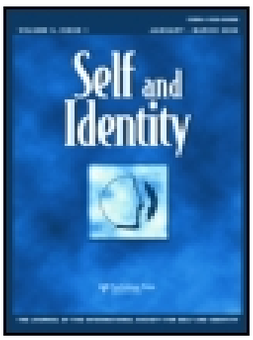

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Do historic threats to the group diminish identity fusion and its correlates?

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ABSTRACT

We examined the reactions of Spanish participants to three negative historic events: a corruption scandal involving the Royal Family and two separatist efforts by a prosperous region of Spain. Although average fusion scores declined following these events, these declines were limited to sentiments toward the group category – collective ties-; they did not tarnish sentiments toward individual group members – relational ties. Moreover, strongly fused persons continued committed to remain in the group and act agentically by fighting and dying for it. Finally, rank orderings of fusion scores remained stable. These findings demonstrate that negative events weaken some aspects of alignment with the group, including collective ties and fusion, but not other aspects, such as relational ties and endorsement of pro-group behaviors.

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Identity fusion; extreme behavior; absolute stability; relative stability

Do highly salient challenges or threats to the group undermine strong allegiances to groups? Further, if negative events do degrade people's allegiances toward the group, do they also reduce intentions to remain in the group and protect it from outsiders? In this report we addressed these issues with respect to "identity fusion", a newly identified form of allegiance to groups. Identity fusion occurs when people develop a visceral sense of union of their personal and social identities. Individuals who feel fused with groups are particularly likely to endorse and enact life-threatening, pro-group behavior (for reviews, see Gómez & Vázquez, 2015; Swann & Buhrmester, 2015). Although theory suggests that fusion scores should be temporally stable (Swann, Jetten, Gómez, Whitehouse, & Bastian, 2012), researchers have yet to conduct thorough, "acid tests" of stability. We conducted such acid tests by examining the impact of several major historic events on the stability of identity fusion and its correlates (relational ties, collective ties, personal agency, desire to leave the group and enact extreme sacrifices for the group). We begin with an overview of past work on identity fusion.

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The nature of identity fusion

Identity fusion is as a visceral feeling of oneness with a group. When fusion occurs, the borders between the personal identity (i.e., aspects of self that make people unique) and social identity (i.e., aspects of self that align them with groups) become highly permeable. These permeable boundaries encourage synergistic activity between the personal and social selves of strongly fused persons; activity that motivates extraordinary sacrifices on behalf of the group. Indeed, measures of fusion have proved to be exceptionally strong predictors of extreme pro-group behavior. For example, fusion predicts endorsement of fighting and dying for ingroup members (Gómez, Brooks, et al., 2011; Swann, Gómez, Seyle, Morales, & Huici, 2009), self-sacrifice to save group members in the trolley dilemma (Gómez, Brooks, et al., 2011; Swann, Gómez, et al., 2014), donating personal funds to members of their group who are in need (Buhrmester, Fraser, Lanman, Whitehouse, & Swann, 2015; Swann, Gómez, Huici, Morales, & Hixon, 2010), refusal to leave the group even after being excluded by its members (Gómez, Morales, Hart, Vázquez, & Swann, 2011), volunteering to fight on the front lines during the Libyan revolution (Whitehouse, McQuinn, Buhrmester, & Swann, 2014), and, in a sample of transsexuals, undergoing major surgery to join their desired sex (Swann et al., 2015).

The identity fusion construct builds on several intellectual predecessors (for a review, see Swann et al., 2012). The most important is group identification, a construct that social identity theorists developed to illuminate intergroup relations (Hornsey, 2008; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Like fusion, identification refers to an alignment of people's personal identities and social identities. However, there are important differences between group identification and identity fusion (see Gómez, Brooks, et al., 2011; Swann et al., 2012). In particular, identity fusion is unique in attributing pro-group behavior to (a) the personal self and (b) strong relational ties (i.e., personal relationships) among group members.

