

Supplemental Material

Table E1. Correlations between context-specific contact experiences for Study 1 (below the diagonal) and Study 2 (above the diagonal)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Direct Positive Contact																														
1 Family		.52**	.55**	.28**	.34**	.35**	.43**	.35**	.16*	.08	.20**	.04	.09	.20**	.14	.13	.37**	.26**	.31**	.30**	.06	.04	.16*	.04	.14	.17*	.14	.21**	.20**	.17*
2 Friends	.52**		.49**	.39**	.39**	.47**	.42**	.43**	.06	.11	.11	.12	.10	.19*	.04	.08	.26**	.40**	.32**	.23**	.01	.08	.23**	-.12	-.04	.09	.09	.19*	.24**	.18*
3 Neighborhood	.30**	.53**		.24**	.48**	.42**	.55**	.51**	.06	.07	.24**	.07	.19*	.13	.16*	.17*	.42**	.27**	.43**	.29**	.08	-.02	.18*	.04	.09	.26**	.12	.18*	.20**	.06
4 Education	.24**	.49**	.45**		.33**	.32**	.30**	.24**	.08	.03	.14	.40**	.17*	.10	.00	.07	.18*	.29**	.26**	.12	-.07	.00	.18*	.04	.00	.17*	.06	.02	.01	.07
5 Work	.18*	.40**	.45**	.63**		.31**	.41**	.42**	.10	-.01	.17*	.21**	.37**	.11	.02	.06	.23**	.25**	.24**	.44**	.05	.06	.24**	.11	.01	.12	.19*	.26**	.21	.15
6 Vol. Work	.37**	.50**	.34**	.42**	.29**		.33**	.24**	.09	.06	.08	.23**	.11	.57**	.09	.06	.29**	.34**	.23**	.18*	.12	.11	.29**	.02	-.07	.01	-.02	.24**	.20**	.20**
7 Public	.23**	.36**	.41**	.34**	.31**	.23**		.63**	-.11	-.15*	-.05	.01	.08	.02	-.03	-.06	.26**	.35**	.27**	.32**	.00	-.06	.14	-.12	-.10	.03	.06	.32**	.31**	.20**
8 Clubbing	.23**	.36**	.40**	.35**	.38**	.19*	.52**		.05	.03	.08	.15*	.17*	.05	.09	.23**	.21**	.21**	.32**	.28**	.00	-.09	.13	.00	.03	.20	.13	.30**	.32**	.21**
Direct Negative Contact																														
9 Family	.21**	.12	.10	.12	.08	-.01	-.08	.02		.77**	.66**	.59**	.65**	.15	.48**	.60**	.01	-.02	.07	.02	.22**	.25**	.19**	.54**	.44**	.43**	.39**	-.05	-.10	.02
10 Friends	.10	.15*	.11	.11	.10	.04	-.05	.10	.60**		.61**	.47**	.61**	.23**	.48**	.61**	-.01	-.04	.06	-.02	.10	.24**	.14	.46**	.49**	.36**	.41**	-.01	-.08	.04
11 Neighborhood	.09	.16*	.09	.11	.11	.05	-.08	.05	.47**	.70**		.43**	.53**	.18	.65**	.66**	.04	-.12	.18*	-.06	.26**	.27**	.22**	.60**	.56**	.60**	.40**	.00	-.07	.12
12 Education	.02	.13	.08	.27**	.25**	.07	.04	.09	.38**	.49**	.58**		.54**	.20**	.40**	.46**	.06	.08	.07	.04	.08	.11	.18*	.39**	.24**	.29**	.24**	.08	-.01	.05
13 Work	-.09	.03	.09	.08	.29**	-.04	-.02	.10	.27**	.51**	.60**	.56**		.10	.39**	.53**	.02	-.04	.07	.12	.11	.15	.18*	.47**	.41**	.36**	.57**	.04	-.08	.05
14 Vol. Work	.20**	.27**	.24**	.24**	.25**	.39**	.02	.06	.27**	.49**	.44**	.43**	.35**		.20**	.12	.15	.07	.11	-.06	.10	.17*	.14	.18*	.15	.01	.11	.25**	.16*	.23**
