Muslims are conspicuous owing to their appearance, Europeans may harbor more negative attitudes toward them as the largest non-Western immigrant group. Furthermore, the authors prove that how a migrant is distinguished in everyday life affects the attitude of native citizens toward them. A headscarf, as worn by some Muslim women, can be a clear recognition feature. Also, public debates over the banning of headscarves have been a source of constant debate among politicians, the public, and in the media since the 1990s. The attribution to a certain ethnic group by a person's skin color can be determining as well. Aalberg et al. (2012) find evidence in Norway for a greater rejection if immigrants show Afrocentric features, mainly darker skin color and hair.

Again, differences between Denmark and Germany will be expected, with the latter having stronger negative attitudes toward migrants with visually distinguishing features—foremost toward Muslims with headscarves. First, 'the way the state deals with religious matters affects the way (new) religious groups are accommodated and treated' (Helbling, 2014: 245). Studies show that the more a country separates church and state, the more negative attitudes exist (Dolezal et al., 2010; Grim and Finke, 2006). Danes, who have a fully established *Folkekirken* (People's Church), should be less negative toward new religions than Germans, who have two partially established churches, simply because Danes should feel less challenged by a small religious minority because the Christian majority is protected, funded, and upheld by the state church. Second, the welfare state's classification by Esping-Andersen (1990) has more far-reaching consequences than monetary benefits. That the universal social democratic welfare state promotes 'an equality of the highest standards' (Esping-Andersen, 1990: 168) should result in more tolerance among Danes toward migrants when compared to a more insurance-based system such as that of Germany—even when immigrants are visually distinguishable. Third, the public debate over banning headscarves has resulted in a somewhat moderate level of regulation in both countries, though with different impacts on people's everyday lives. Berghahn and Rostock (2009: 468) argue that although in Germany the ban is somewhat limited, it has a much greater symbolic prohibiting effect in society. In contrast, Hadj-Abdou et al. (2011) find that in Denmark accommodative policies and liberal practices have remained despite populist contentions. This is not at least due to the 'strong notion of individual rights,

which is deeply ingrained in Danish democracy and political culture' (Hadj-Abdou et al., 2011: 142).

> *H2a:* Immigrants without visually distinguishing features such as skin color or a headscarf are preferred over immigrants with visually distinguishing features. This effect will be stronger for Germans.

Regarding *H1b*, we assume sociotropic behavior also for noneconomic arguments. Although the respondents may have personal apprehensions or reservations against migrants with visually distinguishing features, they will tolerate this if the migrant is highly skilled and possibly contributing to the national economy. Given the noted complex macroeconomic consideration about the profits and losses of migration combined with a tendency for populism and simplification, we expect to observe this effect primarily for highly educated respondents.

> *H2b:* Highly educated respondents prefer highly skilled immigrants with visually distinguishing features to low-skilled immigrants with visually distinguishing features. For low-educated respondents, the immigrant's skill level will have a smaller effect.

Operationalization and method: Comparative morphing survey experiment

The measurement of attitudes toward immigrants confronts two central obstacles: First, from a methodological perspective, attitudes toward sensitive issues such as immigrants and immigration are highly vulnerable to social desirability bias. Respondents tend not to express their true opinion but, rather, a view that they think is expected by most of society and what is expected to be the norms of society. Second, these opinions are somewhat unstable and often short-term reactions to the agenda setting of the media or politics (see the Online appendix for issue saliency). To confront these two methodological points, we apply a large-scale representative online survey to measure attitudes toward immigrants in both countries. Embedded in this survey, we include a morphing experiment with visual manipulation and textual vignette elements. This innovative method goes beyond direct and explicit poll questions and accommodates the specific characteristics of attitude research (Bailenson et al., 2008; Martens et al., 2010). Sensitive topics such as immigration stand in a state of tension between stereotypes, prejudice, and political correctness. Self-reported replies to a large extent are confronted with a response bias caused by social desirability (Berinsky, 2004; Kam, 2007; Kuklinski et al., 1997; Stocké, 2004). Not only does the morphing experiment provide more valid and additional information than established methods, but the results are also generally superior regarding precision and forecast reliability for the actual behavior of respondents (Maddox and Gray, 2002; Ronquillo et al., 2007).