From the very beginning, social identity theory (e.g., Tajfel & Turner, 1979) and self-categorization theory (Turner et al., 1987) downplayed the importance of personal agency as a determinant of pro-group activities. Instead, both theories argued that a "depersonalized" social self motivates pro-group behavior (Turner et al., 1987). In contrast, fusion theory assumes that when fused individuals consider enacting pro-group behavior, they do not temporarily abdicate the personal self. Instead, they channel their personal agency into the group's agendas. Indeed, perceptions of agency have been shown to mediate the impact of fusion on endorsement of pro-group behavior (Gómez, Brooks, et al., 2011; Swann et al., 2010). The salient personal self and the readiness for action that characterize strongly fused persons produce feelings of certainty and agency (Swann et al., 2012). Thus, unlike identification, fusion does not grow out of anxiety or uncertainty as some have proposed (e.g., Hogg, 2009).

Fusion and social identity theories also differ in the importance accorded to relational ties (involving attachment to fellow group members) and collective ties (involving allegiance to the group identity). Whereas relational ties are based on sentiments toward individual group members, collective ties are based on sentiments toward the group category as a whole, independent of one's interpersonal relationships, (Brewer & Gardner, 1996; see also Prentice, Miller, & Lightdale, 1994). Social identity theory emphasizes the importance of collective ties to the group category and the reputation of the collective relative to relevant outgroups (Tajfel & Turner, 1979; but see Hogg, 1993). Within this framework, relational ties to other group members are not an important source of pro-group behavior. In contrast, within the identity fusion perspective, both collective and relational ties can be salient and

motivating at the same time (Swann et al., 2012). Strongly fused persons align themselves not only with the group category, but also with the individual members of the group, who are viewed as family. For example, in a recent study of fighters in the 2011 Libyan revolution (Whitehouse et al., 2014), frontline combatants reported being as strongly fused with members of their battalion as they were to their own families (see also Swann, Buhrmester, et al., 2014). In addition, relational ties have been shown to mediate the impact of fusion on pro-group behavior (Buhrmester et al., 2015; Swann, Buhrmester, et al., 2014).

Measuring and conceptualizing stability

In conceptualizing the stability of any psychological construct, it is important to acknowledge that stability can be measured in several different ways. One key distinction involves the nature of the outcome measure. For example, given the strong links between fusion, personal agency and endorsement of fighting and sacrificing for the group demonstrated in previous research, one would expect that diminutions in fusion would be accompanied by diminutions in its correlates. Nevertheless, the relation between cognitive, affective and behavioral components of attitudinal concepts is far from perfect (e.g., Björgo & Horgan, 2008). In the wake of a historic negative event, strongly fused persons may privately question their feeling of oneness with the group but refrain from public behaviors such as immediately leaving the group or withdrawing support. In addition, although historic events may damage the public perception of the group and thus weaken collective ties, such events will not necessarily degrade the personal relationships of group members.

Stability may also be *conceptualized* in at least two distinct ways. A*bsolute change* refers to shifts in the average score of a group of individuals over time. *Relative change* refers to shifts in the rank-orderings of individuals within the group over time (cf. Mathieu & Gosling, 2012; Roberts & DelVecchio, 2000; Santor, Bagby, & Joffe, 1997). When people experience a historic event, high levels of absolute change will not necessarily be accompanied by high levels of relative change. For example, if participants in a group uniformly respond to an event in the same way (e.g., by either increasing or decreasing their fusion scores), absolute change will be high while relative change is low. Some evidence supports this idea. Wagner, Becker, Christ, Pettigrew, and Schmidt (2010) reported that although average nationalism scores decreased over four years, rank order stability was high, $r = .71$. Ethier and Deaux (1990, 1994) found that although average group identification fluctuated over six months, relative stability emerged in the form of strong test–retest correlations, $r's = .72$ to .82.

Identities may waver in response to internal or external threats. Over the last several decades, social psychologists have proposed different strategies to manage a threatened social identity. These strategies range from leaving the group (i.e., "social mobility"; Tajfel & Turner, 1979) to reinforcing their group identification (Branscombe, Schmitt, & Harvey, 1999). When intergroup boundaries are permeable, social mobility should be the prominent choice (Tajfel & Turner, 1979). However, abandoning the group is not always possible either because intergroup borders are closed or because practical considerations are prohibitive. This is the case for people who are strongly fused with a group. In past work, for example, they responded to being excluded by ingroup members (other Spaniards) by actually increasing their endorsement of self-sacrificial behavior for the group (Gómez, Morales, et al., 2011).