15 Public	-.01	.01	.04	.12	.12	-.08	-.12	.01	.38**	.53**	.62**	.48**	.49**	.27**		.69**	-.11	-.12	.10	-.05	.25**	.23**	.13	.61**	.49**	.47**	.28**	.12	.01	.22**
16 Clubbing	.05	.14	.11	.20**	.22**	.06	-.05	.11	.47**	.61**	.59**	.49**	.47**	.43**	.70**		-.05	-.12	.04	.02	.14	.14	.14	.54**	.53**	.53**	.36**	.09	.06	.20**
Indirect Positive Contact																														
17 Family	.51**	.44**	.41**	.26**	.17*	.31**	.39**	.36**	.07	.03	-.02	.04	-.06	.14	-.05	.03		.39**	.38**	.33**	.07	-.05	.09	-.08	-.01	.06	.06	.04	.14	.03
18 Friends	.27**	.59**	.50**	.44**	.35**	.36**	.40**	.40**	-.01	.02	.00	.04	-.06	.17*	-.11	.03	.48**		.32**	.45**	.07	.09	.13	-.14	.00	.01	.01	.08	.15	.06
19 Neighbors	.27**	.51**	.55**	.45**	.38**	.25**	.43**	.46**	.09	.09	.14	.20**	.12	.19*	.01	.14	.43**	.53**		.40**	.22**	.19*	.23**	.06	.09	.37**	.10	.16*	.14	.04
20 Colleagues	.14	.42**	.37**	.45**	.56**	.27**	.28**	.39**	.05	.06	.14	.24**	.14	.19*	.04	.14	.31**	.45**	.54**		.09	.07	.20**	-.02	.06	.12	.20**	.26**	.27**	.08
21 Newspapers	.06	.03	-.01	.01	-.03	-.02	.06	.11	-.13	.00	.04	.02	.09	.02	.14	.01	.10	.11	.13	.07		.67**	.55**	.18*	.15	.03	.01	.06	-.15*	.16*
22 TV	-.01	-.06	.01	.04	-.03	.02	-.04	.04	-.09	.04	.11	.07	.13	.04	.13	.05	.08	.03	.17*	.06	.77**		.60**	.20**	.23**	.06	.14	-.02	-.12	.18*
23 Internet	.18*	.21**	.12	.21**	.15*	.11	.22**	.30**	-.09	-.05	-.15*	-.05	-.13	-.03	-.14	-.11	.22**	.33**	.18*	.27**	.45**	.37**		.08	.14	.00	.12	.22**	.03	.35**
Indirect Negative Contact																														
24 Family	.09	.10	.10	.09	.07	-.01	.06	.10	.32**	.37**	.44**	.35**	.29**	.17*	.40**	.37**	-.02	-.04	.12	.04	.07	.12	-.01		.65**	.58**	.43**	.04	-.03	.09
25 Friends	-.06	-.02	.03	-.03	.02	-.06	-.12	.05	.27**	.42**	.48**	.27**	.39**	.24**	.49**	.45**	-.03	-.07	-.05	-.03	.00	.05	-.21**	.47**		.58**	.59**	.05	-.09	.21**
26 Neighbors	.04	.17*	.22**	.18*	.16*	.05	.14	.15*	.32**	.42**	.54**	.47**	.42**	.34**	.36**	.39**	.06	.08	.22**	.19**	.03	.09	-.06	.40**	.48**		.47**	.09	.06	.12
27 Colleagues	.01	.14	.08	.04	.15*	.07	.01	.26**	.20**	.44**	.51**	.29**	.53**	.24**	.43**	.42**	.01	.02	.06	.15*	.22**	.19*	.01	.36**	.52**	.54**		.10	.02	.15
28 Newspapers	-.11	.07	.14	.16*	.24**	.03	.16*	.14	.10	.08	.05	.07	.06	.14	.08	.16*	.09	.15*	.03	.17*	-.05	-.11	.03	.17*	.08	.14	.08		.71**	.52**
29 TV	-.08	.03	.17*	.14	.21**	.09	.15*	.17*	.11	.09	.08	.06	.07	.11	.06	.16*	.11	.15*	.03	.19*	-.18*	-.11	-.07	.12	.02	.13	.07	.83		.43**
30 Internet	-.02	.12	.12	.18*	.23**	.10	.12	.09	.11	.15*	.10	.05	.08	.14	.15*	.20**	.04	.05	-.04	.23**	-.11	-.08	.10	.13	.14	.18*	.19*	.53**	.51**	