The data for this article stem from two studies, one at the Department of Political Science at the University of Copenhagen, Denmark, and the other at the Mannheim Center for European Social Research at the University of Mannheim, Germany. They were collected in August 2012 and January 2013, respectively. YouGov conducted the field work in both countries. The samples in both countries were quota sampled in YouGov's very large online panels to secure representativeness regarding background characteristics (e.g. gender, region, age, and latest vote choice).

Toward the middle of the study, after replying to several classic survey items, each respondent was assigned two different fictional immigrants. These immigrants are presented with a face picture and some biographical information, differing in name, gender, country of origin, education, former occupations, and family status. In some cases, the skin color was morphed somewhat brighter, in other cases, somewhat darker. Whereas the first migrant was randomly assigned, the second biography always maintained the same gender, skin color, education, and family status as the first but never the same country of origin. After studying the first immigrant's details, the respondent was asked whether the displayed person should obtain a work permit and, later, whether the person should be granted the country's citizenship. The procedure was then repeated with the second immigrant.[2] For this study, only immigrants coming from Kuwait were included because this country of origin was the only country that was part of both surveys. Kuwait was chosen not to bear a connotation of the specific refugee groups and present conflicts in other Middle Eastern countries. That is, the experiment presented here does not vary the nationality of the migrant because the person comes from Kuwait in all treatments. This means that we have a total of 24 treatments. This is based on six pictures (in which gender, scarf, and skin complexion are manipulated) and two different text elements in which the migrant either brings his or her family (husband/wife and three children) or not (not married and no children) and two different text elements highlighting either being highly skilled or low-skilled (engineer/programmer versus landscaping/construction), that is $6 \times 2 \times 2 = 24$ treatments. Figure 1 shows the manipulated example immigrants included in the experiment. The sample size amounts to approximately 2700 for Denmark and 1800 for Germany.

All independent variables for the analysis taken from the project's dataset were coded as binary. As the dependent variable, we created an index for attitudes toward immigrants ranging from 0 to 1 from the two questions following the picture of the immigrant regarding whether the immigrant should have a work permit and citizenship.[3] The independent variables follow the logic of the hypotheses. The status of the immigrant (*H1a*) was operationalized as high if she or he had a university degree and respective work experience or as low if no university degree was obtained. The variables concerning the natives were taken from the demographic information provided by the respondents; among others, whether they have obtained a university degree (*H1b* and *H2b*). Skin color was one of the manipulations for visually distinguishing features (*H2a*). The person's face could

Figure 1. Male and female Kuwaiti migrant with skin color and headscarf manipulation.

be morphed to be either more Afrocentric or more Eurocentric. For the subset of female immigrants, headscarves were introduced as another visually distinguishing feature (*H2a*). As control variables, the immigrant's gender and family status were included in addition to the respondent's gender, age, nationality, and general attitudes toward immigrants, as taken from another survey item. Prior experiments have shown that respondents tend to give a better evaluation to the first person shown (Aalberg et al., 2012; Fietkau and Faas, 2013). Therefore, a dummy considered whether the immigrant appeared first in the survey. The Online appendix provides an overview of the variables and descriptive statistics. We rely on OLS regression models. We analyze the Danish and German samples both separately and combined, and derive predicted probabilities for the respective hypothesis.