Most previous research on threats to social identity focused on intergroup scenarios where the ingroup either is presented as a victim of hostility or injustice (e.g., Spears, Doosje,

& Ellemers, 1997; van Zomeren, Postmes, & Spears, 2008) or as a perpetrator of immoral actions (e.g., Gausel, Leach, Vignoles, & Brown, 2012; Piff, Martinez, & Keltner, 2012). Perceiving that one's group is devaluated or unfairly treated by an outgroup usually increases identification and willingness to engage in collective action (van Zomeren et al., 2008). However, feeling ashamed of the ingroup's attacks on others may sometimes lead to ingroup directed hostility (e.g., Piff et al., 2012). Furthermore, feelings of shame are moderated by one's attachment to the group such that stronger national identification predicts less shame for less negative events and more shame for very negative events (Johns, Schmader, & Lickel, 2005). Fewer studies have explored internal threats. When the problem originates in the group itself (e.g., the belief that the group identity has been subverted) group identification might decrease (e.g., Sani, 2005).

Although the intergroup scenarios emphasized in previous research are very different from the intra-group scenarios of interest here, they do suggest that people who are strongly aligned with the group care more about threats to the group than people who are weakly aligned with the group. This may be particularly true among strongly fused people. Due to the porosity of the borders between the personal and social identity of strongly fused individuals, historic threats to the group simultaneously challenge their personal and social identities and should therefore have a particularly strong, impact on the average fusion scores of strongly fused individuals (Swann et al., 2012). For these reasons we expect that the tendency for historic negative events to undermine feelings of fusion will be especially strong among strongly fused individuals.

We also expected that the absolute change in fusion would be mediated by the effect of historic events on collective ties but not on relational ties. Because the historic events examined here stemmed from ingroup political elites (e.g., the monarchy, the government), they may have little impact on the private relationships of group members and strength of their relational ties to one another. More concretely, our participants may compartmentalize their annoyance with political elites so that it does not contaminate their sentiments toward rank-and-file citizens. Thus, whereas the perception of other group members might remain stable, historic events caused by politicians and institutions may diminish fusion to the group category and weaken collective ties to the group, but have no impact on relational ties to fellow members of the group. At the same time, despite changes in average fusion scores, they may remain relatively stable. In fact, preliminary evidence (Swann et al., 2012) indicates that the relative stability of identity fusion is high.

Overview of our research

We tested our hypotheses by examining the impact of historic threats to the group on fusion scores and related constructs in three prospective studies. In all studies we assessed identity fusion in a pretest and again in a posttest after the historic event. All posttests included assessments of willingness to fight and die for the group. In Studies 1–2 we also measured group identification, personal agency and desire to leave the group. In Studies 2–3 we measured relational and collective ties at the beginning of the posttest to determine if such ties might mediate changes in fusion.

We used two different strategies to vary the salience of the historic event in the posttest. In Study 1 and 2 all participants completed the posttest after the historic event but we increased the salience of the event for some participants by reminding them of the event

just prior to the posttest. In Study 3 we relied on the timing of the posttest. That is, several months after all participants completed the pretest measure of fusion, some completed the posttest immediately prior to the historic event and others completed it immediately after the historic event.

We reasoned that historical events would influence average fusion scores and that this might be particularly true of participants who were strongly fused to the group. Hence, significant historical events should produce greater changes in average fusion scores of strongly fused persons relative to weakly fused persons. At the same time, we did not expect these events to influence the rank orderings of fusion scores within the group. Furthermore, we expected that collective but not relational ties to the group would mediate changes in absolute fusion levels in response to the historic events[1].

Study 1: Stability of identity fusion after revelations of institutional corruption

In Study 1 we examined whether identity fusion with the country and its correlates changed in response to the involvement of the king's daughter and her husband in a corruption case. This was one of the most scandalous cases of corruption in Spain, due not to the amount defrauded, but to the involvement of the Royal Family.

