

Online supplement (available at OSF)

for

Personal contact with refugees is key to welcoming them:

An analysis of politicians' and citizens' attitudes towards refugee integration

Table of Contents

Appendix 1 – Questionnaire design: Dutch version of the questionnaire	2
Appendix 2 – Distribution of categorical demographic variables in both samples	4
Appendix 3 – Survey validation: Test of the measurement model.....	5
Appendix 4a – Moderated mediation analyses <i>with</i> control variables	7
Appendix 4b – Moderated mediation analyses <i>without</i> control variables	9
Appendix 5 – Group comparisons	11
Appendix 6 – Comparison of the moderation effects in the two samples	13

Appendix 1 – Questionnaire design: Dutch version of the questionnaire

Political Ideology

Geef aan in hoeverre u het eens bent met de volgende stelling: Ik denk dat ik beter geïnformeerd ben over politiek en de overheid dan de meeste mensen (0-10)

Valence of Stereotypes about Refugees

Onderstaand ziet u een serie vaakgebruikte beschrijvende termen die vaak worden gebruikt om mensen te karakteriseren. Wij willen graag dat u deze lijst gebruikt om aan te geven hoe vluchtelingen zijn. Geef bij elk woord aan hoe karakteristiek dit woord is voor vluchtelingen (1 = helemaal niet karakteristiek; 7 = zeer karakteristiek).

1. Vriendelijk
2. Warm
3. Betrouwbaar
4. Tolerant
5. Oprecht
6. Capabel
7. Efficient
8. Georganiseerd
9. Vaardig

Opposition towards the integration of refugees

Vluchtelingen moeten helemaal niet worden geïntegreerd (1 = sterk mee oneens; 7 = sterk mee eens)

Support for the integration of refugees into society

Tegenwoordig ontvluchten veel mensen hun eigen land (bijvoorbeeld Syrië) en komen naar Nederland. Wie denkt u dat verantwoordelijk is voor de integratie van vluchtelingen in de Nederlandse samenleving? Geef alstublieft aan in welke mate u het eens bent met de onderstaande stellingen (1 = sterk mee oneens; 7 = sterk mee eens)

1. Werkgevers zijn verantwoordelijk
2. Nederlandse burgers zijn verantwoordelijk
3. Hun burens zijn verantwoordelijk
4. Vakbonden zijn verantwoordelijk

5. Vrijwilligers zijn verantwoordelijk

Openness to being personally affected by the integration of refugees

In welke mate zou u het onplezierig vinden de vluchtelingen als collega's te hebben? (1 = heel erg onplezierig; 7 = heel erg plezierig)

In welke mate zou u het onplezierig vinden de vluchtelingen als burens te hebben? (1 = heel erg onplezierig; 7 = heel erg plezierig)

Personally knowing refugees

Hoeveel mensen kent u die tot Vluchtelingen behoren (bijvoorbeeld via werk of vrienden)? (1 = Geen, 2 = Enkelen, 3 = Redelijk veel, 4 = Veel)

Appendix 2 – Distribution of categorical demographic variables in both samples

Table A2. Distribution of categorical demographic variables in both samples

		Politicians Citizens			
		(N = 905)		(N = 8013)	
		N	%	N	%
Gender	Male	683	75.47	6026	75.2
	Female	222	24.53	1987	24.8
Annual Income	< €25,000	102	11.27	1792	22.36
	€25,001 - €50,000	286	31.6	3323	41.47
	€50,001 - €75,000	273	30.17	1776	22.16
	€75,001 - €125,000	225	24.86	858	10.71
	€125,001 - €200,000	13	1.44	184	2.3
	€200,001 - €300,000	3	0.33	46	0.57
	€300,001 - €400,000	1	0.11	14	0.17
	> €400,000	2	0.22	20	0.25
Education Level	No/ basic education	3	0.33	17	0.21
	Lower secondary education	15	1.66	173	2.16
	Higher secondary education	16	1.77	313	3.91
	Community college	104	11.49	1039	12.97
	Pre-university education	103	11.38	1001	12.49
	Higher vocational education or bachelor's degree	365	40.33	3176	39.64
	University Master's degree and PhD	299	33.04	2294	28.63

Appendix 3 – Survey validation: Test of the measurement model

We have conducted a series of confirmatory factor analysis (i.e., CFA) to test the measurement part of the model and verify the discriminate validity of the latent constructs (i.e. the four latent constructs that are measured by more than one single item). Note that other observable variables – the variables that are measured by single items – are not included in the CFA.