Analysis and results: Differences across Denmark and Germany

We start by simply comparing the attitudes toward immigrants across the two countries (Figure 2). Concerning whether their country receives too many immigrants, whether immigrants have a favorable effect on the country, and whether
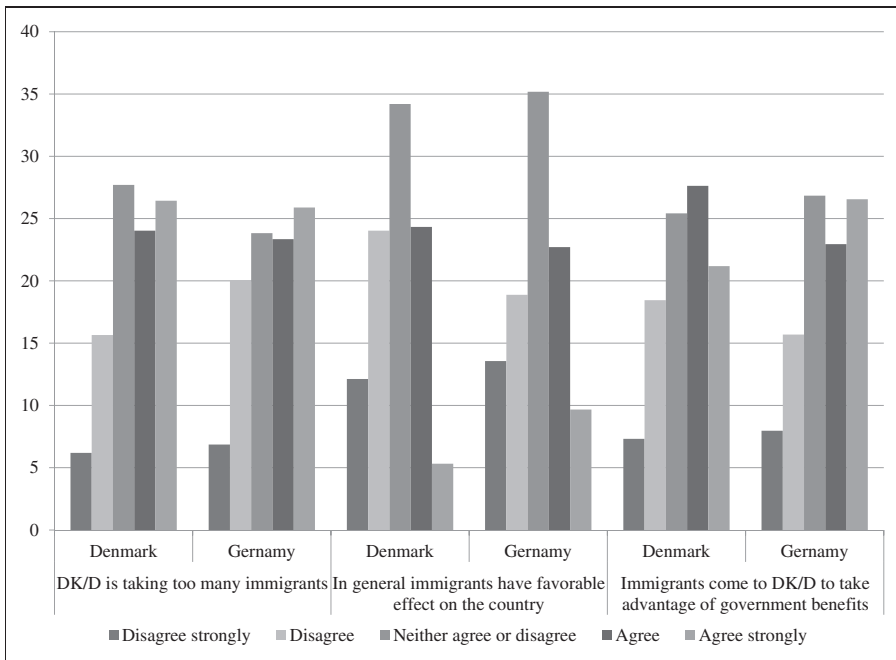
Figure 2. Explicit survey items for measuring attitudes toward migrants in percentages.
Note: N for Denmark 2588, 2667, and 2667; N for Germany 1649, 1748, and 1721. Don't know excluded. The means (measured 1 to 5) for Denmark are 3.5*, 2.9, and 3.4 and for Germany are 3.4*, 3.0,*** and 3.4.** Statistically significant differences between means ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

immigrants come to the country to take advantage of government benefits, Danes and Germans show relatively similar attitudes.

However, on average, we observe Danes are significantly more skeptical toward immigrants than Germans, even though the actual mean difference between the two countries' respondents on all three items is small.

As hypothesized above, we expected that the immigrants' education and qualifications are a strong predictor of a respondent's attitude. That is, we expected that the respondents would be more willing to accept immigrants with strong rather than weak educational qualifications, because citizens view newcomers with strong educational qualifications to make a more direct contribution to the national economy and society in general.

Table 1 presents the first results from the survey experiment. We simply regress the experiment's various treatments on the respondent's attitude toward the shown immigrant. The attitude is an index ranging from 0 to 1 from the two questions following the picture of the immigrant, that is should the immigrant have a work permit and should the immigrant have citizenship? Both questions had three options: 'approve', 'reject', and 'can't say' ('can't say/don't know' excluded). See

Table 1. Attitude toward immigration (0–1 index), two-way interaction.

	Denmark	Germany	Denmark and Germany	Denmark and Germany with interaction
High education (ref. low edu.)	0.26***	0.16***	0.22***	0.16***
	(0.02)	(0.02)	(0.01)	(0.02)
Dark skin (ref. brighter skin)	−0.02	−0.00	−0.02	−0.02
	(0.02)	(0.02)	(0.01)	(0.01)
Headscarf (ref. no scarf)	−0.04	−0.08**	−0.06***	−0.06***
	(0.02)	(0.03)	(0.02)	(0.02)
Female (ref. male)	−0.02	−0.03	−0.02	−0.02
	(0.02)	(0.03)	(0.02)	(0.02)
Wanting to bring family (ref. no family)	−0.02	−0.03	−0.02	−0.02
	(0.02)	(0.02)	(0.01)	(0.01)
First immigrant shown in experiment	0.10***	0.07***	0.09***	0.09***
	(0.02)	(0.02)	(0.01)	(0.01)
Denmark (ref. Germany)			−0.08***	−0.14***
			(0.01)	(0.02)
Education * Denmark (interaction)				0.11***
				(0.03)
Constant	0.42***	0.58***	0.53***	0.57***
	(0.02)	(0.03)	(0.02)	(0.02)
R^2	0.09	0.04	0.07	0.08
N	2719	1764	4483	4483

OLS regressions, Unstandardized coefficients. (Standard errors are clustered at the individual level). *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

also Note 2 for the full phrasing of the items used for the dependent variable. The various treatment (independent) variables are all dummy variables coded as 0 or 1.