The study was conducted in two waves. The pretest was conducted one month before the scandal became public. The posttest took place the week after the scandal. Prior to the posttest, we manipulated the salience of the scandal by having participants read and write about it (Scandal-salient condition) or not (Control). We expected that strongly fused participants would be more reactive to the scandal than weakly fused individuals. In particular, increasing the salience of the scandal should cause strongly (but not weakly) fused participants to display slightly diminished feelings of fusion with the country. We also measured participants' personal agency, desire to leave the group and willingness to fight and die for their country.

Method

Participants

One hundred and twenty-six (73.8% women, mean age = 33.19, SD = 10.18) undergraduate students at UNED voluntarily participated in this study.

Procedure

The study was billed as an investigation of the relationship between the individual and the country. All questionnaires were completed online privately. During the pretest, participants completed the 7-item (e.g., "I am one with Spain", "I make Spain strong") *verbal fusion* scale (Gómez, Brooks, et al., 2011) and the 6-item (e.g., "I am very interested in what citizens of others countries think about my country") Mael and Ashforth's (1992) *identification* scale, considering Spain as the focal group, αs = .91 and .89, respectively. All the scales included in Studies 1–3 ranged from 0 (completely disagree) to 6 (completely agree).

One month later, we contacted participants again and asked them to complete the posttest. All but 12 of the original participants completed the posttest. Participants in the *scandal-salient condition* read a newspaper article about the scandal and wrote their thoughts

about the consequences of this event. Participants in the *control condition* proceeded directly to the questionnaire, which included the same measures of fusion and identification with Spain, *αs* > .90. Additionally, participants completed measures of personal agency, desire to leave the group, and willingness to fight and die for the country.

For the measure of *personal agency*, we used a 5-item scale (Gómez, Brooks, et al., 2011) which included items as "I am able to control what my group does", $\alpha = .86$. To assess the *desire to leave the group* we used a 3-item (e.g., "If I could change my nationality, I would do it") scale taken from Gómez, Morales, et al. (2011), $\alpha = .90$. *Willingness to fight and die for the group* was assessed with a 7-item scale (e.g., "I would fight someone physically threatening another Spaniard") taken from Swann et al. (2009), $\alpha = .86$.

Results

Prior to conducting regression analyses we tested the assumption of homogeneity of variances between strongly, moderately and weakly fused. In all studies, the Levene's test of equality of variances was significant, *ps* < .001, indicating that variances were unequal. To correct for this violation, we used heteroskedasticity-consistent standard error estimators (Hayes & Cai, 2007) in all regression analyses.

Regression analyses (evidence of absolute change)

We conducted four multiple regression analyses using the following predictors: fusion at pretest (centered), scandal-salience (effect coded, −1 control, 1 scandal), and the 2-way interaction. The outcome measures were posttest fusion, personal agency, desire to leave the group and willingness to fight and die.

Identity fusion. Evidence of contextual sensitivity came from a significant interaction between pretest fusion and scandal-salience (see Table 1). As shown in Figure 1, the scandal-salience manipulation was stronger for strongly fused participants than for moderately and weakly fused participants. Evidence of stability of group averages came from a main effect of pretest fusion.

Personal agency, desire to leave the group and willingness to fight and die for the group. The regression analyses on these outcome variables yielded evidence of stability in that only a main effect of pretest fusion emerged (see Table 2). The stronger fusion in pretest, the higher personal agency and willingness to fight and die for the group and the lesser desire to leave the group during the posttest. The scandal did not diminish any of these fusion correlates.

Table 1. Study 1. Regression analysis on posttest fusion.

Predictors	*B*	SE	*t*	*p*	95% LLCI	95% ULCI
Fusion	0.80	.05	15.83	<.001	0.70	0.90
Condition	−0.07	.06	−119	.24	−0.18	0.04
Condition* Fusion	−0.14	.05	−2.85	.005	−0.24	−0.04
Condition* [Fusion = −1.21]	0.11	.06	1.67	.10	−0.02	0.23
Condition* [Fusion = 0.00]	−0.07	.06	−1.19	.24	−0.18	0.04
Condition* [Fusion = 1.21]	−0.24	.10	−2.45	.02	−0.44	−0.05