Note. Correlations within positive contact experiences and within negative contact experiences are marked with grey. All other numbers indicate correlations between positive and negative contact experiences. * p < .05, ** p < .01

Table E2. Correlations between context-specific contact experiences for Study 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30										
Direct Positive Contact																																								
1 Family																																								
2 Friends	.40**																																							
3 Neighborhood	.23**	.46**																																						
4 Education	.23**	.41**	.45**																																					
5 Work	.25**	.41**	.42**	.54**																																				
6 Vol. Work	.26**	.34**	.37**	.36**	.34**																																			
7 Public	.15*	.27**	.45**	.45**	.44**	.25**																																		
8 Clubbing	.19**	.32**	.42**	.51**	.49**	.24**	.62**																																	
Direct Negative Contact																																								
9 Family	.19**	.00	-.07	.02	.00	.00	-.10	-.06																																
10 Friends	.12*	.08	-.04	.03	.03	.05	-.13*	-.03	.69**																															
11 Neighborhood	.02	-.03	.01	.04	.01	.09	-.12	-.07	.43**	.53**																														
12 Education	.08	-.07	-.06	.14*	.05	.08	-.11	.00	.47**	.58**	.61**																													
13 Work	.00	-.06	-.06	.08	.22**	.03	-.02	.07	.36**	.43**	.49**	.62**																												
14 Vol. Work	.05	.00	-.01	.01	-.01	.39**	-.11	-.05	.30**	.45**	.47**	.53**	.46**																											
15 Public	-.02	-.05	-.04	-.05	-.01	-.03	-.11	-.08	.45**	.49**	.68**	.57**	.49**	.39**																										
16 Clubbing	-.09	-.08	-.09	-.01	-.05	-.08	-.16**	-.05	.42**	.48**	.58**	.58**	.41**	.35**	.79**																									
Indirect Positive Contact																																								
17 Family	.42**	.29**	.31**	.29**	.25**	.21**	.23**	.23**	.01	-.08	-.10	-.11	-.12	-.08	-.20**	-.22**																								
18 Friends	.19**	.46**	.35**	.37**	.27**	.24**	.34**	.30**	-.11	-.12*	-.18**	-.17**	-.20**	-.16**	-.26**	-.28**	.54**																							
19 Neighbors	.14*	.31**	.49**	.37**	.25**	.27**	.30**	.28**	.01	-.03	-.02	-.06	-.11	-.03	-.14*	-.21**	.40**	.55**																						
20 Colleagues	.15*	.37**	.36**	.38**	.55**	.23**	.31**	.34**	-.13**	-.11	-.12*	-.09	-.01	-.11	-.19**	-.20**	.42**	.56**	.47**																					
21 Newspapers	.05	-.06	-.04	-.12*	.00	.03	-.01	-.02	.19**	.19**	.22**	.15*	.10	.11	.27**	.22**	.01	-.06	.02	-.07																				
22 TV	.00	-.03	-.05	-.04	.05	.04	-.01	-.01	.17**	.20**	.27**	.19**	.13*	.10	.31**	.24**	.04	-.02	.04	.03	.79**																			
23 Internet	.11	.10	.07	.06	.00	.04	.01	.05	-.01	.03	.04	.00	-.08	-.07	.10	.10	.08	.14*	.10	.14	.43**	.40**																		
Indirect Negative Contact																																								
24 Family	.02	-.02	-.01	.08	.10	.04	-.08	-.05	.37**	.41**	.42**	.44**	.34**	.29**	.47**	.44**	-.13*	-.14*	-.04	.01	.06	.11	.02																	
25 Friends	.07	-.02	.01	.12*	.07	-.01	-.06	.04	.41**	.47**	.45**	.46**	.34**	.29**	.56**	.53**	-.11	-.13*	-.03	-.05	.20**	.23**	.13*	.65**																
26 Neighbors	.04	.00	.09	.19**	.18**	.10	.01	.04	.33**	.38**	.54**	.46**	.39**	.31**	.46**	.41**	-.13*	-.10	.09	.01	.13*	.18**	.05	.57**	.61**															
27 Colleagues	.05	-.01	-.01	.16**	.23**	.05	-.01	.10	.29**	.33**	.42**	.54**	.68**	.37**	.49**	.47**	-.14*	-.14*	-.06	.05	.07	.10	-.01	.55**	.55**	.58**														
28 Newspapers	-.03	.11	.17**	.21**	.12*	.07	.21**	.17**	-.03	-.03	-.01	.00	.03	-.04	-.01	-.02	.02	.12*	.11	.16**	-.31**	-.35**	-.06	.09	.06	.09	.09													
29 TV	-.07	.09	.13*	.24**	.15**	.07	.20**	.17**	-.04	-.02	-.04	-.03	.02	-.05	-.06	-.04	.06	.14*	.14*	.23**	-.32**	-.26**	-.07	.07	.05	.07	.09	.86**												
30 Internet	.01	.09	.13*	.18**	.12*	.05	.10	.09	.06	.08	.10	.15**	.14*	.06	.10	.10	.08	.15*	.12*	.17**	-.10	-.14*	.06	.25**	.23**	.17**	.26**	.64**	.63**											

