

## SUPPLEMENTARY DATA

**Table S1.** Measures and Variables

<b>Ethnic preferences</b>	
Preference for same race immigrants	“To what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here?” The same question about people of a “different race or ethnic group” (the latter was subtracted from the former; R; 1-7, 7=high racial discrimination, i.e. supports allowing same-race immigration but not different-race immigration, 4=same attitude on both kinds of immigrants, 1=favors different-race immigration but not same-race immigration, i.e. “allow many different race to come”, and “allow none same race”). [4.24(.589),1/7]
Preference for EU immigrants from poor countries	“To what extent do you think [country] should allow immigrants from poorer countries in Europe,” and “immigrants from poorer countries outside Europe.” (1-7; 7=support for discrimination against non-EU immigrants from poor countries). [4.07(.408),1/7]
Preference for EU immigrant from rich countries	“To what extent do you think [country] should allow immigrants from richer countries in Europe,” and “immigrants from richer countries outside Europe.” (1-7, 7=discrimination against non-EU immigrants of rich countries). [4.09(.487),1/7]
<b>Perceived Threat Items</b>	
Perceived material threat	“Average wages and salaries are generally brought down by people coming to live and work here” (1-5, 5= disagree strongly; Reversed).
	“Using this card, would you say that people who come to live here generally take jobs away from workers in [country], or generally help to create new jobs?” (0-10, 10=create new jobs; R)
	“Most people who come to live here work and pay taxes. They also use health and welfare services. On balance, do you think people who come here take out more than they put in or put in more than they take out?” (0-10, 10=Generally put in more; R).
	“Would you say it is generally bad or good for [country]’s economy that people come to live here from other countries?” (0-10, 10=Good for the economy; R).
Perceived cultural threat	“Are [country]’s crime problems made worse or better by people coming to live here from other countries?” (0-10, 10=Crime problems better; R).
	“It is better for a country if almost everyone shares the same customs and traditions” (1-5, 5= disagree strongly; R).
Perceived cultural threat	“It is better for a country if there are a variety of different religions.” (1-5, 5= disagree strongly)
	“If a country wants to reduce tensions it should stop immigration.” (1-5, 5= disagree strongly).
<b>Controls</b>	
Satisfied with economic situation in	“On the whole how satisfied are you with the present state of the economy in [country]?” (0-10, 10=extremely satisfied). [4.57

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country	(2.37),0/10]
Satisfied with health services in country	“Please say what you think overall about the state of health services in [country] nowadays?” (0-10, 10=extremely satisfied). [5.15(.251),0/10]
Satisfied with household income	“Which of the descriptions on this card comes closest to how you feel about your household’s income nowadays?” (1-4, 4= finding it very difficult on present income). [3.06(2.73),0/10]
Unemployment experience	“Have you <u>ever</u> been unemployed and seeking work for a period of more than three months?”; “Has any of these periods lasted for 12 months or more?”; “Have any of these periods been within the past 5 years?” ( $\alpha=.79$ ; 1-4, 4= experienced unemployment). [1.44 (.89),1/4]
Feeling unsafe	“How safe would you feel walking alone in this area after dark?” (1-4, 4=very unsafe). [2.01 (.80), 1/4]
Perceived immigration scope	“Out of every 100 people living in [country], how many do you think were born outside [country]?” (0-100). [18.75(16.83),0/100]
Trust in people	“Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?”; “most people would try to take advantage of you if they got the chance, or would they try to be fair?”; “most of the time do people try to be helpful or are they mostly looking out for themselves?” ( $\alpha=.83$ ; 0-30, high=trustful). [5.16(2.00),0/10]
Ideology (political right)	“In politics people sometimes talk of “left” and “right.” Using this card, where would you place yourself on this scale?” (0-10, 10=right). [5.08(2.11),0/10]
Education	Years of full time education completed. [11.77(4.05),0/40]
Age	Respondents’ report of year of birth was subtracted from 2003. [47.39(18.225),18/110]
Religiosity	“Regardless of whether you belong to a particular religion, how religious would you say you are?”; “Apart from special occasions such as weddings and funerals, about how often do you attend religious services nowadays?”; “Apart from when you are at religious services, how often, if at all, do you pray?” ( $\alpha=.81$ ; 0-10, 10=religious). [4.94 (2.93),0/10]
Gender	0=male, 1=female. [0.476(0.499),0/1]
Parent	Reported persons in one’s household described as “son/ daughter (including step, adopted, foster, child of partner)” (0= not a parent, 1=a parent). [0.397(0.489),0/1]

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Mean (Std. errors), minimum/maximum are in squared brackets.

