



Can identity fusion foster social harmony? Strongly fused individuals embrace familiar outgroup members unless threatened[☆]

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ABSTRACT

Past research has established that people whose identities are deeply aligned (“fused”) with a group endorse hostility toward distant outgroups (e.g., foreigners). We propose that identity fusion can have the opposite effect under certain conditions. Specifically, when the outgroup is familiar and non-threatening, strongly fused persons may be positively disposed toward its members. Four studies tested this hypothesis. In the baseline control conditions, strongly fused participants expressed more positive sentiments toward familiar outgroup members than weakly fused participants (Experiments 1–3). Only after any of three distinct forms of negative intergroup contact (direct, extended, and depersonalized extended) did strongly fused persons denigrate familiar outgroup members. This effect replicated in a prospective study (Experiment 4). These findings support Klein and Bastian’s (2022) contention that identity fusion can serve as a secure base that encourages cooperation with members of non-threatening familiar outgroups.

Identity fusion—a visceral feeling of oneness with a group—indisputably has a dark side. Considerable evidence, for example, has linked high levels of identity fusion to violence and aggression against outgroups (e.g., Fredman et al., 2015; Gómez et al., 2020). While acknowledging the dark side of fusion, in this report we explore its light side. We focus specifically on the impact of fusion on perceptions of familiar outgroups, those outgroups with whom ingroup members have direct contact on a routine basis. We propose that ordinarily, strongly fused persons are positive toward familiar outgroups and it is only when threatened that they become hostile and aggressive. To better understand this hypothesis, we turn first to conceptual analysis of the construct from which it sprang: identity fusion (Swann Jr., Jetten, Gómez, Whitehouse, & Bastian, 2012).

1. Identity fusion and intergroup relations

Identity fusion is one of several forms of alignment with groups. It is distinct from group identification (see Gómez et al., 2020), a construct often associated with social identity approaches to intergroup relations (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell,

1987). According to these approaches, group behavior is primarily determined by social identity (as opposed to personal identity) and the valuation of fellow group members hinges on their similarity to the group prototype rather than their idiosyncratic characteristics. In contrast, identity fusion highlights different aspects of group membership. In addition to collective ties, identity fusion also emphasizes the role of the personal self and relational ties to other group members (for a discussion and empirical evidence, see Gómez et al., 2019). For strongly fused individuals, their personal selves remain active and agentic in group-related situations, allowing personal and social identities to combine synergistically to motivate pro-group actions (Swann Jr., Gómez, Seyle, Morales, & Huici, 2009). In addition, their strong relational ties to other members of the group create a moral obligation to defend these members (Swann Jr. et al., 2014).

Fusion theory’s unique emphasis on three distinct motivators of pro-group behavior (the personal self, relational and collective ties) may explain why it has spawned measures that are exceptionally strong predictors of extreme pro-group behavior. In dozens of studies and including samples from five continents, fusion has out-predicted identification, whether the outcome is endorsement of fighting and dying for

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ingroup members (Gómez et al., 2011; Swann Jr. et al., 2009), choosing self-sacrifice to save imperiled ingroup members in variations of the trolley dilemma (Gómez et al., 2011; Swann Jr, Gómez, Dovidio, Hart, & Jetten, 2010; Swann Jr., Gómez, et al., 2014), donating personal funds to group members under duress (Buhrmester, Fraser, Lanman, Whitehouse, & Swann Jr., 2015; Swann Jr, Gómez, Huici, Morales, & Hixon, 2010), undergoing painful gender-affirming surgery (Swann Jr. et al., 2015), and so on (for reviews, see Fredman et al., 2015; Gómez et al., 2020; Swann Jr. & Buhrmester, 2015).

Researchers have also highlighted the role of fusion theory's unique predictors—relational ties and the personal self—in mediating and moderating identity fusion's relationship to relevant measures. For example, fusion scores uniquely predicted the strength of relational ties to other group members (e.g., Vázquez, Gómez, & Swann Jr., 2017). Also, relational ties mediated the link between fusion and sacrifice for the group (e.g., Buhrmester et al., 2015; Swann Jr. et al., 2014) and degradations of relational ties uniquely predicted diminutions in fusion and its consequences (Gómez et al., 2019). Similarly, increasing the salience of the personal self either through physical exercise (Swann Jr, Gómez, Huici, et al., 2010) or writing about the self (Gómez et al., 2011; Swann Jr. et al., 2009) amplified the influence of fusion on endorsement of pro-group behaviors such as fighting and dying for the group. The foregoing patterns did not emerge when identification was the predictor. Finally, a gut-level emotional reaction in response to threats to the group, coupled with a perception that fellow group members possess a shared essence with one another (akin to family members), appears to motivate the effects of fusion on willingness to sacrifice for the group (Swann Jr., Buhrmester, et al., 2014; Swann Jr., Gómez, et al., 2014).

The propensity for strongly fused persons to endorse outcomes such as fighting and dying for the ingroup has prompted efforts to specify the variables that are likely to incite strongly fused individuals to aggress against outgroups. One such variable is perceived threat. For example, fusion with a political leader (Donald Trump) was associated with willingness to persecute two groups that Trump identified as threats—Muslims and immigrants (Kunst, Dovidio, & Thomsen, 2019). Similarly, a survey of Brazilian soccer fans revealed that perception of outgroup threats amplified the relationship between fusion with the team and fan violence (Newson et al., 2018). Finally, a prospective study of Israelis examined the impact of the 2015 stabbing intifada on retaliatory activity against Palestinians. The threat introduced by the intifada bolstered the relationship between fusion with Judaism and endorsement of retaliation against Palestinians (Fredman, Bastian, & Swann Jr., 2017).

Despite this evidence for a link between identity fusion and endorsement of violence, there is no evidence that fusion is linked to trait-aggressiveness (Gómez et al., 2011; cf. Brewer, 1999). Furthermore, even when threatened, strongly fused persons prefer non-violent over violent methods of defending the group and resort to violence only when it is morally justifiable (Chinchilla, Vázquez, & Gómez, 2021) or when they perceive that the ingroup's essence is at stake (Buhrmester, Newson, Vázquez, Hattori, & Whitehouse, 2018). In this article, we extend the notion that identity fusion is intrinsically benign by proposing that increments in fusion will be associated with more positive evaluations of familiar outgroup members as long as such outgroup members are non-threatening (for a discussion of familiar/local versus distant outgroups, see Bouman, van Zomeren, & Otten, 2014).