Note. Correlations within positive contact experiences and within negative contact experiences are marked with grey. All other numbers indicate correlations between positive and negative contact experiences. * p < .05, ** p < .01

Cluster Analysis

To rule out the possibility that participants used the context-sensitive contact measure to express their preexisting attitudes towards refugees without differentiating between the contexts, we conducted K-means cluster analysis with predetermined number of 4 clusters for direct positive contact, direct negative contact, indirect positive contact, and indirect negative contact separately. Mean contact frequencies for each cluster are displayed in Figures S1-S3.

Results show that the clusters do not just differ in overall contact frequency but are associated with context-specific pattern of contact frequencies. For instance, in Study 1 Cluster 1 covers those participants who reported positive direct contact mainly in the public context. By contrast, Cluster 3 covers those participants who reported positive direct contact mainly in the volunteering and the public context. The context-specific patterns of contact frequency for negative direct contact and for indirect contact differs from this pattern (see Figures S1-S3). However, for all types of contact context-specific clusters emerged. Hence, participants did not just use the measure to express their attitudes but responded differently depending on the context.

Figure E1. Frequencies of positive and negative direct and indirect contact for each cluster (Study 1)

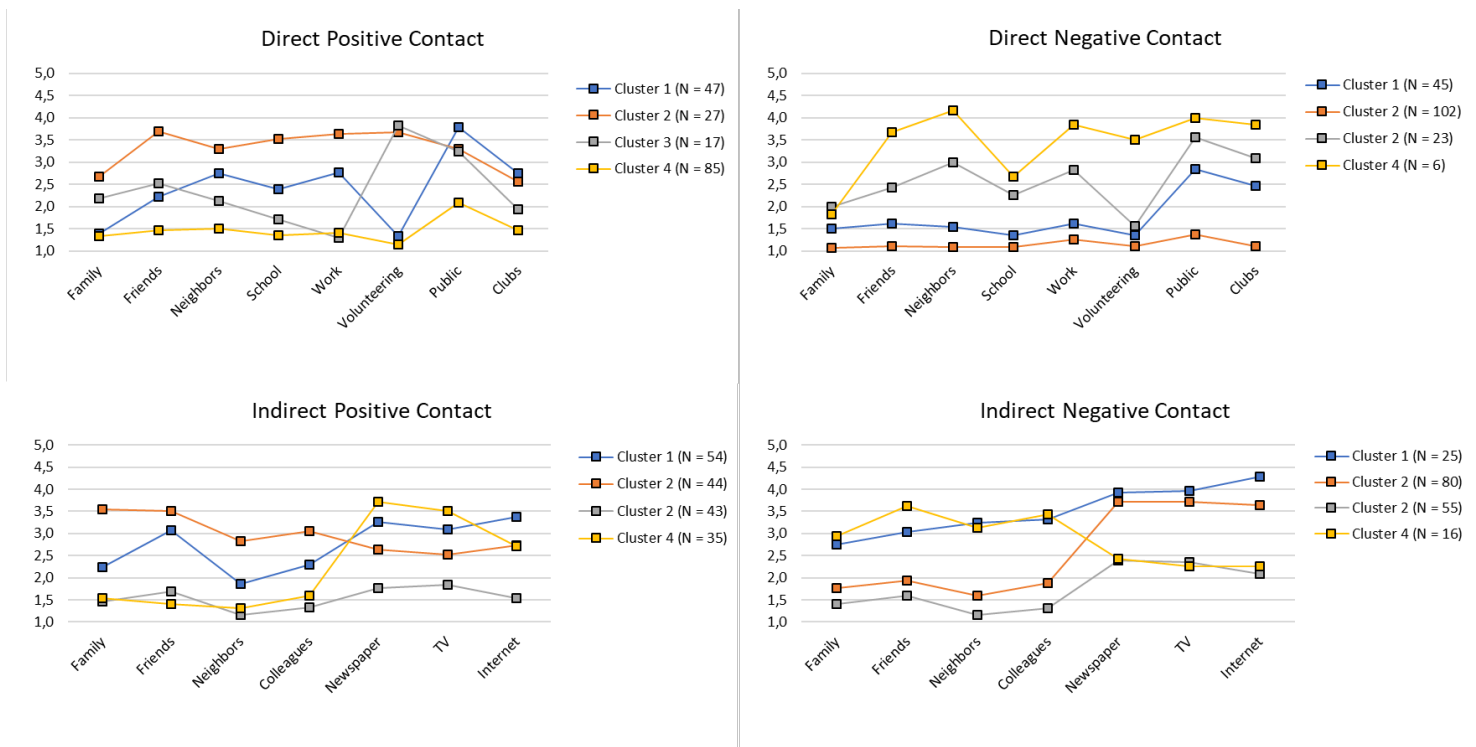


Figure E2. Frequencies of positive and negative direct and indirect contact for each cluster (Study 2)