Ideally, since, in theory, four distinctive constructs have been measured, we would expect that the four-factor model fits the data very well, resulting in a better fit in comparison to all alternative models. This is indeed the case. First, the model estimates as well as the fit indices is shown in Figure A3.1.

We further compare the four-factor model with alternative measurement models: all possible three-factor, two-factor or one-factor alternative models that are generated by combining two or more factors in the four-factor model into one “general” factor. The results have verified the superior performance of the four-factor model.

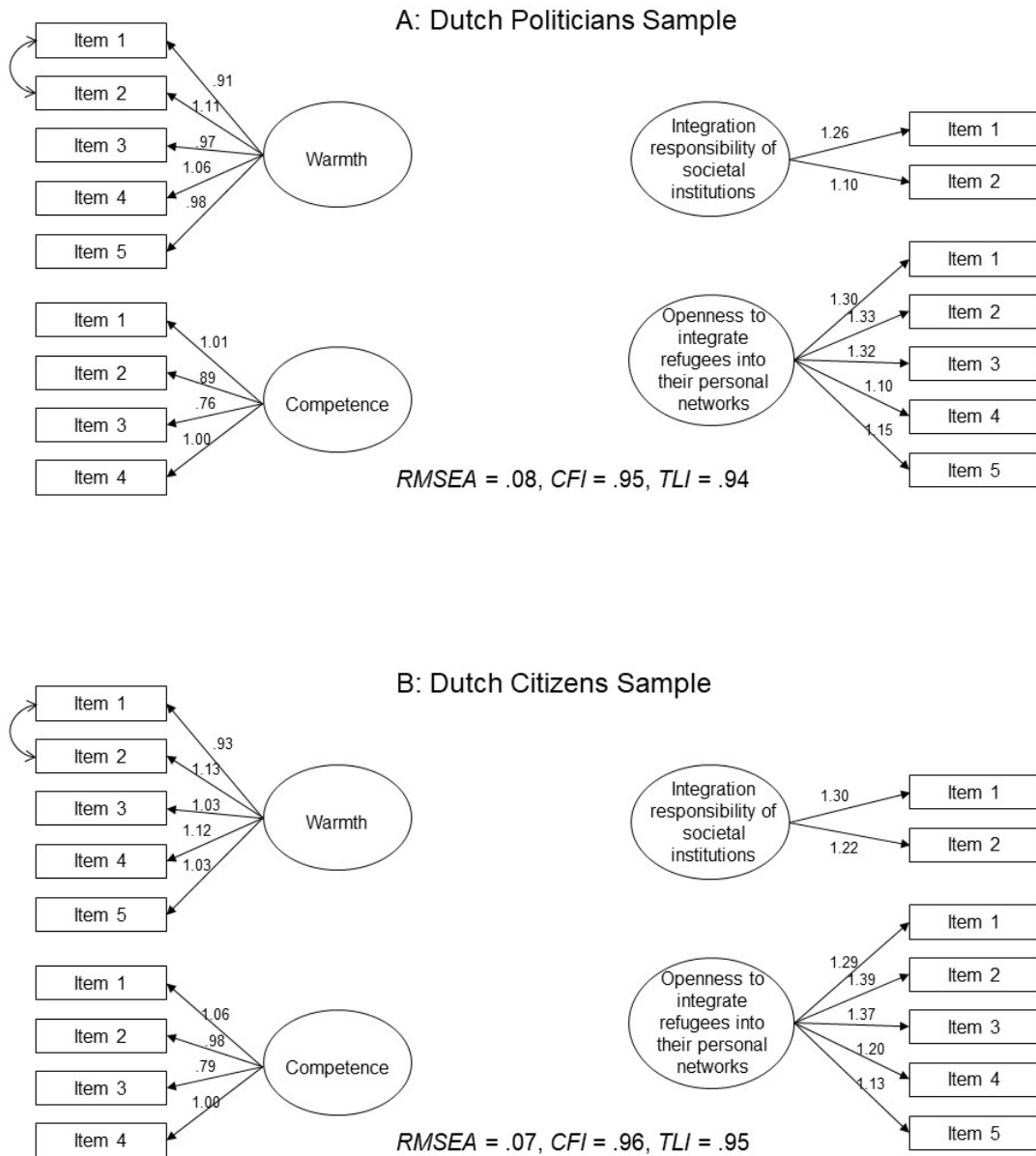


Figure A3.1 Measurement models in two samples

The proposed four-factor model fits the data very well in both samples, as indicated by the fit indices. Furthermore, all of the factor loadings are significant and close to 1.

Appendix 4a – Moderated mediation analyses *with* control variables

Before conducting the moderated mediation analysis, we first need to decide whether full mediation models (which *do not* include the direct path connecting the independent variable and the dependent variables) or partial mediation models (which *do* include the direct path connecting the two sets of variables) are preferred. Within the SEM framework, such decision could be done via model comparison, by comparing the relative fit indices of the two models in question. The model comparison results are demonstrated in Table A4a.1. Overall, the partial mediation models are preferred in both samples.

The final models are the moderated mediation models where the moderators have been added to the established partial mediation models. Table A4a.2 below supplements Figure 2 of the manuscript, presenting the direct effects of each pair of independent and dependent variable, as well as the moderated mediation effects with regard to the specific paths

Table A4a.1 Model comparison

Type	Samples	Models	AIC	BIC	χ^2 difference	<i>p</i> -value