Why might identity fusion be associated with benevolence toward members of familiar outgroups? In part, this effect may grow out of fusion to the ingroup. That is, for strongly fused persons, the conviction that fellow group members will assist in protecting the group (Heger & Gaertner, 2018) will contribute to perceptions of reciprocal strength (Swann Jr. et al., 2012). Support from the ingroup predicts lower intergroup anxiety and improved outgroup perceptions (Stevenson, Costa, Easterbrook, McNamara, & Kellezi, 2020) and contributes to a “secure base schema” (e.g., Klein & Bastian, 2022) that fosters feelings of safety, agency, and invulnerability (Gómez et al., 2011; Vázquez, López-

Rodríguez, Martínez, Atran, & Gómez, 2020). In addition, when strongly fused persons repeatedly cross paths with members of familiar outgroups (i.e., outgroups with whom fused persons routinely interact), they may develop relational ties to them. Relational ties to outgroup members may reduce intergroup competition (e.g., Brewer & Chen, 2007) and foster positive sentiments toward outgroup members (Newson et al., 2018). In short, together with the secure base schema, relational ties to familiar outgroup members will quell fears that members of familiar outgroups will harm them and instead encourage the development of cooperative relationships with such individuals.

Of course, all bets are off when members of familiar outgroups are believed to pose a threat to the ingroup. When, for example, strongly fused persons experience negative contact with a member of a familiar outgroup, they will enact protective actions that may manifest as hostility. The intergroup contact literature specifies why this might be so.

2. Identity fusion and intergroup contact

Since Allport (1954) proposed the contact hypothesis, numerous researchers have reported that positive intergroup contact (involving cooperation, common goals, equal status, and support of authorities) can reduce intergroup wariness and prejudice (for reviews, see Pettigrew & Tropp, 2006; Paluck, Green, & Green, 2019; Paolini et al., 2021). Researchers have devoted far less attention to the effects of negative contact. This is surprising given that negative contact appears to have more impact on prejudice than positive contact (Barlow et al., 2012; Graf, Paolini, & Rubin, 2014, 2020; Kotzur & Wagner, 2021). One reason for the outsized power of negative contact may be its tendency to increase the category salience of outgroup members (Paolini, Harwood, & Rubin, 2010), especially when such outgroup members are stigmatized (Paolini & McIntyre, 2019). Whatever the cause of its unique power, it is clear that negative contact can poison intergroup relations (Dixon, Durrheim, & Tredoux, 2005; Schäfer et al., 2021).

Researchers have identified and examined several forms of negative (and positive) intergroup contact (Árnadóttir, Lolliot, Brown, & Hewstone, 2018; Mazziotta, Rohmann, Wright, De Tezanos-Pinto, & Lutterbach, 2015; Vedder, Wenink, & van Geel, 2017). In this report, we focus on three types of negative contact. As the label implies, *direct* contact involves (memories of) face-to-face interactions with members of the outgroup (e.g. Mazziotta et al., 2015; Paolini et al., 2010; Schäfer et al., 2021). *Extended* contact occurs when one learns that a specific member of one's own group has had a relationship with a member of an outgroup (e.g., Mazziotta et al., 2015). Finally, *depersonalized extended* contact occurs when one learns that ingroup members have particular type of relationships (i.e., positive or negative) with outgroup friends (Gómez, Tropp, Vázquez, Voci, & Hewstone, 2018).

We asked if, relative to a no-contact baseline control condition, these three forms of negative contact (direct, extended, and depersonalized extended) would moderate the relationship between identity fusion and reactions to familiar outgroup members. To this end, we conducted four experiments. Participants were Spaniards, the target of fusion was Spain, and the outgroup was either immigrants or Roma. We examined the effects of direct contact in Experiment 1, extended contact in Experiment 2, and depersonalized extended contact in Experiments 3–4. The outcome measure included sentiments of warmth/hostility. In all experiments we controlled for prior intergroup contact. Our primary hypothesis was that in the no-contact control conditions, increments in fusion would be associated with relatively benign sentiments to outgroup members, but that in the negative contact conditions, increments in fusion would be associated with hostile sentiments to outgroup members.

3. Experiment 1: Direct negative contact moderates the effect of fusion on sentiments toward outgroup members

Experiment 1 examined whether direct negative contact affected the

relationship between identity fusion and sentiments of warmth/hostility toward immigrants. To this end, after measuring fusion with the country we manipulated direct negative contact. We then assessed sentiments toward immigrants. We expected that fusion would be associated with warmer sentiments in the no-contact condition but more hostility in the direct negative contact condition.

3.1. Method

3.1.1. Transparency and openness

We report all data exclusions, all manipulations, and all measures in the studies. Data were analyzed using SPSS, version 25. The designs and the analyses were not pre-registered. Data collection was not continued after data analysis. All data, code, codebook, and materials have been made publicly available at OSF and can be accessed at https://osf.io/aqkub/?view_only=39b49bcd22de4c5498126475a19e0804

In the absence of prior evidence, we did not determine the sample size a priori in any of the studies. However, we conducted sensitivity analyses using GPower (Faul, Erdfelder, Buchner, & Lang, 2009) to determine the minimum effect size that could be detected with our final sample sizes in a linear bivariate regression (difference between slopes).

3.1.2. Participants

Participants in Studies 1–3 were recruited using a snowball technique. As part of a practice for which they received course credits, Psychology students invited eight of their acquaintances (non-students) to participate in an online survey about intergroup relations. Five hundred and thirty-eight Spaniards (62.1% women, $M_{age} = 35.17$, $SD = 12.97$) participated in Study 1 on a voluntary basis. A sensitivity analysis (linear bivariate regression: difference between slopes) using GPower (Faul et al., 2009) revealed that, considering an alpha level of 0.05 and 80% power, with $n_{control} = 259$ and $n_{contact} = 279$ (residual $\sigma = 0.87$, $\sigma_{x_1} = 1.20$, $\sigma_{x_2} = 1.33$), we could detect a difference between slopes of $b = 0.15$.

3.1.3. Procedure

Participants in Studies 1–3 received an email from an acquaintance (a Psychology study) inviting them to participate in an online survey about intergroup relations. After reading the information sheet and granting consent, participants first completed measures of prior contact with the outgroup. Following Gómez et al. (2018), we included quantity and quality of direct contact, extended contact and cross-group friendship.

Quantity of direct contact was assessed with a 4-item scale (e.g., “How often do you have contact with immigrants in your neighborhood”) ranging from 0 (Never) to 6 (Very often), $\alpha = 0.87$.