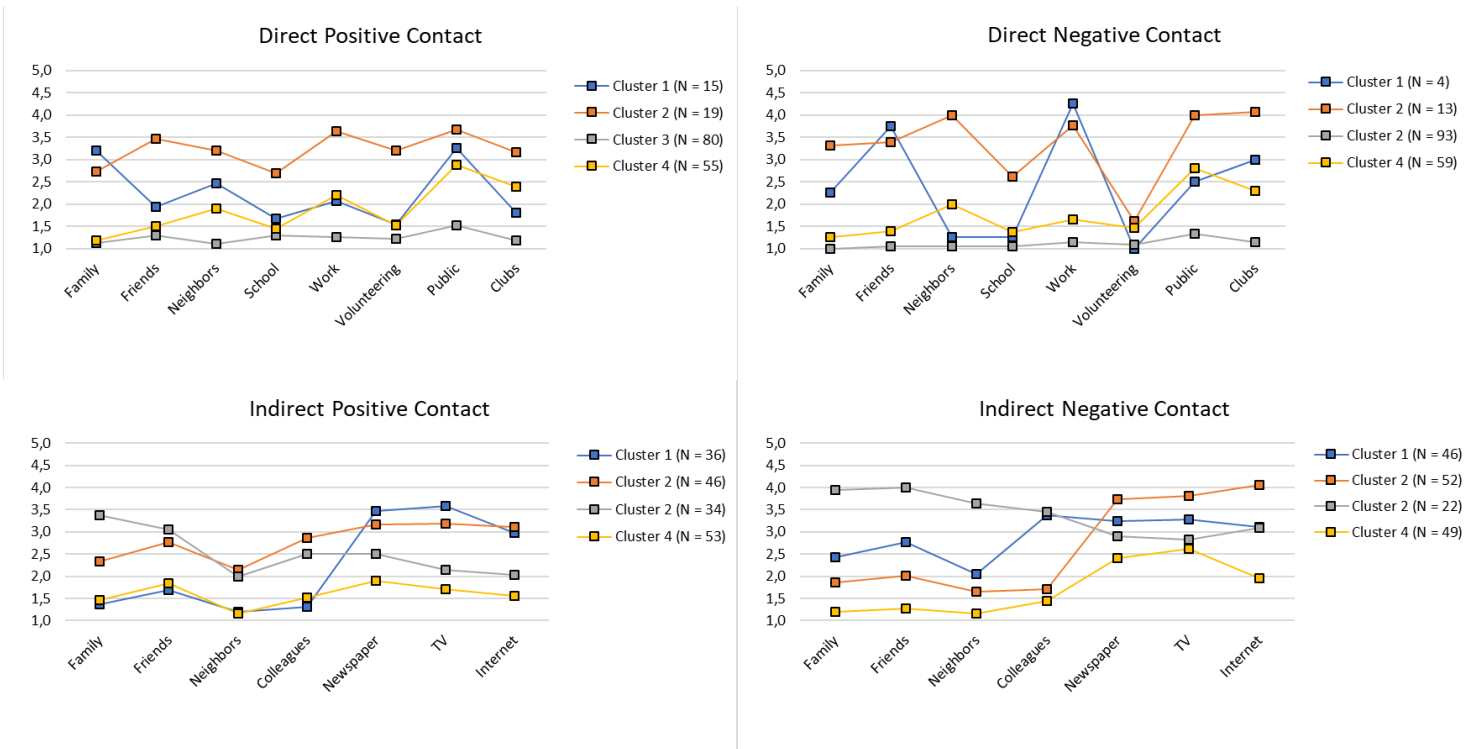