The first two columns show the results for Denmark and Germany separately. As a group, Danes and Germans preferred immigrants with a strong educational background over less educated immigrants. Furthermore, we observe that the effect is stronger in Denmark than in Germany, which is confirmed not only by the positive interaction between immigrants' education and the respondents' nationality in the combined model with the interaction (column three), but also simply by comparing the coefficients for education in the first two models. This finding confirms hypothesis 1a, which states that highly skilled immigrants are preferred over less-skilled immigrants and that the larger the welfare state is (as is the case for Denmark compared to Germany), the more protectionist the citizens become, given that citizens are inclined to believe that immigration will threaten the sustainability of the welfare state. Because an interpretation of the interaction effects
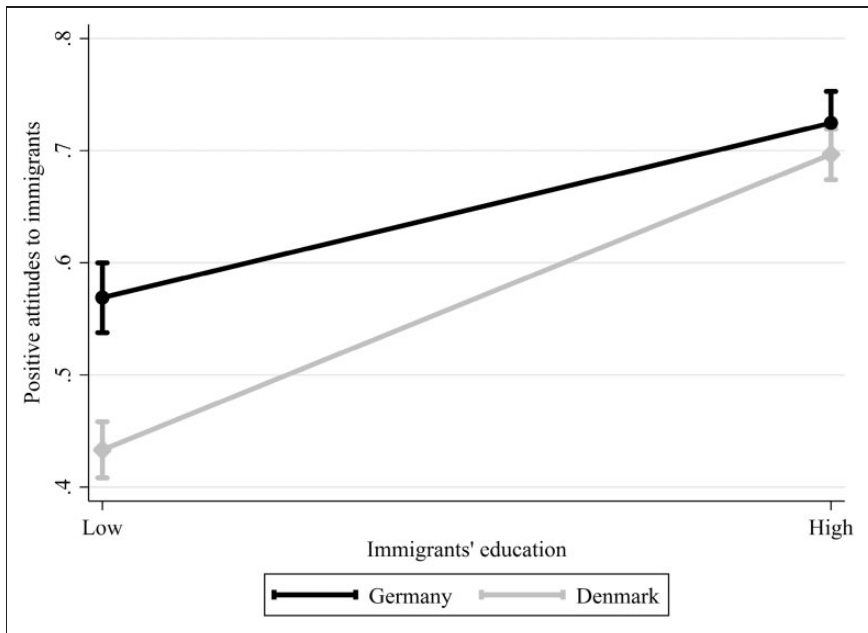
Figure 3. Attitudes to low- and high-skilled immigrants (*H1a*). Predicted probabilities.

is difficult, we also present the interaction from the final model (column four) in Table 1 with the predicted probabilities in Figure 3.

In Figure 3, we observe that a stronger skepticism toward less educated immigrants in Denmark (and weaker skepticism in Germany) especially drives the difference between Denmark and Germany, whereas there is no statistically significant difference between Danes' and Germans' attitude toward immigration regarding highly educated immigrants. This difference between Danes and Germans also makes sense because less educated immigrants would be more inclined to exploit various welfare state services compared to highly educated immigrants. Additionally, as the welfare state increases, this fear becomes more relevant.

Table 1 also suggests that the respondents are more positive toward the first shown immigrant compared to the second. This finding could indicate that both Danes and Germans are more positive toward the first 'arriving' immigrant but become more skeptical as more immigrants 'arrive'. We control for this effect so that it does not contaminate our main finding. Table 1 also shows that, if the immigrant is wearing a headscarf, Germans are consequently less inclined to give that person a work permit and citizenship. However, we find no effect for Danes (we return to this issue below). There is no effect of skin color in either Denmark or Germany, regardless of whether the immigrants are bringing a family or the immigrant's gender.

To verify our initial findings, we also include a set of respondent characteristics as control variables in the first column in Table 2. As shown in model 1, the initial

Table 2. Attitude toward immigration (0–1 index), three-way interaction.