Quality of direct contact was assessed with a 7-item scale (e.g., “How often do you feel welcomed when you have contact with immigrants”), ranging from 0 (Never) to 6 (Very often), $\alpha = 0.69$.

Cross-group friendship was assessed with two items (“How many immigrant friends do you have?”), and “How many friends of your age are immigrants?”), ranging from 0 (none) to 5 (>10), $r(536) = 0.81$, $p < .001$.

Extended contact was assessed with four items (“How many Spaniards do you know, in general, who have at least one immigrant friend?”), ranging from 0 (none) to 5 (>10), $\alpha = 0.93$.

Participants then completed the verbal measure of identity fusion with the country (Gómez et al., 2011). Responses ranged from 0 (Strongly disagree) to 6 (Strongly agree). Example items are “I am one with my country,” “My country is me,” “I am strong because of my country” and “I make my country strong”, $\alpha = 0.89$.

After completing the fusion measure, participants were randomly assigned to the direct negative contact ($n = 279$) or to the control ($n = 259$) condition. Participants in the direct negative contact condition were asked to describe a negative experience that they personally had with immigrants and explain how they felt in that situation. Examples of such

experiences were “Because of my job I have to deal with immigrants every day. They often try to impose their norms and laws here and they do not obey ours. When we try to explain something to them they do not take us seriously and sometimes they threaten us”; or “When I was walking in a park, a group of immigrant boys tried to steal from me. I felt physically threatened, with fear, helplessness and unprotected.” Participants in the control condition described their last two trips to their job or school.

After the manipulation, participants reported their sentiments of warmth/hostility toward immigrants on four bipolar thermometers (warm/cold, friendly/hostile, respect/contempt, and admiration/disgust). Scores ranged from 1 to 5 with higher scores indicating more hostility, $\alpha = 0.87$.

3.2. Results and discussion

3.2.1. Preliminary analyses

In this experiment and all subsequent experiments in this report we conducted ANOVAs on the contact variables, fusion, and identification (Studies 2–4) to ensure that there were no pre-existing differences between the experimental conditions. None of these analyses yielded significant effects as Table 1 shows.

3.2.2. Correlational analysis

Table 2 shows means, standard deviations, and correlations for the prior contact measures, identity fusion and the dependent variables in all-four studies. Overall, the correlations between the measures of fusion and prior contact were negligible to modest.

3.2.3. Main analyses

To determine whether the contact manipulations moderated the effect of fusion on sentiments toward immigrants, we conducted linear regression analyses in all studies using the module GAMLj in Jamovi (version 2.3). The predictors in Study 1 were fusion (mean centered),

Table 1
Experiments 1–4. ANOVAS on the contact variables, fusion, and identification.

	df ₁	df ₂	F	p	η_p^2
Study 1					
Quantity of direct contact	1	536	1.65	0.200	0.003
Quality of direct contact	1	536	0.48	0.489	0.001
Friendship	1	536	0.03	0.860	<0.001
Extended contact	1	536	0.74	0.390	0.001
Fusion	1	536	1.21	0.272	0.002
Study 2					
Quantity of direct contact	1	317	0.66	0.417	0.002
Quality of direct contact	1	317	2.49	0.116	0.008
Friendship	1	317	0.65	0.420	0.002
Extended contact	1	317	0.00	0.987	<0.001
Fusion	1	317	0.31	0.576	0.001
Identification	1	317	0.38	0.536	0.001
Study 3					
Quantity of direct contact	1	161	0.51	0.822	<0.001
Quality of direct contact	1	161	0.63	0.430	0.004
Friendship	1	161	1.14	0.288	0.007
Extended contact	1	161	0.07	0.799	<0.001
Fusion	1	161	0.58	0.448	0.004
Identification	1	161	1.63	0.204	0.010
Study 4					
Quantity of direct contact	1	107	1.76	0.187	0.016
Quality of direct contact	1	107	2.23	0.138	0.020
Friendship	1	107	0.03	0.872	<0.001
Extended contact	1	107	0.02	0.901	<0.001
Fusion	1	107	0.63	0.430	0.006
Identification	1	107	0.34	0.563	0.003

Table 2
Experiments 1–4. Correlations.

Study	Variables	M	SD	1.	2.	3.	4.	5.	6.
1	1. Quantity	3.70	1.59	–					
	2. Quality	1.27	0.57	0.52***	–				
	3. Friendship	1.46	1.19	0.61***	0.43***	–			
	4. Direct contact	2.34	1.24	0.55***	0.41***	0.65***	–		
	5. Fusion	2.09	1.27	–0.04	–0.02	–0.06	–0.05	–	
	6. Sentiments	2.28	0.90	–0.22***	–0.09*	–0.21***	–0.14**	0.14**	–
	7. Sentiments	2.28	0.90	–0.22***	–0.09*	–0.21***	–0.14**	0.14**	–
2	1. Quantity	1.45	1.34	–					
	2. Quality	2.12	0.72	0.29***	–				
	3. Friendship	1.14	0.68	0.39***	0.24***	–			
	4. Extended contact	1.53	0.93	0.40***	0.22***	0.60***	–		
	5. Fusion	1.69	1.30	0.01	–0.05	–0.08	–0.01	–	
	6. Identification	2.54	1.46	–0.90	–0.67	–0.46	–0.01	0.64***	–
	7. Sentiments	2.83	0.91	–0.11*	–0.44***	–0.11 [†]	–0.10	0.08	0.04
3	1. Quantity	2.90	1.49	–					
	2. Quality	1.35	0.54	–0.18*	–				
	3. Friendship	2.35	3.21	0.47***	–0.14	–			
	4. DEC	7.25	8.86	0.39***	–0.07	0.55**	–		
	5. Fusion	1.69	1.40	0.11	0.04	0.00	0.00	–	
	6. Identification	2.59	1.43	–0.06	0.10	–0.02	–0.01	0.46***	–
	7. Sentiments	2.59	0.83	–0.14	0.34***	–0.10	–0.15*	0.07	0.10
4	1. Quantity	3.29	1.59	–					
	2. Quality	2.68	0.62	0.24**	–				
	3. Friendship	2.13	2.43	0.40***	0.24*	–			
	4. DEC	6.43	5.94	0.37***	0.30**	0.61***	–		
	5. Fusion	1.37	1.17	0.06	–0.13	0.15	0.11	–	
	6. Identification	2.15	1.43	–0.14	–0.11	–0.05	0.01	0.36***	–
	7. Sentiments	2.30	0.74	–0.27**	–0.31**	–0.29**	–0.26**	–0.05	0.15

Notes. *** $p < .001$; ** $p < .01$; * $p < .05$; [†] $p = .060$. DEC = Depersonalized extended contact.

condition (0 control, 1 negative contact) and the 2-way interaction between fusion and condition. Following Gómez et al. (2018), in all studies the regression analyses were conducted both with and without controlling for the main effects of prior contact variables (quantity and quality of direct contact, friendship, and extended contact) and they yielded virtually identical results. For the sake of simplicity, we excluded prior contact as covariates in the primary analyses presented in the manuscript. The results controlling for the main effects of prior contact variables for all studies are presented in the supplementary materials (section 1), however.