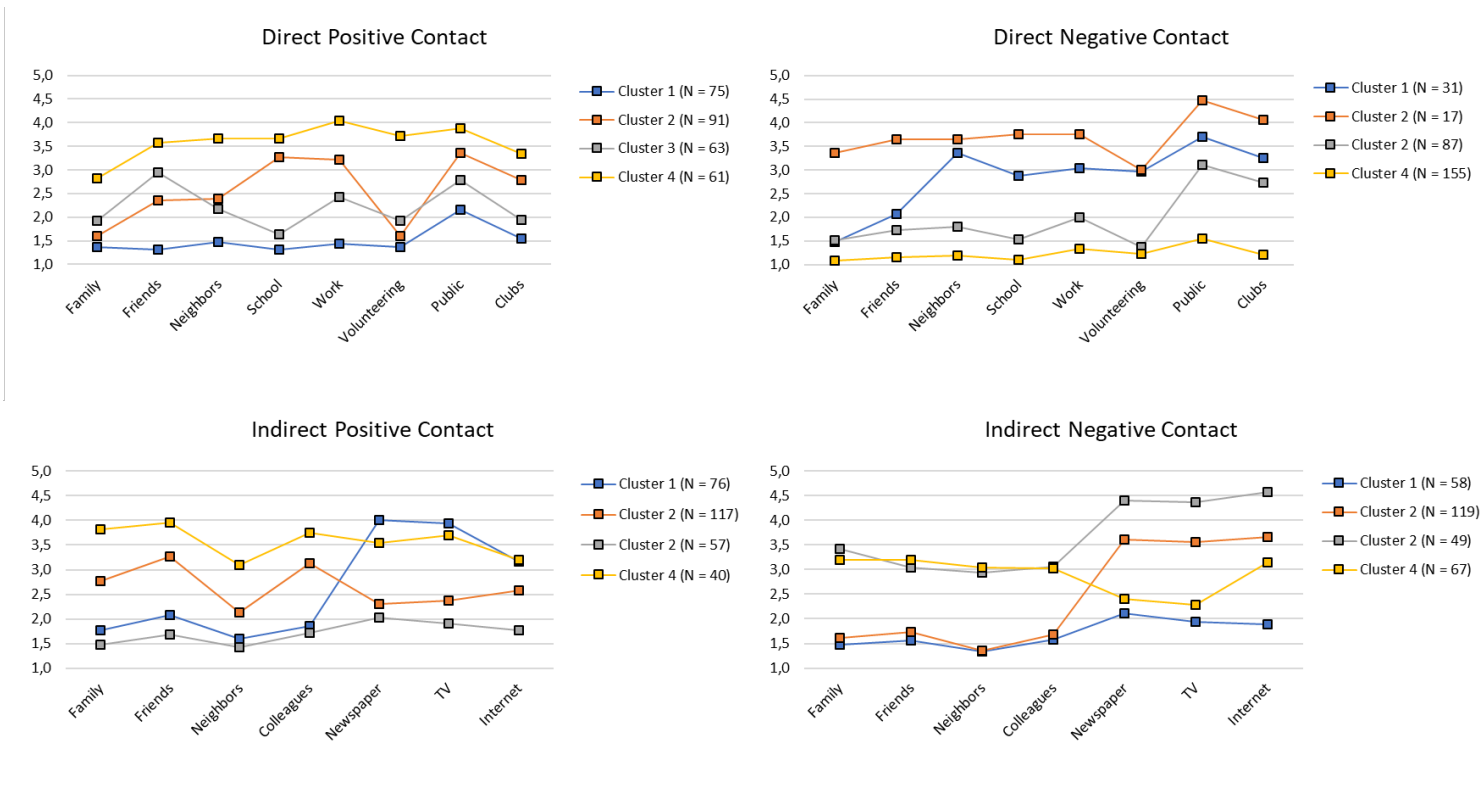