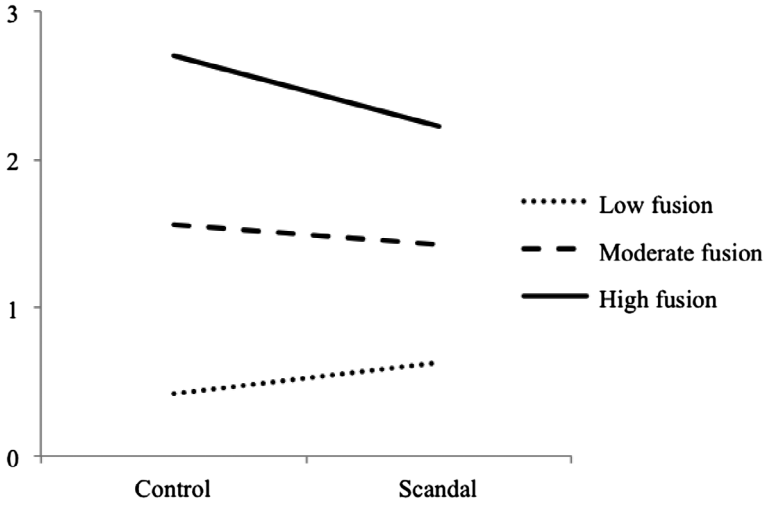

Figure 1. Study 1. Posttest fusion as a function of pretest fusion and scandal salience.

Table 2. Study 1. Regression analyses on posttest agency, desire to leave the group and fight/die.

	Personal agency		Desire to leave the group		Fight and die	
Predictors	*B*(SE)	95% CI	*B*(SE)	95% CI	*B*(SE)	95% CI
Fusion	0.31 (.08)***	0.16–0.46	−0.49 (.14)***	−0.76–0.21	0.43 (.05)***	0.33–0.53
Condition	0.31 (.08)	−0.15–0.17	−0.02 (.16)	−0.33–0.30	−0.06 (.06)	−0.17–0.54
Condition* Fusion	−0.08 (.08)	−0.23–0.07	0.02 (.14)	−0.25–0.30	−0.03 (05)	−0.14–0.07

***$p < .001$.

Table 3. Study 1. Descriptive statistics and correlations.

	M	SD	1	2	3	4	5	6	7
1. Pretest fusion	1.69	1.21	–						
2. Posttest fusion	1.51	1.19	.87**	–					
3. Personal agency	0.69	0.93	.44**	.46**	–				
4. Desire to leave the group	2.24	1.73	−.34**	−.35**	−.16	–			
5. Fight/die	0.70	0.78	.70**	.70**	.45**	−.26**	–		
6. Pretest identification	2.58	1.41	.79**	.76**	.36**	−.29**	.59**	–	
7. Posttest identification	2.65	1.44	.75**	.79**	.50**	−.32**	.65**	.81**	–

**$p < .01$.

Correlational analyses (evidence of relative change)

Table 3 contains the descriptive statistics and correlations among variables. Pretest and posttest fusion were highly and positively correlated, indicating that participants tended to maintain their relative positions after the event. The correlations of pretest and posttest fusion with the remainder variables were also significant.

Identification

We repeated the same analyses reported before but replacing fusion with identification (see Table 4). The regression analyses on perceived agency, desire to leave the group and willingness to fight and die for the group only yielded main effects of identification. The

Table 4. Study 1. Regression analyses on posttest identification, agency, desire to leave the group and fight/die.

	Posttest identification		Personal agency		Desire to leave the group		Fight and die	
Predictors	*B*(SE)	95% CI	*B*(SE)	95% CI	*B*(SE)	95% CI	*B*(SE)	95% CI
Identification	0.81 (.05)***	0.71–0.90	0.23 (.06)***	0.12–0.35	−0.36 (.13)**	−0.61–0.11	0.31 (.05)***	0.22–0.41
Condition	−0.06 (.08)	−0.22–0.10	0.02 (.08)	−0.15–0.18	−0.03 (.16)	−0.35–0.30	−0.05 (.06)	−0.17–0.07
Condition* Identification	−0.10 (.05)*	−0.19–0.00	−0.06 (.06)	−0.18–0.05	0.04 (.13)	−0.21–0.29	−0.05 (05)	−0.14–0.05

***$p < .001$; **$p < .01$; *$p = .04$.

interaction between pretest identification and salience had a significant effect, but none of simple slopes was significant, *ps* > .10. The failure of our manipulation to influence identification was surprising, as we had expected that identification scores might resemble fusion scores.