The interaction between fusion and condition was significant, $b = 0.29$, CI 95% [0.17, 0.41], $\beta = 0.41$, $se = 0.06$, $t(534) = 4.85$, $p < .001$, $\eta_p^2 = 0.04$. To test our prediction that fusion would be associated with warmer sentiments in the control condition but with more hostility in the direct negative contact condition, condition was considered as the moderator and simple slopes analyses tested the effect of fusion (predictor) on attitudes (dependent variable) for each condition (moderator). As shown in Fig. 1, simple slopes analyses indicated that fusion predicted more hostility toward the outgroup in the negative contact condition, $b = 0.23$, CI 95% [0.15, 0.31], $\beta = 0.32$, $se = 0.04$, $t(534) =$

5.84, $p < .001$, $\eta_p^2 = 0.06$, but there was a non-significant trend in the opposite direction in the control condition, $b = -0.06$, CI 95% [–0.15, 0.03], $\beta = -0.09$, $se = 0.05$, $t(534) = -1.35$, $p = .178$, $\eta_p^2 = 0.003$.

The main effect of condition was also significant, $b = 0.23$, CI 95% [0.09, 0.38], $\beta = 0.26$, $se = 0.08$, $t(534) = 3.11$, $p = .002$, $\eta_p^2 = 0.02$, whereas the main effect of fusion was not, $b = -0.06$, CI 95% [–0.15, 0.03], $\beta = -0.09$, $se = 0.05$, $t(534) = -1.35$, $p = .178$, $\eta_p^2 < 0.01$.

The results of Experiment 1 confirmed our hypothesis that direct negative contact would strengthen the positive relationship between fusion and hostility toward immigrants. In contrast, in the absence of contact, fusion was slightly but non-significantly related to warm sentiments toward immigrants. To determine if this pattern was robust, we conducted a second experiment in which we manipulated extended negative contact. In addition, to further test the generality of our findings, we focused on a different low status group, Roma (called “Gitanos”, Gypsies in Spanish), an ethnic minority that is strongly stigmatized in Spain (e.g., Navas & Cuadrado, 2012). This minority includes people of Spanish nationality and immigrants from Eastern Europe, mainly Romania. Although they may be Spaniards, they are often treated as “internal strangers” (Mendes & Magano, 2022) in a way that is comparable to, but even more negative than, how immigrants are treated. In fact, Spaniards are more reluctant to have Roma as neighbors than other minority groups such as immigrants or Muslims (Centro de Investigaciones Sociológicas [CIS], 2013). Importantly, to check if our effects were exclusive to fusion or if they apply to other forms of alignments with groups, we included a measure of group identification (Tajfel & Turner, 1979; Turner et al., 1987).

4. Experiment 2: Extended negative contact moderates the effect of fusion on sentiments toward outgroup members

Experiment 2 asked whether extended negative contact fosters a positive relationship between fusion and denigration of Roma, but not between identification and denigration. We expected that in the absence of extended negative contact, increments in fusion would be associated with warmer sentiments toward Roma but that in the presence of extended negative contact, increments in fusion would be associated

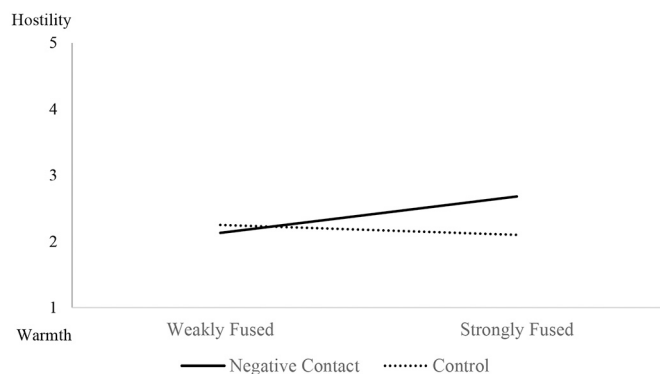


Fig. 1. Sentiments toward immigrants as a function of identity fusion and experimental condition.

with increments in hostile sentiments toward Roma. In contrast, we do not anticipate an interaction between identification and negative contact.

4.1. Method

4.1.1. Participants

We recruited 320 volunteers (60.3% women, $M_{\text{age}} = 35.32$, $SD = 11.54$) using a snowball technique. A sensitivity analysis (linear bivariate regression: difference between slopes) using GPower (Faul et al., 2009) revealed that, considering an alpha level of 0.05 and 80% power, with $n_{\text{control}} = 161$ and $n_{\text{contact}} = 159$ (residual $\sigma = 0.83$, $\sigma_{x_1} = 1.23$, $\sigma_{x_2} = 1.38$), we could detect a difference between slopes of $b = 0.17$.

4.1.2. Procedure

Participants began by completing the same measures of prior contact used in Experiment 1 [quantity and quality of direct contact, $\alpha = 0.80$ and 0.78, extended contact, $\alpha = 0.93$, and cross-group friendship, $r(318) = 0.91$, $p < .001$], as well as the 7-item scale of identity fusion, $\alpha = 0.89$. In Studies 2–4 participants also completed the 4-item identity subscale of Luhtanen and Crocker's (1992) collective self-esteem scale. Responses ranged from 0 (*Strongly disagree*) to 6 (*Strongly agree*), $\alpha = 0.76$. Then, participants were randomly assigned to the extended negative contact ($n = 159$) or the control ($n = 161$) condition. Participants in the *extended negative contact condition* were asked to recall and describe a negative encounter with Roma that a close friend or family member had experienced and that made them feel threatened. Examples of such experiences were: "Suffering a robbery under threat of a lethal weapon by a Roma. The affected person felt fear and was slightly injured. He gave everything he had after struggling" and "At high school a group of Roma girls attacked our group for no apparent reason. We felt fear." Participants in the *control condition* proceeded directly to the remainder of the questionnaire.