With control variables	Politicians	Partial Mediation	40994	41292	-	-
		Full Mediation	41063	41347	75.75(3)	<i>p</i> <.01
	Citizens	Partial Mediation	376665	377098	-	-
		Full Mediation	377260	377672	601.17(3)	<i>p</i> <.01
Without control variables	Politicians	Partial Mediation	41008	41234	-	-
		Full Mediation	41083	41294	80.67(3)	<i>p</i> <.01
	Citizens	Partial Mediation	377046	377374	-	-
		Full Mediation	377734	378041	693.69(3)	<i>p</i> <.01

Table A4a.2 Moderated mediation models

Sample	Paths of Independent and Dependent Variables	Direct Effects	Moderated Mediation Index
Politicians	Political ideology -> Opposition towards the integration of refugees	.11 (.02)**	.002(.02)
	Political ideology -> Support for the integration of refugees into society	-.14 (.02)**	-.003(.01)
	Political ideology -> Openness to being personally affected by the integration of Refugees	-.08 (.02)**	-.003(.02)
Citizens	Political ideology -> Opposition towards the integration of refugees	.15 (.01)**	-.01(.00)*
	Political ideology -> Support for the integration of refugees into society	-.12 (.01)**	.01(.01)*
	Political ideology -> Openness to being personally affected by the integration of Refugees	-.10 (.01)**	.02(.01)*

Note: Both indirect effects and moderated mediation effects are reported with Bootstrapped standard errors (number of boots = 100). The moderated mediation index (Hayes, 2015) refers to the indicators that represent the strength and the direction of the moderated mediation effects. In other words, it suggests whether *personally knowing refugees* would moderate the mediation effects of the *valence of stereotypes about refugees* on certain pairs of independent variables and dependent variables; * $p < .05$; ** $p < .01$

Appendix 4b – Moderated mediation analyses *without* control variables

To further examine the robustness of the analysis, we estimate the moderated mediation models without the control variables. The estimation results are presented in Table A4b.1 and Figure A4b.1 below.