## SUPPLEMENTARY DATA B - ROBUST ANALYSES

As shown in Table S1 above, five questions were chosen to represent material threat and three to assess cultural threat. We modelled the two types of threat as two latent variables.<sup>1</sup> Confirmatory Factor Analysis (CFA) was conducted in order to assess the internal consistency of the threat items, and to test the hypothesized bi-dimensionality of the perceived threat. The fit indices for the hypothesized bi-dimensional model are well above the acceptable threshold (CFI=.988, TLI=.977, RMSEA=.040) and superior to the model that specifies a single latent threat factor, providing support for the two-dimensional conceptualization of perceived threat.

We tested for the cross-national equivalence of threat items, which might obstruct the comparability of the threat constructs across different countries, by employing multiple group CFA (Van de Vijver and Leung, 1997, see Table S2 below). For this, we first ran a baseline model in which all the factor loadings for each scale were constrained to be equal in all countries, while factor means, variances, covariances, and residuals were freely estimated for each country. The fit of this full invariance model was above the acceptable thresholds (CFI=.960, TLI=.946, RMSEA=.059). We evaluated modification indices and introduced several modifications to the models by relaxing the measurement invariance constraints for certain items as well as introducing new error term correlations (see Davidov et al., 2008; Arikian and Ben-Nun Bloom, 2013). Since the fit of the final partial invariance model is superior to the full invariance model (CFI=.990, TLI=.984, RMSEA=.033,  $\chi^2(44)=2919.161$ ,  $p=.000$ ), we conclude that item equivalence cannot be taken for granted.

It could be argued that some of the variables included in main models II and III in Table 1, such as trust, perceived immigration scope, and feelings of safety, are not necessarily exogenous, but are rather endogenous to perceived cultural and material threats. In order to test the robustness of our models, we reran the analyses using only exogenous variables such as income, level of education, unemployment, age, gender, and being a parent. Full results from the models can be found in Table S3 above. The fit indices of these alternative specifications are above accepted thresholds, and both cultural and material threat variables have the expected effects on the dependent variables. As can be seen in Table S3, the fit indices of these alternative specifications are above accepted thresholds (Model II CFI / TLI / RMSEA = .983 / .976 / .022; Model III CFI / TLI / RMSEA = .985 / .975 / .023, see Long, 1997), and both cultural and material threat variables have the expected effects on the dependent variables.

Next, we ran a number of models in which both types of threat are predicted by the subjective evaluations items (satisfied with country economy, satisfied with health services, feeling unsafe, perceived immigration scope, and trust in people). The fit indices of these alternative specifications are compared in Table S4 below. Findings show that the CFI, TLI, and RMSEA values of the original models are superior to those of alternative models. The AIC and BIC values of original models are also smaller than those of alternative specifications, indicating that the original specifications have better fit to the data and are thus to be preferred over the alternative version.

While the factor analysis results confirm that validity of the material threat measure, the recent literature on material threat may suggest that two of five indicators - the one on crime and the one on health and welfare services - may not fit with the traditional definition of threat. Thus, to further test the robustness of our results, we reran all the models excluding the items on attitudes on crime and health and welfare services for the material threat factor - see Table S5 below. The alternative models replicate the findings in the original models. All of them have fit indices that are well above the acceptable thresholds; cultural threat has positive

and statistically significant effects while material threat has negative and statistically significant effects on all the dependent variables in all of the models.

Furthermore, we also re-ran the models in Tables S3 and S4 using the restricted threat indicators (see Tables S6 and S7). The results of models using fewer items in the threat indicators are robust to the altered specification, such that the original findings are replicated.