	Denmark and Germany with SES	Denmark and Germany with education interaction and SES	Denmark and Germany with headscarf interaction and SES	Denmark and Germany with skin color interaction and SES
High education (ref. low edu.)	0.21***	0.13***	0.21***	0.21***
	(0.01)	(0.03)	(0.01)	(0.01)
Dark skin (ref. brighter skin)	−0.01	−0.01	−0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Headscarf (ref. no scarf)	−0.06***	−0.06***	−0.09**	−0.06***
	(0.02)	(0.02)	(0.03)	(0.02)
Female (ref. male)	−0.02	−0.02	−0.02	−0.02
	(0.01)	(0.01)	(0.01)	(0.01)
Wanting to bring family (ref. no family)	−0.03*	−0.03*	−0.03*	−0.03*
	(0.01)	(0.01)	(0.01)	(0.01)
First immigrant shown in experiment	0.08***	0.08***	0.08***	0.08***
	(0.01)	(0.01)	(0.01)	(0.01)
Resp. female	0.00	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Resp. age in 10-year intervals	−0.01***	−0.01***	−0.01***	−0.01***
	(0.00)	(0.00)	(0.00)	(0.00)
Resp. highest completed education	0.03*	0.01	0.01	0.03
	(0.01)	(0.01)	(0.01)	(0.01)
Resp. general attitude toward immigrants	0.87***	0.87***	0.87***	0.87***
	(0.02)	(0.02)	(0.02)	(0.02)
Resp. nationality (Denmark)	−0.09***	−0.15***	−0.10***	−0.09***
	(0.01)	(0.03)	(0.02)	(0.03)
Three-way interaction	no	yes	yes	yes
Constant	0.25***	0.29***	0.27***	0.24***
	(0.03)	(0.03)	(0.03)	(0.03)
R^2	0.27	0.27	0.27	0.27
N	4483	4483	4483	4483

OLS regression, Unstandardized coefficients. (Standard errors clustered at the individual level). *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Socioeconomic status (SES).

finding in the first model without the controls holds even after considering the relatively strong effect of the respondents' general attitudes toward immigrants.[4] Hence, we can conclude that our initial findings are somewhat robust to this control.
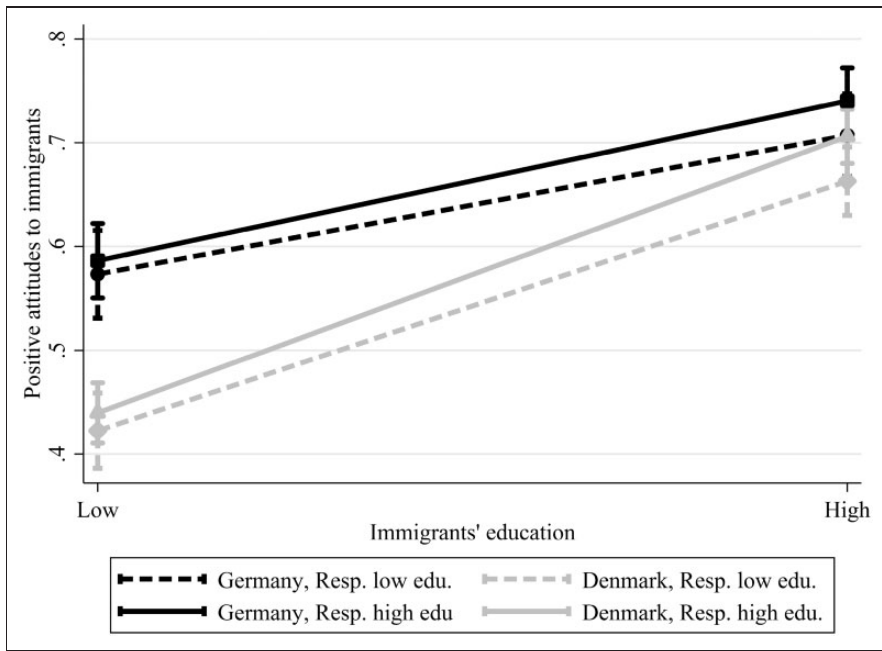
Figure 4. Attitudes to low- and high-skilled immigrants over respondents' education (*H1b*). Predicted Probabilities.
Note: The interaction model is based on model 2 in Table 2.