Table A4b.1 Moderated mediation models *without* control variables

Sample	Paths of Independent and Dependent Variables	Direct Effects	Moderated Mediation Index
Politicians	Political ideology -> Opposition towards the integration of refugees	.11 (.02)**	-.003(.009)
	Political ideology -> Support for the integration of refugees into society	-.14 (.02)**	-.005(.013)
	Political ideology -> Openness to being personally affected by the integration of Refugees	-.08 (.02)**	-.007(.018)
Citizens	Political ideology -> Opposition towards the integration of refugees	.15 (.01)**	-.012(.004)*
	Political ideology -> Support for the integration of refugees into society	-.13 (.01)**	.013(.005)*
	Political ideology -> Openness to being personally affected by the integration of Refugees	-.10 (.01)**	.018(.007)*

Note: Both indirect effects and moderated mediation effects are reported with Bootstrapped standard errors (number of boots = 100). The moderated mediation index (Hayes, 2015) refers to the indicators that represent the strength and the direction of the moderated mediation effects. In other words, it suggests whether *personally knowing refugees* would moderate the mediation effects of the *valence of stereotypes about refugees* on certain pairs of independent variables and dependent variables; * $p < .05$; ** $p < .01$

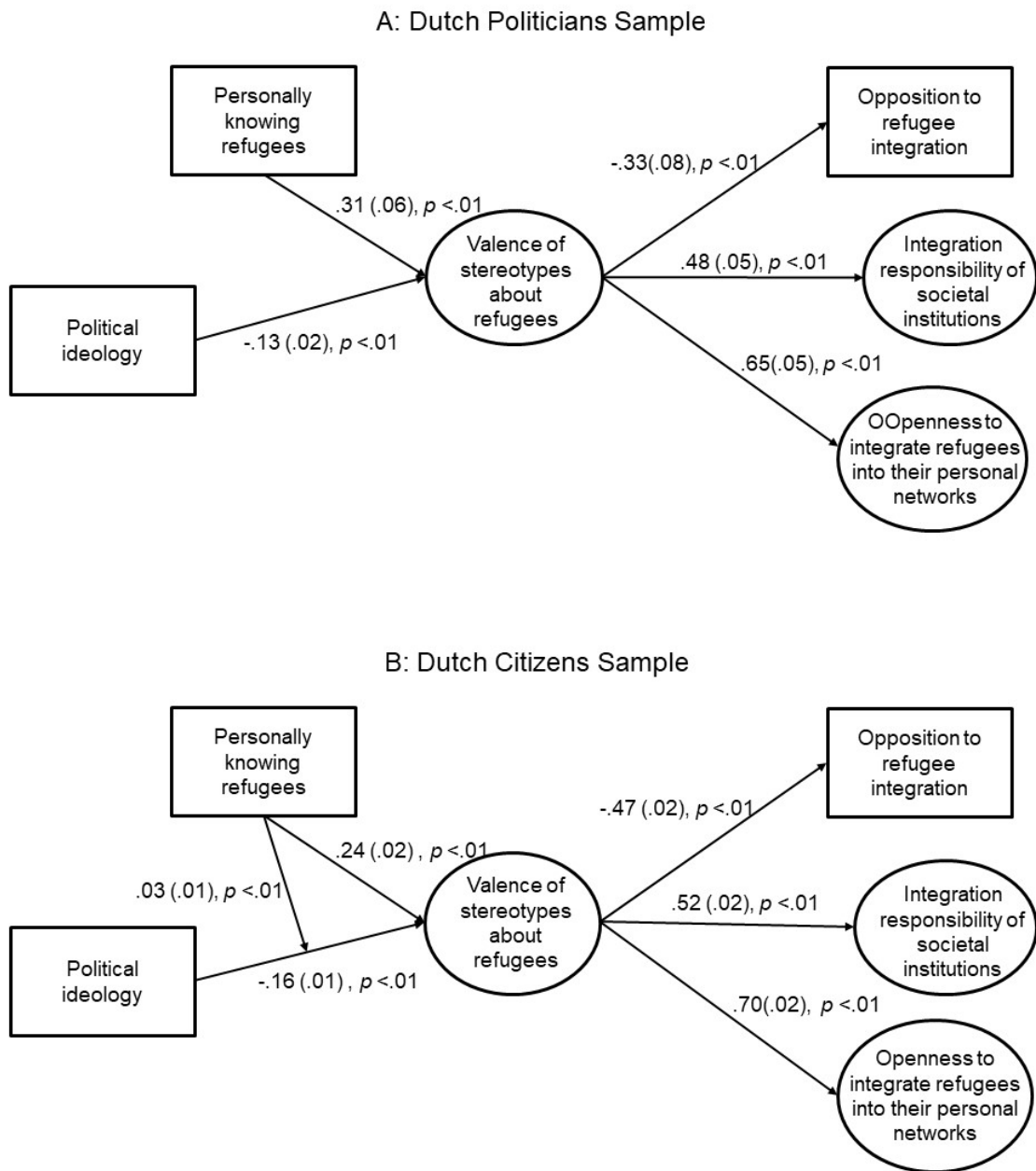


Figure A4b.1 Estimation results of the moderated mediation model *without* control variables

Appendix 5 – Group comparisons

Table A5.1 Outcome: Perceived warmth

	Model 1		Model 2	
	<i>(Main Effects)</i>		<i>(Interaction)</i>	
	B	SE	B	SE
Age	-.002**	.0007	-.002**	.0008
Gender	-.14**	.03	-.14**	.03
Education	.06**	.01	.06**	.01