Figure E3. Frequencies of positive and negative direct and indirect contact for each cluster (Study 3)



Trust and Closeness Scales

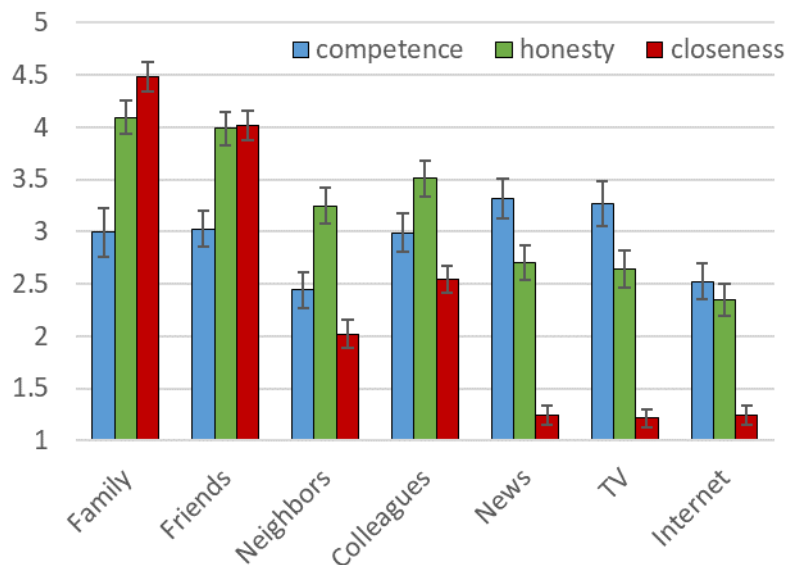
In addition to the scales reported in the manuscript, we assessed context-specific trust, context-specific closeness, and individual differences in general trust in Study 2 and Study 3.

Context-specific trust. In line with the two-dimensional concept of trust (Hovland, Janis, Kelley, 1953), trust was assessed via perceived competence and honesty. Participants indicated how competent (Item 1) and honest (Item 2) with respect to refugees their family members, friends, neighbors, colleagues, newspaper journalists, TV journalists and internet contacts are on scales ranging from 1 (*not at all*) to 5 (*very much*). As combining the two components of trust (i.e., competence and honesty) resulted in low reliability (α between .41 and .69), they were considered as separate predictors.