Discussion

The results of Study 1 indicate that strongly fused persons displayed evidence of both contextual sensitivity and stability. Evidence for contextual sensitivity emerged among strongly fused individuals who reported less fusion with their country after pondering the scandal. In contrast, the scandal had minimal impact on participants who were moderately and weakly fused. Furthermore, the decrease in fusion showed by strongly fused participants in the scandal salient condition was not accompanied by a reduction in their personal agency and willingness to fight and die for the country or an increase in their desire to leave the group. Therefore, although negative events may degrade strongly fused persons' perceptions of the group, such events will not reduce their stable commitment to protecting and remaining in the group.

Importantly, overall participants displayed high levels of relative stability in their fusion scores. This finding suggests that contextual sensitivity occurred *within the context of* stability, not at the *expense* of stability.

One reason why negative events diminished fusion is that they may degrade collective ties to the group. Such events, however, may have relatively little impact on relational ties the group. To test this possibility, we included measures of collective and relational ties to the group in Studies 2 and 3.

Study 2: Stability of identity fusion following a threat to the group's integrity

Study 2 was conducted to explore how a negative event influences collective and relational ties as well as feelings of identity fusion. The historic event explored in this study was the announcement in 2012 by the newly formed government of Catalonia (a region of Northeast Spain) to hold a referendum to ask Catalan citizens whether they wanted to become a sovereign state or remain in Spain. This referendum questioned one of the principles enshrined in the Spanish Constitution, which is the indissoluble unity of the Nation. Allowing this referendum would therefore grant credence to the proposal to splinter the nation.

As in Study 1, we expected that increasing the salience of the referendum would reduce feelings of fusion with the country among strongly fused participants, but not among moderately and weakly fused. Furthermore, we expected that raising the salience of the referendum would reduce fusion by diminishing collective ties to the country. In contrast, based on conceptual analysis and the results of Study 1, we did not expect that increasing the salience of the referendum would influence relational ties, personal agency, desire to leave the group or willingness to fight and die for the group.

Method

Participants

Ninety-five (57.9% women, mean age = 34.94, SD = 10.09) Spanish undergraduates at the UNED voluntarily participated in this study.