Finally, participants completed the same measures of sentiments (warmth/hostility) toward the outgroup as in Experiment 1, $\alpha = 0.87$.

4.2. Results and discussion

To determine if the contact manipulation influenced the relationship of fusion and identification with sentiments of warmth/hostility toward Roma, we conducted a regression analysis. The predictors were fusion (centered), identification (centered), condition (0 control, 1 negative extended contact), the two-way interaction between fusion and condition and the two-way interaction between identification and condition.

A significant interaction between fusion and condition emerged, $b = 0.48$, CI 95% [0.29, 0.67], $\beta = 0.69$, $se = 0.09$, $t(314) = 5.09$, $p < .001$, $\eta_p^2 = 0.08$. To test our prediction that fusion would be associated with warmer sentiments in the control condition but with more hostility in the extended negative contact condition, condition was considered as the moderator and simple slopes analyses tested the effect of fusion (predictor) on attitudes (dependent variable) for each condition (moderator). As shown in Fig. 2, simple slopes analyses indicated that, in the extended negative contact condition, increments in fusion were associated with more hostility toward Roma, $b = 0.27$, CI 95% [0.15, 0.40], $\beta = 0.39$, $se = 0.06$, $t(314) = 4.46$, $p < .001$, $\eta_p^2 = 0.06$. In contrast, in the no-contact condition, increments in fusion were associated with more warmth toward Roma, $b = -0.21$, CI 95% [-0.35, -0.06], $\beta = -0.29$, $se = 0.07$, $t(314) = -2.87$, $p = .004$, $\eta_p^2 = 0.03$.

The main effects of fusion, $b = -0.21$, CI 95% [-0.35, -0.07], $\beta = -0.29$, $se = 0.07$, $t(314) = -2.87$, $p = .004$, $\eta_p^2 = 0.03$, and condition, $b = 0.47$, CI 95% [0.29, 0.65], $\beta = 0.51$, $se = 0.09$, $t(314) = 5.02$, $p < .001$, $\eta_p^2 = 0.07$, were also significant. The main effect of identification, $b = 0.03$, CI 95% [-0.09, 0.15], $\beta = 0.05$, $se = 0.06$, $t(314) = 0.48$, $p = .635$, $\eta_p^2 < 0.01$, and the interaction effect between identification and condition, $b = -0.05$, CI 95% [-0.22, 0.11], $\beta = -0.08$, $se = 0.08$, $t(314) = -0.60$, $p = .551$, $\eta_p^2 < 0.01$, were not significant.

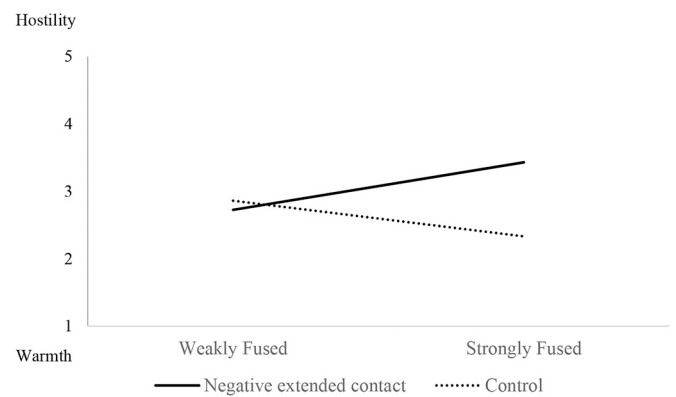


Fig. 2. Sentiments toward Roma as a function of identity fusion and experimental condition.

As in Experiment 1, in the negative extended contact condition, stronger fusion was related to more hostility toward outgroup members. Although the opposite trend—stronger fusion was related to warmer sentiments toward outgroup members—emerged in both studies, it was significant in Experiment 2. Interestingly, identification had no effect on intergroup attitudes. In Experiment 3 we sought to replicate these findings using a different type of intergroup contact, depersonalized extended contact.

5. Experiment 3: Negative depersonalized extended contact moderates the effect of fusion on sentiments toward outgroup members

Depersonalized extended contact (DEC) occurs when one learns about the experiences that ingroup members, in general, have had with outgroup members (Gómez et al., 2018). In this experiment, participants in the negative DEC condition learned that these experiences were negative; those in the no contact condition learned nothing regarding these experiences. As in previous studies, we expected that in the negative contact condition, increments in fusion would be associated with increments in hostility toward outgroup members but that in the no-contact condition, increments in fusion would be associated with warmer sentiments toward outgroup members. We do not anticipate such interaction between identification and negative contact.

5.1. Method

5.1.1. Participants

One hundred and sixty-three Spanish volunteers (50.9% women, $M_{\text{age}} = 38.10$, $SD = 12.95$) recruited by a snowball technique participated on a voluntary basis. A sensitivity analysis (linear bivariate regression: difference between slopes) using Gpower (Faul et al., 2009) revealed that, considering an alpha level of 0.05 and 80% power, with $n_{\text{control}} = 73$ and $n_{\text{contact}} = 90$ (residual $\sigma = 0.75$, $\sigma_{x_1} = 1.35$, $\sigma_{x_2} = 1.44$), we could detect a difference between slopes of $b = 0.21$.

5.1.2. Procedure

Participants began by completing the measures of prior contact used in Experiment 1 [quantity and quality of direct contact, $\alpha = 0.79$ and 0.66, cross-group friendship, $r(161) = 0.65$, $p < .001$, and extended contact, $\alpha = 0.93$]. They then completed an abbreviated, four-item measure of identity fusion, $\alpha = 0.84$, and the same measure of identification as in Study 2, $\alpha = 0.73$.

We randomly assigned participants to the negative DEC ($n = 90$) or control ($n = 73$) condition. All participants read that during the last 24 months, our university had conducted research with 8000 Spaniards and 1500 immigrants to examine the relationship between Spaniards and immigrants. Participants in the *negative DEC condition* learned that this

research showed that 70% of Spaniards had some kind of relationship with more than two immigrants, but that those relationships were negative, following Gómez et al. (2018). Participants in the *control condition* were told that they would need to wait until the end of the study to see the results. Finally, participants completed the same measures of sentiments toward the outgroup as in Experiment 1, $\alpha = 0.84$.

5.2. Results and discussion

To determine if contact moderated the effect of fusion and identification on sentiments toward immigrants, we conducted a regression analysis. The predictors were fusion (centered), identification (centered), condition (0 control, 1 negative DEC) the two-way interaction between fusion and condition, and the two-way interaction between identification and condition.