Context-specific closeness. We used a 5-point version of the Inclusion of Others in the Self Scale (IOS; Aron, Aron, & Smollan, 1992) to assess perceived closeness to persons from different groups (i.e., *family, friends, neighbors, colleagues, newspaper journalists, TV journalists, internet contacts, people encountered in the volunteer context, people in public, people encountered while going out, refugees*). The IOS diagrams depict one circle representing the participant and one circle representing the other person, ranging from no overlap to almost complete overlap.

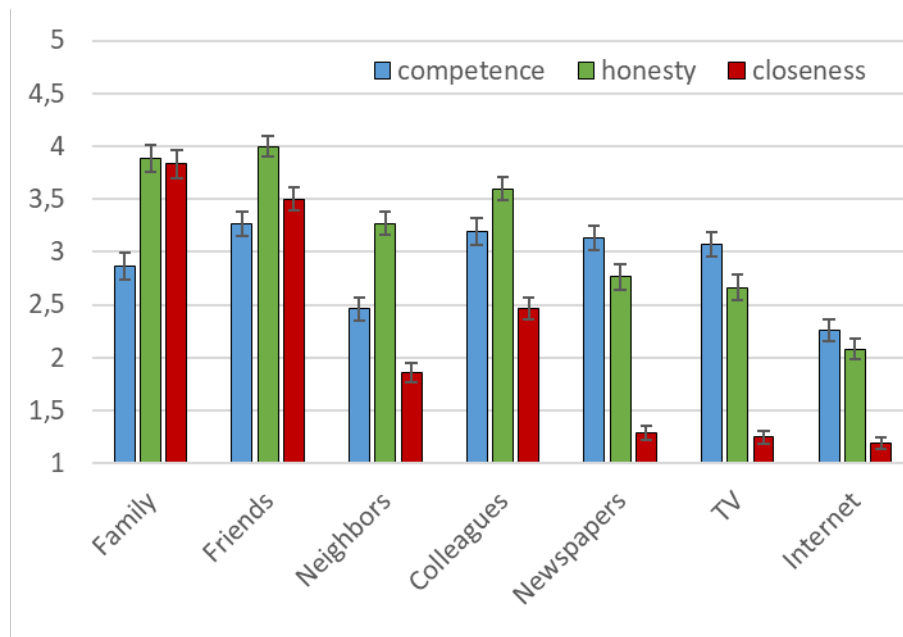
Individual differences in general trust. Participants' general tendency to trust others was assessed with the Short Scale of Interpersonal Trust (Beierlein, Kemper, Kovaleva, & Rammstedt, 2012). Participants indicated their agreement with three items (i.e., *I'm convinced that most people have good intentions; It is not possible to rely on others anymore* (reverse coded); *Most people can be trusted*) on scales ranging from 1 (*not at all*) to 5 (*completely*) ($\alpha = .72$).

Figure E4. Perceived competence, honesty, and closeness in the different contexts (Study 2)



Note. Means and 95% confidence intervals are depicted.

Figure E5. Perceived competence, honesty, and closeness in the different contexts (Study 3)



Note. Means and 95% confidence intervals are depicted.

As shown in Figures S4-S5 competence, honesty, and closeness varied between the contexts. Family and friends were perceived as closest, followed by colleagues and neighbors, whereas news, TV, and the internet were perceived as less close. Similarly, family and friends were perceived as most honest, followed by colleagues and neighbors, whereas the media was perceived as least honest. By contrast, news and TV were rated as most competent, followed by family members, friends, and colleagues, whereas neighbors and the internet were rated as least competent. These differences in perceived competence, honesty, and closeness may account for the context effects on the associations between indirect contact with refugees and attitudes towards refugees.

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63(4), 596–612. doi:10.1037//0022-3514.63.4.596

Beierlein, C., Kemper, C. J., Kovaleva, A., & Rammstedt, B. (2012). Die Kurzskala Interpersonales Vertrauen (KUSIV3) [Short scale of interpersonal trust]. *GESIS Working Papers 2012|22*. Retrieved from https://www.gesis.org/fileadmin/_migrated/content_uploads/KUSIV3_Workingpaper.pdf

Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion*. New Haven: Yale University Press.