**Table S2.** Threat and Ethnic Preferences in Immigration Attitudes: Multiple Group SEM Analysis

	Preferring same race immigration		Preferring EU immigrants from poor countries		Preferring EU immigrants from rich countries	
	<i>Material threat</i>	<i>Cultural threat</i>	<i>Material threat</i>	<i>Cultural threat</i>	<i>Material threat</i>	<i>Cultural threat</i>
Austria	.018 (.045)	.018 (.071)	<b>-.098 (.047)</b>	<b>.054 (.029)</b>	<b>-.139 (.057)</b>	<b>.085 (.036)</b>
Belgium	.109 (.090)	.074 (.058)	<b>.109 (.061)</b>	.007 (.039)	<b>.135 (.072)</b>	.048 (.047)
Czech Rep.	-.034 (.091)	.112 (.073)	<b>-.209 (.082)</b>	<b>.181 (.066)</b>	-.061 (.095)	.116 (.076)
Denmark	<b>-.385 (.092)</b>	<b>.524 (.067)</b>	<b>-.134 (.070)</b>	<b>.123 (.050)</b>	<b>-.193 (.071)</b>	<b>.192 (.050)</b>
Finland	<b>-.251 (.087)</b>	<b>.479 (.072)</b>	-.061 (.056)	<b>.080 (.045)</b>	<b>-.200 (.073)</b>	<b>.243 (.059)</b>
Germany	<b>-.220 (.079)</b>	<b>.321 (.068)</b>	-.068 (.056)	<b>.089 (.048)</b>	-.080 (.063)	<b>.093 (.055)</b>
Greece	.048 (.057)	.070 (.077)	.027 (.023)	-.036 (.031)	.026 (.037)	-.057 (.050)
Hungary	-.185 (.130)	.097 (.117)	.077 (.066)	-.028 (.059)	-.052 (.068)	.029 (.061)
Ireland	-.055 (.118)	<b>.330 (.116)</b>	<b>-.178 (.090)</b>	<b>.234 (.088)</b>	-.088 (.099)	<b>.150 (.096)</b>
Italy	.019 (.099)	<b>.099 (.061)</b>	.097 (.081)	-.025 (.050)	.106 (.104)	.001 (.064)
Luxembourg	-.001 (.213)	.137 (.094)	.118 (.132)	-.112 (.120)	.173 (.148)	<b>-.229 (.135)</b>
Netherlands	-.051 (.079)	<b>.206 (.066)</b>	<b>-.165 (.067)</b>	<b>.169 (.057)</b>	-.008 (.078)	.078 (.065)
Norway	<b>-.385 (.107)</b>	<b>.395 (.055)</b>	<b>-.192 (.075)</b>	<b>.178 (.039)</b>	<b>-.228 (.095)</b>	<b>.233 (.049)</b>
Poland	<b>-.122 (.072)</b>	<b>.233 (.065)</b>	<b>-.136 (.044)</b>	<b>.084 (.040)</b>	<b>-.127 (.063)</b>	<b>.102 (.056)</b>
Portugal	<b>-.181 (.099)</b>	<b>.425 (.106)</b>	.001 (.045)	-.015 (.040)	.038 (.056)	.017 (.049)
Slovenia	-.050 (.091)	<b>.192 (.086)</b>	.097 (.077)	-.108 (.072)	-.006 (.078)	<b>.122 (.073)</b>
Spain	-.118 (.082)	<b>.205 (.056)</b>	.071 (.059)	.006 (.040)	<b>.141 (.071)</b>	-.029 (.048)
Switzerland	<b>-.232 (.108)</b>	<b>.187 (.061)</b>	-.072 (.083)	.029 (.046)	-.007 (.093)	.047 (.049)
Sweden	<b>-.100 (.056)</b>	<b>.269 (.045)</b>	.005 (.045)	.040 (.035)	.007 (.054)	.028 (.042)
United Kingdom	<b>-.190 (.064)</b>	<b>.382 (.054)</b>	-.012 (.040)	.045 (.033)	-.068 (.051)	<b>.107 (.042)</b>

Coefficients are unstandardized weighted least squares regression estimates, with standard errors in parenthesis.