A significant interaction between fusion and condition emerged, $b = 0.55$, CI 95% [0.37, 0.74], $\beta = 0.94$, $se = 0.09$, $t(157) = 5.96$, $p < .001$, $\eta_p^2 = 0.18$. To test our prediction that fusion would be associated with warmer sentiments in the control condition but with more hostility in the negative DEC condition, condition was considered as the moderator and simple slopes analyses tested the effect of fusion (predictor) on attitudes (dependent variable) for each condition (moderator). As displayed in Fig. 3, simple slopes analyses indicated that in the negative contact condition, increments in fusion were associated with more hostility toward immigrants, $b = 0.27$, CI 95% [0.15, 0.39], $\beta = 0.46$, $se = 0.06$, $t(157) = 4.32$, $p < .001$, $\eta_p^2 = 0.11$. In contrast, in the no-contact condition, stronger fusion was associated with more warmth toward immigrants, $b = -0.28$, CI 95% [-0.42, -0.15], $\beta = -0.48$, $se = 0.07$, $t(157) = -4.13$, $p = .001$, $\eta_p^2 = 0.10$.

Surprisingly, the interaction between identification and condition was also significant, but in the opposite direction as compared to the interaction between fusion and condition, $b = -0.31$, CI 95% [-0.48, -0.13], $\beta = -0.53$, $se = 0.06$, $t(157) = -3.39$, $p < .001$, $\eta_p^2 = 0.07$. Simple slopes analyses showed that, in the negative contact condition, increments in identification were associated with more warmth toward immigrants, $b = -0.13$, CI 95% [-0.26, -0.004], $\beta = -0.23$, $se = 0.07$, $t(157) = -2.03$, $p = .044$, $\eta_p^2 = 0.03$. In contrast, in the no-contact condition, stronger identification was associated with more hostility toward immigrants, $b = 0.17$, CI 95% [0.05, 0.30], $\beta = 0.30$, $se = 0.06$, $t(157) = 2.79$, $p = .006$, $\eta_p^2 = 0.05$.

Finally, main effects of fusion, $b = -0.28$, CI 95% [-0.42, -0.15], $\beta = -0.48$, $se = 0.07$, $t(157) = -4.13$, $p < .001$, $\eta_p^2 = 0.10$, identification, $b = 0.17$, CI 95% [0.05, 0.30], $\beta = 0.30$, $se = 0.06$, $t(157) = 2.79$, $p = .006$, $\eta_p^2 = 0.05$, and condition, $b = 0.44$, CI 95% [0.21, 0.67], $\beta = 0.53$, $se = 0.12$, $t(157) = 3.81$, $p < .001$, $\eta_p^2 = 0.09$, were also significant.

As in the first two experiments, in the negative contact condition, stronger fusion was related to more hostility toward outgroup members. In contrast, in the no-contact condition, stronger fusion was linked to

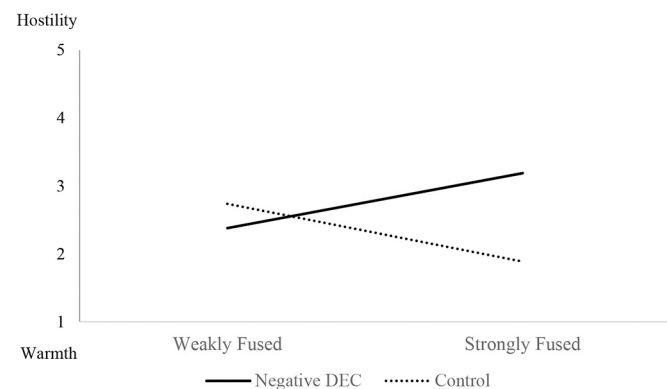


Fig. 3. Sentiments toward immigrants as a function of identity fusion and experimental condition.

more warmth toward outgroup members. In the case of identification, an intriguing pattern appeared, contrary to our predictions and inconsistent with the results of the previous study. In Experiment 4 we sought to replicate the findings concerning fusion and clarify the role of identification using a prospective design.

6. Experiment 4: Depersonalized extended negative contact moderates the effect of fusion on sentiments toward outgroup members prospectively

Experiment 4 was conducted to determine if negative depersonalized extended contact (DEC) influences the relationship of fusion and identification (assessed in wave 1) to warmth toward immigrants (assessed one month later). As in previous studies, we expected that in the negative contact condition, increments in fusion would be associated with increments in hostile reactions toward outgroup members but that in the no-contact condition, increments in fusion would be associated with warmer reactions toward outgroup members. We do not anticipate such interaction between identification and negative contact.

6.1. Method

6.1.1. Participants

One hundred and nineteen Spanish participants (59.5% women, $M_{age} = 31.72$, $SD = 10.01$) participated in wave 1 and 109 participants (59.6% women, $M_{age} = 31.72$, $SD = 10.01$) participated in wave 2 for course credits. Participants were Psychology students enrolled in a distance learning university. This participant pool differs from typical college students in that they are older, are often employed and reside in all regions of Spain, including rural as well as urban areas. A sensitivity analysis (linear bivariate regression: difference between slopes) using Gpower (Faul et al., 2009) revealed that, considering an alpha level of 0.05 and 80% power, with $n_{control} = 58$ and $n_{contact} = 51$ (residual $\sigma = 0.70$, $\sigma_{x_1} = 1.24$, $\sigma_{x_2} = 1.07$), we could detect a difference between slopes of $b = 0.29$ regarding sentiments.

6.1.2. Procedure

In the first wave, participants completed the same measures of prior contact as in Experiment 1 [quantity and quality of direct contact, $\alpha = 0.80$ and 0.73, extended contact, $\alpha = 0.94$, and cross-group friendship, $r(107) = 0.71$, $p < .001$]. They then completed the same abbreviated measure of identity fusion ($\alpha = 0.75$) and the identification scale ($\alpha = 0.76$) both used in Experiment 3. One month later, participants received an email to participate in the second wave of the research. They then were randomly assigned to the negative DEC ($n = 51$) or control condition ($n = 58$) as in Experiment 3.

Finally, participants completed the same measures of sentiments toward the outgroup as in Experiment 1, $\alpha = 0.83$, and another exploratory variable that can be consulted in supplementary materials (section 2).