Income	.005	.01	.006	.01
Group	.31**	.04	.37**	.06
Political Ideology	3.11**	.12	3.17**	.13
Group * Political Ideology	-	--	-.60	.39
Constant	3.54**	.08	3.53**	.08
<i>F</i>	144.8		124.4	
<i>R</i> ²	.10		.10	
Adjusted <i>R</i> ²	.10		.10	
Δ in adjusted <i>R</i> ²	-		.0001	

Note: Group (1 = politicians, 0 = citizens), Political Ideology (1 = left-wing, 0 = right-wing), Gender (1 = male, 0 = female); * $p < .05$, ** $p < .01$

Table A5.2 Outcome: Perceived Competence

	Model 3		Model 4	
	<i>(Main Effects)</i>		<i>(Interaction)</i>	
	B	SE	B	SE
Age	-.003**	.0007	-.003**	.0007
Gender	-.17**	.03	-.17**	.03
Education	.05**	.01	.05**	.01
Income	.006	.01	.007	.01
Group	.23**	.04	.28**	.05
Political Ideology	2.47**	.12	2.52**	.12
Group * Political Ideology	-	-	-.48	.37
Constant	3.68**	.07	3.67**	.07
<i>F</i>	144.8		95.6	
<i>R</i> ²	.10		.08	
Adjusted <i>R</i> ²	.10		.08	
Δ in adjusted <i>R</i> ²	-		.0008	

Note: Group (1 = politicians, 0 = citizens), Political Ideology (1 = left-wing, 0 = right-wing), Gender (1 = male, 0 = female); * $p < .05$, ** $p < .01$

Table A5.3 Outcome: Opposition to refugee integration

	Model 5		Model 6	
	<i>(Main Effects)</i>		<i>(Interaction)</i>	
	B	SE	B	SE
Age	.0006	.001	.0006	.001
Gender	.26**	.04	.26**	.04
Education	-.21**	.02	-.21**	.02
Income	-.01	.02	-.01	.02
Group	-.13*	.06	-.23**	.08
Political Ideology	-4.43**	.18	-4.54**	.19
Group * Political Ideology	-	-	1.05	.59
Constant	3.54**	.12	3.56**	.12
<i>F</i>	164.4		141.4	

R ²	.11	.11
Adjusted R ²	.11	.11
Δ in adjusted R ²	-	.0002

Note: Group (1= politicians, 0 = citizens), Political Ideology (1 = left-wing, 0 = right-wing), Gender (1 = male, 0 = female); * p < .05, ** p < .01