To test our other hypotheses, we rely on three different models that include different three-way interactions in Table 2. The interaction models are too large to be shown meaningfully in the table; thus, we rely on graphical presentation with the predicted probabilities based on the last three regressions in Table 2 (columns 2–4). The second model in Table 2 includes a full factorial three-way interaction between the respondents' nationality (Danish/German), the respondents' education (low/high), and the immigrants' education (low/high). This interaction allows us to investigate whether hypothesis 1b, which suggests that highly educated respondents prefer highly skilled immigrants to low-skilled immigrants, can find support in our data. We include the respondent's nationality in the interaction because previous analyses have shown that there are differences between the two nationalities.

The most notable finding in Figure 4 is that, compared to Germans, Danes are—regardless of their education—more skeptical toward low-skilled immigrants, confirming the result from Figure 4.

In both Denmark and Germany, there is a clear tendency for highly educated respondents to be more positive toward immigrants compared to low-educated respondents. The solid lines show this effect for both countries. Nevertheless, these differences are not significant—as illustrated by the overlapping confidence intervals between the solid and dotted lines.

Hypothesis 1b also stipulated that highly educated respondents prefer highly skilled over low-skilled immigrants. The analysis for both countries confirms this. Moreover, low-educated respondents prefer highly skilled immigrants in the two countries. Given that the lines for both countries are almost parallel, the figure also indicates that the effect of the respondents' educational level is similar in both countries.

Hypothesis 2a addresses the headscarf and skin color, which are cues for the culture, religion, and race of the immigrants. As observed from Table 1, the headscarf is significant only among Germans, not among Danes. That is, the headscarf affects Germans' attitudes toward immigrants negatively, but not Danes. Figure 5 tests this finding across the respondents' education and nationality under the headscarf condition and the skin color condition.

As shown in Figure 5(a), low-educated Danes respond the most to the headscarf, whereas highly educated Danes do not respond at all (the dotted line is steeper than the solid line for Danes). The headscarf condition affects the Germans regardless of the respondents' education, but this tendency fails to reach a significant level. In Figure 5(b), we also test this point with skin color and find no difference between educational groups.
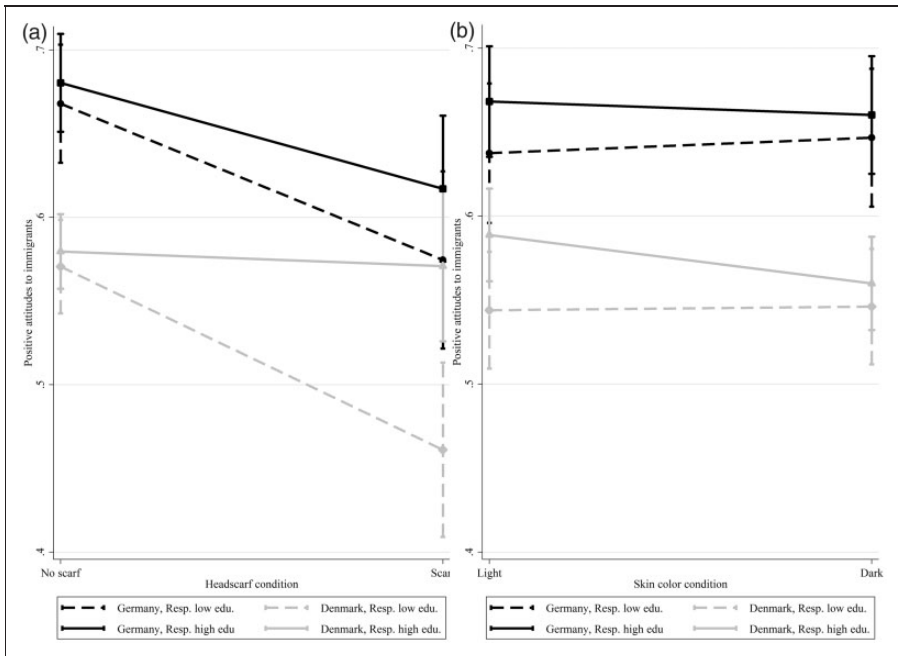

Figure 5. Attitudes to immigrants wearing a headscarf (a) or their skin color (b) over respondents' education (*H2a/2b*). Predicted probabilities.
Note: The interaction model is based on models 3 and 4 in Table 2.