6.2. Results and discussion

We conducted a regression analysis to determine if contact moderated the effect of fusion and identification on sentiments toward immigrants. The predictors were fusion (centered), identification (centered), condition (0 control, 1 negative DEC), the two-way interaction between fusion and condition, and the two-way interaction between identification and condition.

A significant interaction between fusion and condition emerged, $b = 0.50$, CI 95% [0.25, 0.74], $\beta = 0.78$, $se = 0.12$, $t(103) = 4.00$, $p < .001$, $\eta_p^2 = 0.13$. To test our prediction that fusion would be associated with warmer sentiments in the control condition but with more hostility in the negative DEC condition, condition was considered as the moderator and simple slopes analyses tested the effect of fusion (predictor) on attitudes (dependent variable) for each condition (moderator). Simple

slopes analyses indicated that, in the negative contact condition, increments in fusion were associated with more hostility toward immigrants, $b = 0.22$, CI 95% [0.03, 0.41], $\beta = 0.35$, $se = 0.09$, $t(103) = 2.33$, $p = .022$, $\eta_p^2 = 0.05$. On the other hand, in the no-contact condition, stronger fusion was associated with warmer sentiments toward immigrants, $b = -0.27$, CI 95% [-0.43, -0.12], $\beta = -0.43$, $se = 0.08$, $t(103) = -3.44$, $p < .001$, $\eta_p^2 = 0.10$ (see Fig. 4).

Finally, there were significant main effects of fusion, $b = -0.27$, CI 95% [-0.43, -0.12], $\beta = -0.43$, $se = 0.08$, $t(103) = -3.44$, $p < .001$, $\eta_p^2 = 0.10$, identification, $b = 0.18$, CI 95% [0.04, 0.32], $\beta = 0.35$, $se = 0.07$, $t(103) = 2.52$, $p = .013$, $\eta_p^2 = 0.06$, and condition, $b = 0.27$, CI 95% [0.01, 0.54], $\beta = 0.37$, $se = 0.13$, $t(103) = 2.08$, $p = .040$, $\eta_p^2 = 0.04$. The interaction between identification and condition was not significant, $b = -0.15$, CI 95% [-0.35, 0.04], $\beta = -0.29$, $se = 0.10$, $t(103) = -1.53$, $p = .128$, $\eta_p^2 = 0.02$.

The results of Experiment 4 confirmed Experiments 1–3 insofar as: (a) in the negative contact condition, stronger fusion during wave 1 predicted more hostility toward immigrants one month later and (b) in the no-contact condition, stronger fusion during wave 1 predicted warmer sentiments toward immigrants one month later. Thus, identity fusion activates negative intergroup sentiments cross-sectionally (Experiments 1–3) and prospectively (Experiment 4) when participants experience or learn about different variations of negative contact with outgroup members (immigrants or Roma), but not when no information about contact is provided or retrieved from memory. In fact, in the absence of negative contact, strong fusion appears to be associated with warmer sentiments toward outgroup members.

Regarding identification, neither in this nor in previous studies did we find a pattern consistent with our hypotheses. In studies 2 and 4 there was no interaction between identification and contact, and in study 3 the interaction was in the opposite direction. It appears, therefore, that identification does not interact with negative contact in the way that fusion does.

7. Mini meta-analysis of sentiments in the control (no-contact) conditions of experiments 1–4

Although there was a tendency for higher fusion to be associated with warmer sentiments toward outgroup members in the no-contact condition of all four experiments, this tendency was not significant in Experiment 1. To clarify whether in the absence of contact, identity fusion is associated with less hostility toward outgroup members, we conducted a meta-analysis considering the correlations between fusion and intergroup attitudes in the no-contact conditions.

As displayed in Table 3, the results of a mini meta-analysis of the no-contact conditions support the robustness of the negative association between fusion and hostility (Note that lower scores reflected more warmth). That is, in the no-contact conditions, increments in fusion were associated with warmer sentiments toward outgroup members,

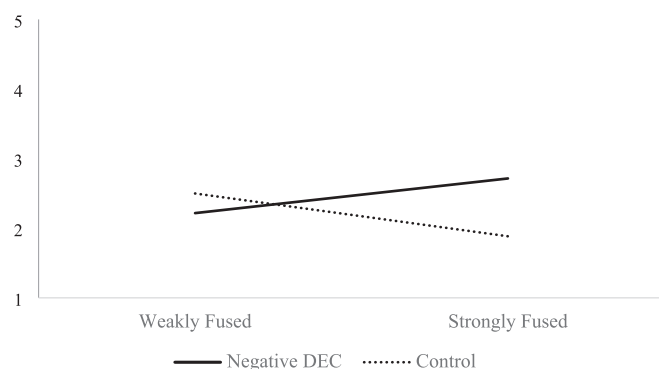


Fig. 4. Sentiments toward immigrants as a function of identity fusion and experimental condition.

Fisher $z = -0.20$, $r = -0.20$, $SE = 0.04$, $p < .001$, 95% CI [-0.28, -0.12].

8. General discussion

We proposed that identity fusion would be associated with positive perceptions of members of familiar outgroups under baseline control conditions but negative perceptions when threatened. Consistent with this expectation, in the control conditions of Experiments 2–4, increments in fusion were associated with warmer sentiments toward outgroup members (immigrants or Roma). The opposite pattern emerged when we made salient any of three distinct forms of negative contact: direct, extended and depersonalized extended. Specifically, when negative contact was salient, increments in fusion were associated with more hostility toward outgroup members. Experiment 4 replicated the effects of identity fusion and contact using a prospective design. Our findings therefore provided converging evidence that high levels of identity fusion fostered warmth toward outgroup members in the absence of negative contact but hostility in the presence of negative contact.

The results of our experiments confirm and extend earlier evidence that strongly fused persons are hostile toward outgroup members who seem to threaten the ingroup. In some of this earlier research the threat was palpable: the stabbing intifada against Israel represents a case in point (e.g., Fredman et al., 2017; see also Newson et al., 2018). Our findings go beyond this earlier work by showing that in the absence of threat, increments in fusion were associated with exceptionally warm feelings toward outgroup members. This finding dovetails with other recent evidence of the light side of identity fusion. For example, some researchers have reported that fusion predicts willingness to make sacrifices for the group, including money (Buhrmester et al., 2018; Misch, Ferguson, & Durnham, 2018; Purzycki & Lang, 2019; Segal, Jong, & Halberstadt, 2018; Swann Jr, Gómez, Huici, et al., 2010) and time (Hart & Lancaster, 2019). Other researchers have shown that fusion with university predicts retention in that university (Talaifar et al., 2021). Still others have contended that fusion serves as a “secure base” akin to warm and responsive caregivers (Klein & Bastian, 2022). Together with our results, these findings call for a more nuanced view of fusion that emphasizes its linkage to behaviors that are socially valued as well as problematic (of course, even fighting for one’s group is valued from the perspective of members of the group that is being defended).