Error coefficients of control variables, factor loadings, error term correlations, factor variances, and residual variances are not presented here, and are available from the authors upon request.

Bold entries indicate two-tail  $p < .05$ .

**Table S3.** Model II and Model III using exogenous predictors only

	Model II			Model III		
	Same Race	EU Poor	EU Rich	Same Race	EU Poor	EU Rich
Cultural threat	<b>.212</b> (.032)	<b>.051</b> (.014)	<b>.083</b> (.016)	<b>.223</b> (.032)	<b>.054</b> (.014)	<b>.081</b> (.015)
Material threat	<b>-.083</b> (.026)	<b>-.033</b> (.016)	<b>-.047</b> (.019)	<b>-.069</b> (.026)	<b>-.031</b> (.015)	<b>-.033</b> (.017)
Satisfied with income	-	-	-	<b>-.021</b> (.005)	-.004 (.003)	-.006 (.004)
Unemployment	-	-	-	.000 (.005)	<b>.005</b> (.003)	-.006 (.004)
Education	-	-	-	<b>.007</b> (.002)	<b>.002</b> (.001)	<b>.004</b> (.001)
Age	-	-	-	<b>.001</b> (.000)	.000 (.000)	<b>.000</b> (.000)
Gender	-	-	-	<b>.030</b> (.008)	<b>.011</b> (.004)	<b>.028</b> (.004)
Parent	-	-	-	-.007 (.005)	-.005 (.004)	.007 (.005)
<b>Predictors of Threat:</b>	<i>Cultural</i>	<i>Material</i>		<i>Cultural</i>	<i>Material</i>	
Satisfied- income	<b>.149</b> (.032)	<b>.148</b> (.033)		<b>.151</b> (.032)	<b>.147</b> (.033)	
Unemployment	.003 (.013)	<b>.016</b> (.009)		.003 (.013)	<b>.016</b> (.009)	
Education	<b>-.047</b> (.006)	<b>-.028</b> (.006)		<b>-.048</b> (.006)	<b>-.028</b> (.006)	
Age	<b>.005</b> (.001)	.001 (.000)		<b>.005</b> (.001)	.001 (.000)	
Gender	<b>.059</b> (.014)	-.023 (.010)		<b>.053</b> (.014)	<b>.022</b> (.010)	
Parent	.010 (.015)	.012 (.012)		.010 (.015)	.012 (.012)	
f1/f2 correlation	<b>.203</b> (.024)			<b>.202</b> (.024)		
N / N(clusters)	26803 / 20			26803 / 20		
CFI/TLI/RMSEA	.983/ .976 / .022			.985/ .975/ .023		

Coefficients are unstandardized weighted least squares regression estimates, with standard errors in parenthesis. Bold entries indicate two-tail  $p < .05$ .

**Table S4.** Fit indices of original and alternative SEM specifications compared

	<b>N1 / N2</b>	<b>CFI</b>	<b>TLI</b>	<b>RMSEA</b>	<b>Chi-sq. (d.f.)</b>	<b>AIC</b>	<b>BIC</b>
<b>Model 2</b>							
Original Model	21492 / 20	.946	.929	.019	1394.107 (153)	670651.576	671233.783
Alternative Model	21492 / 20	.918	.884	.025	2478.207 (178)	1174379.599	1175240.946
<b>Model 3</b>							
Original Model	21492 / 20	.955	.921	.021	1147.912 (114)	670564.406	671457.655
Alternative Model	21492 / 20	.925	.878	.025	2260.661 (154)	1174232.156	1175284.914