Table A5.4 Outcome: Integration responsibility of societal stakeholders

	Model 7		Model 8	
	<i>(Main Effects)</i>		<i>(Interaction)</i>	
	B	SE	B	SE
Age	.003**	.0009	.003**	.0009
Gender	-.24**	.04	-.24**	.04
Education	.13**	.01	.13**	.01
Income	-.02	.01	-.02	.01
Group	.18**	.05	.18**	.07
Political Ideology	4.30**	.15	4.30**	.16
Group * Political Ideology	-	-	.03	.49
Constant	2.65**	.10	2.65**	.10
<i>F</i>	194.1		166.3	
R ²	.13		.13	
Adjusted R ²	.13		.13	
Δ in adjusted R ²	-		0	

Note: Group (1= politicians, 0 = citizens), Political Ideology (1 = left-wing, 0 = right-wing), Gender (1 = male, 0 = female); * p < .05, ** p < .01

Table A5.5 Outcome: Openness to integrate refugees into their personal networks

	Model 9		Model 10	
	<i>(Main Effects)</i>		<i>(Interaction)</i>	
	B	SE	B	SE
Age	.0003	.001	.0003	.001
Gender	-.29**	.04	-.29**	.03
Education	.08**	.01	.07**	.01
Income	.007	.01	.009	.01
Group	.32**	.05	.45**	.07
Political Ideology	4.11**	.14	4.25**	.16
Group * Political Ideology	-	-	-1.33**	.48
Constant	3.80**	.09	3.77**	.10
<i>F</i>	171.7		148.4	
R ²	.12		.12	
Adjusted R ²	.12		.12	
Δ in adjusted R ²	-		.0007**	

Note: Group (1= politicians, 0 = citizens), Political Ideology (1 = left-wing, 0 = right-wing), Gender (1 = male, 0 = female); * p < .05, ** p < .01

Appendix 6 – Comparison of the moderation effects in the two samples

We have shown that the moderation effects of personally knowing refugees were significant among Dutch citizens but not among Dutch politicians. We now turn to test if the difference between the moderation effects is significantly different across the two samples. Prior to the analysis, we merged the two samples together and created an additional dummy variable that indicates the group membership of the participants (politicians vs. citizens). The results of OLS estimation is shown in Table A6.1. The three-way interaction term is indeed not significant ($\beta = -.03$ (.02), $p < .20$; Model 4), suggesting no group differences in the moderation effect of personally knowing refugees. Meanwhile, the two-way interaction term of political ideology and personally knowing refugees is significant, such that, for all participants together (i.e., Dutch residents), the negative effects of more right-wing ideology on stereotype valence is mitigated by more contact with refugees. Therefore, we may conclude that the moderation effect of personally knowing refugees is only identifiable in very large samples.

Table A6.1 Regression on stereotype valence

	Model 1 (controls)		Model 2 (main effects)		Model 3 (two-way interactions)		Model 4 (three-way interactions)	
	B	SE	B	SE	B	SE	B	SE
Age	-0.002**	.0007	-0.003**	.000	-0.003**	.000	-0.003**	.000
Gender	-.22**	.02	-.13**	.02	-.13**	.02	-.13**	.02
Education	.10**	.01	.05**	.01	.05**	.01	.05**	.01
Income	-.03*	.01	.01	.01	.01	.01	.01	.01
Group			.19**	.03	.19**	.03	.19**	.03
Political Ideology			-.12**	.005	-.13**	.005	-.13**	.005
Contact			.20**	.01	.20**	.02	.20**	.02
Group * Political Ideology					.027	.014	.027	.014
Group * Contact					.081	.049	.077	.049
Contact* Political Ideology					.019**	.007	.021	.007
Group *Contact* Political Ideology							-.03	.02
Constant	3.81**	.07	3.96**	.06	3.96**	.06	3.96**	.06
F		61.27		191.7		135.7		123.5
R ²		.027		.13		.13		.13
Adjusted R ²		.026		.13		.13		.13
Δ in adjusted R ²		-		.104		.001		.0001

Note: Group (1 = politicians, 0 = citizens), Political Ideology (1 = left-wing, 0 = right-wing), (Gender (1 = male, 0 = female); Contact = Personally knowing refugees; * $p < .05$, ** $p < .01$)