In summary, in relation to hypothesis 2a, we observe from Table 1 that Germans respond negatively to the headscarf but, on average, Danes do not. However, in Figure 5, we observe that low-educated Danes significantly differ from the other groups concerning the headscarf by reacting sharply to the headscarf condition. That is, even Germans, react more strongly to the headscarf than Danes do, on average, the low-educated Danes respond even more strongly to this condition, whereas highly educated Danes do not respond at all. Hypothesis 2b finds support, given that highly educated respondents have more positive attitudes toward immigrants, particularly in the case of the headscarf condition.

Conclusion

By applying an identical survey experiment on citizens' attitudes toward immigrants in Denmark and Germany, we can test the robustness with which the classical thesis of economic and cultural threats plays out in these different welfare state contexts. Our study shows that Germans generally have more positive attitudes toward immigrants than Danes. The difference between the countries is substantial. It corresponds to a threefold increase in Danes' education level in terms of the positive effect of education on positive attitudes toward immigrants.

Furthermore, in both countries, we discover that citizens are more skeptical toward low-skilled immigrants compared to highly skilled immigrants. Danes react more strongly to immigrants' educational and qualification background than do Germans. We argue that because of Denmark's larger welfare state and significantly larger social benefit spending, Danes are more afraid that immigration will pose a threat to their universal welfare system. Danes may perceive immigrants as exploiting welfare benefits more than natives and thus as bearing a high economic cost.

Highly educated citizens are generally more positive toward immigrants in both countries. That is, highly educated citizens are less inclined to perceive immigration as a threat. We explain this by the sociotropic behavior findings in electoral research and higher education's promotion of tolerance and cosmopolitanism. However, all citizens in both countries—regardless of their education—prefer highly skilled to low-skilled immigrants with visually distinguishing features (skin color and/or headscarf).

At first glance, Germans react more negatively to the religious symbol of the headscarf than do Danes, on average, though further analysis shows that low-educated Danes react the most strongly. This aligns consistently with the findings that the right-wing Danish People's Party, running on a skeptical immigration platform, has a stronghold among less educated Danes. The strong effect of the headscarf among less educated Danes shows that it plays a key role in this group's attitudes toward immigrants. We find no effect of skin color, that is neither Germans nor Danes respond to the racial threat implied by skin color.

We show a clear educational cleavage on attitudes toward immigrants in both countries; this cleavage suggests that across the two different countries this is

consistent and robust. One method of further investigating this issue is to design studies that try to pinpoint which socialization mechanisms during the educational years drive this cleavage. Are specific types of education stronger predictors of positive attitudes toward immigrants than others? Additionally, how does this issue relate to the contact thesis? Do immigrants who surround you (e.g. neighborhood or workplace) affect your opinions of immigrants? The experimental research design shows a strong potential for establishing a causal relationship. However, the artificial situation of a survey experiment naturally challenges ecological validity, but considering the impossibility of conducting a field experiment on attitudes toward immigrations, the present design is a major step forward compared to traditional survey techniques.

The practical implications suggest that strong universal welfare states will face negative attitudes toward immigration as the burden of immigration increases. This skepticism will be strongest among the least educated.

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Supplemental material

Supplementary material is available for this article online.

Notes

1. The first German Gastarbeiter program was with Italy 1955, followed by Spain 1960, Greece 1960, Turkey 1961, Morocco 1963, Portugal 1964, Tunisia 1965, and Yugoslavia 1968 (Oezcan, 2004).
2. See the Online appendix for a screenshot example.
3. The two questions were 'Do you think the person's application for work permission in Denmark/Germany should be accepted or rejected?' and 'Assuming Rashid Siddiqui/ Randa Sabi is coming to Denmark/Germany with a work permission and decides later to apply for Danish/German citizenship, do you think this application should be accepted or rejected?' The answer to the first question is unconditional to the second question.
4. The general attitude toward immigrants is based on the three items from Figure 2. The Cronbach's Alpha value for the three items is 0.73.

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