**Table S5.** Models using fewer items for the material threat factor

	Model I			Model II			Model III		
	Same Race	EU Poor	EU Rich	Same Race	EU Poor	EU Rich	Same Race	EU Poor	EU Rich
Cultural threat	.231 (.031)	.063 (.012)	.091 (.016)	.261 (.035)	.068 (.013)	.109 (.023)	.243 (.036)	.064 (.014)	.097 (.020)
Material threat	-.110 (.031)	-.041 (.013)	-.056 (.018)	-.139 (.032)	-.050 (.017)	-.078 (.025)	-.105 (.035)	-.038 (.019)	-.054 (.021)
Satisfied with country economy	-	-	-	-	-	-	-.005 (.003)	.002 (.002)	-.001 (.002)
Satisfied country health services	-	-	-	-	-	-	-.001 (.002)	.001 (.001)	.002 (.002)
Satisfied with income	-	-	-	-	-	-	-.015 (.005)	.002 (.004)	.001 (.005)
Unemployment	-	-	-	-	-	-	.004 (.005)	.007 (.003)	-.003 (.005)
Feeling unsafe	-	-	-	-	-	-	.006 (.005)	.003 (.004)	-.002 (.005)
Perceived immig. scope	-	-	-	-	-	-	.000 (.000)	.000 (.000)	.000 (.000)
Trust in people	-	-	-	-	-	-	.002 (.003)	.002 (.001)	.000 (.002)
Political right	-	-	-	-	-	-	.008 (.003)	.001 (.001)	.001 (.001)
Education	-	-	-	-	-	-	.007 (.002)	.002 (.001)	.004 (.001)
Age	-	-	-	-	-	-	.000 (.000)	.000 (.000)	.001 (.000)
Religiosity	-	-	-	-	-	-	.002 (.001)	.001 (.001)	-.001 (.001)
Gender	-	-	-	-	-	-	.034 (.009)	.012 (.005)	.016 (.007)
Parent	-	-	-	-	-	-	-.007 (.007)	-.001 (.004)	.007 (.006)
<b>Predictors of Threat:</b>	<i>Cultural</i>	<i>Material</i>		<i>Cultural</i>	<i>Material</i>		<i>Cultural</i>	<i>Material</i>	
Satisfied with country economy	-	-		<b>-.014 (.007)</b>	<b>-.031 (.004)</b>		-.013 (.007)	<b>-.032 (.004)</b>	
Satisfied country health services	-	-		-.009 (.007)	<b>-.021 (.006)</b>		-.008 (.007)	<b>-.021 (.006)</b>	
Satisfied- income	-	-		<b>.080 (.020)</b>	<b>.108 (.022)</b>		<b>.082 (.021)</b>	<b>.107 (.022)</b>	
Unemployment	-	-		.009 (.011)	<b>.021 (.010)</b>		.008 (.011)	<b>.021 (.010)</b>	
Feeling unsafe	-	-		<b>.051 (.018)</b>	<b>.065 (.013)</b>		<b>.050 (.019)</b>	<b>.065 (.013)</b>	
Perceived immig. scope	-	-		<b>.002 (.001)</b>	<b>.003 (.001)</b>		<b>.002 (.001)</b>	<b>.003 (.001)</b>	
Trust in people	-	-		<b>-.081 (.010)</b>	<b>-.075 (.014)</b>		<b>-.081 (.019)</b>	<b>-.075 (.014)</b>	
Political right	-	-		<b>.068 (.008)</b>	<b>.031 (.006)</b>		<b>.066 (.008)</b>	<b>.031 (.006)</b>	
Education	-	-		<b>-.048 (.005)</b>	<b>-.033 (.004)</b>		<b>-.050 (.005)</b>	<b>-.032 (.004)</b>	
Age	-	-		<b>.005 (.001)</b>	-.001 (.001)		<b>.005 (.001)</b>	.000 (.001)	
Religiosity	-	-		.009 (.010)	-.005 (.009)		.008 (.010)	.005 (.009)	
Gender	-	-		<b>.109 (.017)</b>	.009 (.014)		<b>.101 (.017)</b>	.012 (.014)	
Parent	-	-		.003 (.014)	.008 (.012)		.003 (.015)	.008 (.012)	
f1/f2 correlation	<b>.308 (.043)</b>			<b>.206 (.018)</b>			<b>.205 (.018)</b>		
N/ N(clusters)	29482 / 21			21971 / 20			21971 / 20		
CFI/TLI/RMSEA	.984/ .971/ .032			.961/ .947/ .019			.970/ .936/ .021		

Coefficients are unstandardized weighted least squares regression estimates, with standard errors in parenthesis. Bold entries indicate two-tail  $p < .05$ .