With this more nuanced view of fusion in hand, one challenge for future researchers will be to specify why fusion sometimes leads to warm feelings toward outgroup members. As noted earlier, factors include the feelings of safety, security and invulnerability derived from membership in a group that will fend off adversaries as well as the development of relational ties with members of familiar outgroups. As we expected, ingroup identification was not associated with warmer sentiments toward outgroup members in the absence of negative contact. We believe this reflects the fact that unlike fusion, identification does not emphasize relational ties to the ingroup nor reciprocal strength and is consequently less likely to foster perceptions of the ingroup as a secure base.

One alternative explanation of the warm sentiments of strongly fused participants toward members of a familiar ingroup is that they believed that benign treatment of familiar outgroup members was normative and acted accordingly (for a discussion about norms and DEC, see Gómez et al., 2018). It could also be argued that recategorization and differentiation processes are the explanatory mechanisms (see Dovidio, Love, Schellhaas, & Hewstone, 2017), such that people maintain a one-group representation of the ingroup (Spaniards) and the familiar outgroup (Roma or immigrants) in neutral conditions but adopt a vision of two different groups in the negative contact conditions (which could increase category salience). Nevertheless, if ingroup norms or recategorization/differentiation were the mechanisms underlying our effects, similar patterns of results would be expected for fusion and identification, given that identification with the ingroup also increases adherence

Table 3
Experiments 1–4. Data for the meta-analysis on the effect of fusion on sentiments.

Study	<i>r</i>	<i>n</i>	<i>SE</i>	<i>r</i> lower	<i>r</i> upper	Fisher <i>z</i>	<i>d</i>	Weight(%) fixed	Weight(%) random
1	−0.09	259	0.06	−0.21	0.03	−0.09	−0.18	47.50	26.95
2	−0.25	161	0.08	−0.41	−0.09	−0.26	−0.52	29.32	26.17
3	−0.38	73	0.12	−0.61	−0.15	−0.40	−0.82	12.99	23.92
4	−0.31	58	0.13	−0.57	−0.05	−0.32	−0.65	10.20	22.96

to its norms (Livingstone, Haslam, Postmes, & Jetten, 2011; Terry & Hogg, 1996) and identification with the superordinate group reduces intergroup bias (Stone & Crisp, 2007). However, the effects of fusion and identification on sentiments were quite different. Apparently, the distinctive elements of fusion (relational ties, reciprocal strength) as compared to identification are mainly responsible for warm sentiments toward outgroup members under the no contact conditions.

Our findings also inform the emerging literature on intergroup contact, especially negative contact based on extended or depersonalized encounters (Gómez et al., 2018; Mazziotta et al., 2015). We discovered that reminding people of negative intergroup interactions degraded their feelings toward outgroup members whether the ingroup members who had the interactions were friends or relatives (extended contact) or ingroup members in general (depersonalized extended). Identity fusion, but not ingroup identification, interacted with contact, however. Whereas identity fusion was associated with warmer sentiments toward outgroup members in the absence of negative contact, it was associated with more hostile sentiments toward outgroup members in the presence of negative contact.

One challenge for future researchers will be to build on our findings and related work on the influence of fairness and egalitarian norms (Çoksan & Cingöz-Ulu, 2022; Jetten, Spears, & Manstead, 1997) to clarify the links between contact and ingroup bias. On a practical level, our findings suggest that practitioners who hope to improve intergroup relations should be particularly careful to avoid negative contact among those who are fused to an ingroup.

Our findings raise a host of challenges that future researchers might pursue. Since our interest was in exploring whether fusion was associated with hostile intergroup sentiments under *threat* but with positive intergroup sentiments under *ordinary* circumstances, positive contact manipulation was irrelevant to our hypotheses. Nevertheless, it is possible that positive contact with the outgroup further enhances the positive association between fusion and intergroup sentiments that we found in the control condition. Future research might accordingly determine whether strongly fused persons are as uniquely sensitive to positive contact as our participants were to manipulations of negative contact.

Other dependent variables could also be considered to test whether the pattern of results found with sentiments is also replicated when, for example, intergroup behavior is analyzed. In addition, researchers might explore moderators and mediators of our effects. We are especially interested in the boundary conditions of the tendency for fusion to predict warmer sentiments toward outgroup members in the no-contact control conditions. For example, fusion to groups that are premised on the perception of threat (e.g., terrorist groups, hate groups, and other oppositional groups) would *not* predict positive sentiments toward outgroups. Such a finding would be consistent with our evidence that perceiving outgroups as threatening leads strongly fused people to denigrate members of such outgroups.

Another avenue to be explored would consist in verifying the association between intergroup attitudes and other forms of alignment with a group such as glorification (Roccas, Klar, & Liviatan, 2006) or collective narcissism (Golec de Zavala, Cichočka, Eidelson, & Jayawickreme, 2009) under threatening and non-threatening circumstances. Glorification and narcissism are based on the belief that either the ingroup is superior to others or that it should be recognized as such,

respectively. These qualities are absent from identity fusion, which uniquely emphasizes other distinctive qualities such as relational ties, an agentic personal self and feelings of safety and invulnerability. It is these unique properties of fusion, absent in other forms of group alignment, that contributes to a “secure base schema” (e.g., Klein & Bastian, 2022) which in turn facilitates the development of positive attitudes toward familiar outgroups in non-threatening situations.

9. Conclusions

As in past research on the dark side of fusion, in four studies, identity fusion predicted higher prejudice toward outgroup members (immigrants or Roma) when negative interactions with outgroup members were made salient. Nevertheless, in the absence of negative contact with outgroup members, the opposite pattern emerged: identity fusion promoted relatively *positive* sentiments toward outgroup members. These results point to a potential new pathway for improving intergroup relations that parallels the venerable idea that loving the self is a precondition for loving others (Campbell, Foster, & Finkel, 2002). Apparently, increments in fusion to the ingroup will promote more positive evaluations of members of familiar outgroups as long as there is no reason to perceive outgroup members as threats. Simply put, embracing members of one's ingroup may provide a gateway to embracing members of outgroups.

Data availability

Data will be made available on request.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jesp.2023.104462>.

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