**Table S6.** Models II and III using fewer items for the threat factors and exogenous predictors only

	Model II			Model III		
	Same Race	EU Poor	EU Rich	Same Race	EU Poor	EU Rich
Cultural Threat	<b>.237</b> (.032)	<b>.055</b> (.012)	<b>.096</b> (.018)	<b>.238</b> (.034)	<b>.056</b> (.012)	<b>.086</b> (.016)
Material Threat	<b>-.125</b> (.030)	<b>-.037</b> (.014)	<b>-.071</b> (.021)	<b>-.102</b> (.032)	<b>-.035</b> (.014)	<b>-.049</b> (.017)
Satisfied with income	-	-	-	<b>-.011</b> (.007)	.000 (.003)	.000 (.004)
Unemployment	-	-	-	.002 (.005)	<b>.005</b> (.003)	-.005 (.004)
Education	-	-	-	<b>.007</b> (.002)	<b>.001</b> (.001)	<b>.003</b> (.001)
Age	-	-	-	.000 (.000)	.000 (.000)	<b>.000</b> (.000)
Gender	-	-	-	<b>.024</b> (.008)	<b>.009</b> (.004)	<b>.025</b> (.004)
Parent	-	-	-	-.003 (.005)	-.004 (.004)	.007 (.005)
<b>Predictors of Threat:</b>	<i>Cultural</i>		<i>Material</i>	<i>Cultural</i>		<i>Material</i>
Satisfied- income	<b>.084 (.010)</b>		<b>.134 (.014)</b>	<b>.085 (.011)</b>		<b>.133 (.014)</b>
Unemployment	.011 (.009)		<b>.035 (.010)</b>	.010 (.009)		<b>.035 (.010)</b>
Education	<b>-.061 (.004)</b>		<b>-.046 (.006)</b>	<b>-.062 (.005)</b>		<b>-.046 (.006)</b>
Age	<b>.005 (.001)</b>		.000 (.000)	<b>.005 (.001)</b>		.000 (.000)
Gender	<b>.074 (.014)</b>		-.039 (.011)	<b>.068 (.014)</b>		.037 (.011)
Parent	.011 (.010)		-.011 (.010)	-.011 (.009)		.011 (.010)
f1/f2 correlation	<b>.257 (.035)</b>			<b>.256 (.035)</b>		
N/ N(clusters)	27693 / 20			27693 / 20		
CFI/TLI/RMSEA	.962/ .948/ .027			.964/ .968/ .029		

Coefficients are unstandardized weighted least squares regression estimates, with standard errors in parenthesis. Bold entries indicate two-tail  $p < .05$ .

**Table S7.** Fit indices of original and alternative SEM specifications compared (fewer items for threat factors)

	<b>N1 / N2</b>	<b>CFI</b>	<b>TLI</b>	<b>RMSEA</b>	<b>Chi-sq. (d.f.)</b>	<b>AIC</b>	<b>BIC</b>
<b>Model 2</b>							
Original Model	21971 / 20	.961	.947	.019	1049.856 (113)	510955.734	511467.573
Reverse Path Model	21971 / 20	.945	.917	.023	1664.371 (135)	1024338.279	1025154.022
<b>Model 3</b>							
Original Model	21971 / 20	.970	.936	.021	808.935 (74)	510903.056	511726.797
Reverse Path Model	21971 / 20	.890	.828	.038	2981.272 (146)	1109748.662	1110667.532

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<sup>i</sup> We added correlated errors between items 6 and 7, 1 and 6, 1 and 8, and 1 and 2. The correlated errors between items 1, 6, and 7 can be explained by their common response categories (although in different parts of the questionnaire), and the correlated error between items 6 and 7 by these two agree-disagree questions being asked successively, where the response categories are presented on the same “card.” Note that adding these error terms improves the model fit statistics substantively, suggesting that the model that specifies these correlations fits the data better.