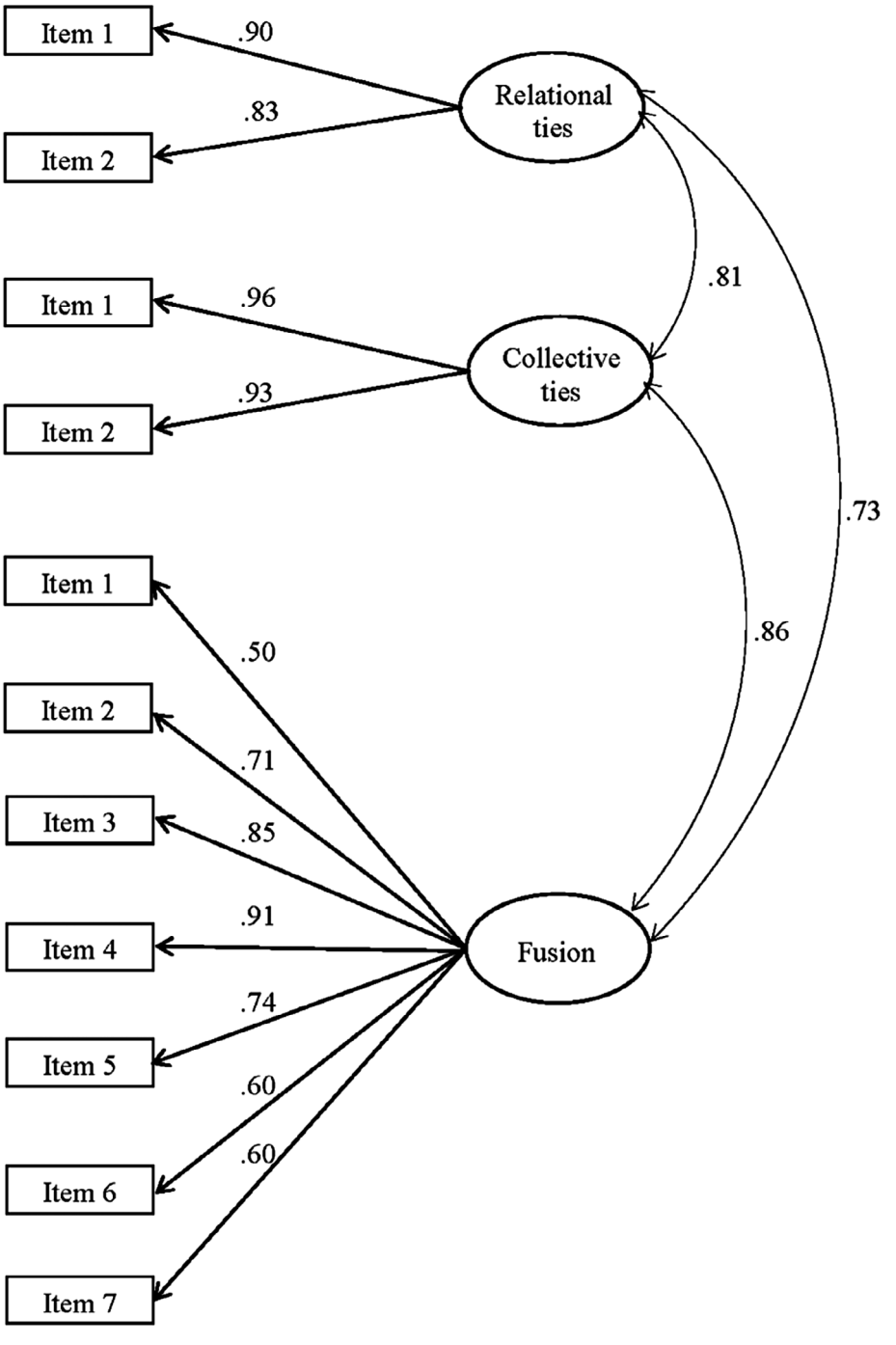

Figure 2. Preliminary study. Confirmatory factor analysis of relational ties, collective ties and fusion.

Procedure

During the pretest, participants completed the verbal fusion and identification scales ($\alpha s > .82$), considering Spain as the focal group. Two months later, all but eight of the original

participants completed the posttest of the study. Those in the *secession-salience condition* read a newspaper article about the announcement of a referendum in Catalonia. Participants in the *control condition* read a newspaper article on pollution. To make sure that the event was truly salient, we asked participants to write about the consequences of those events. Then they completed the scales of collective and relational ties, *rs* > .81, and the same measures of identity fusion, identification, personal agency, desire to leave the group and willingness to fight and die for the group as in Study 1, *αs* > .71. Upon completion of the study, participants were debriefed and thanked.

Preliminary investigation: Discriminant validity of relational ties and collective indexes. Prior to testing our primary hypotheses, we conducted a preliminary study to ascertain the discriminant validity of the measures of collective, relational ties and identity fusion. All measures were 7-point scales ranging from 0 (disagree strongly) to 6 (agree strongly). To assess collective ties, participants indicated agreement with the two items: "I feel strong ties with my country" and "I feel close to my country". To assess relational ties, participants indicated agreement with the two items: "I feel strong ties with the members of my country" and "I feel close to the members of my country". Identity fusion was measured using the Gomez, Brooks, et al.'s (2011) index.

Two hundred and forty-nine Spaniards (62.7% women; mean age = 36.39, SD = 11.09) completed the relational ties, *r*(247) = .75, the collective ties, *r*(247) = .89, and the verbal

Table 5. Study 2. Regression analysis on collective ties.

Predictors	*B*	SE	*t*	*p*	95% LLCI	95% ULCI
Fusion	1.03	.12	8.45	<.001	0.79	1.27
Condition	−0.13	.15	−0.85	.40	−0.42	0.17
Condition* Fusion	−0.30	.12	−2.46	.02	−0.54	−0.06
Condition* [Fusion = −1.16]	0.22	.18	1.27	.21	−0.13	0.57
Condition* [Fusion = 0.00]	−0.13	.15	−0.85	.40	−0.42	0.17
Condition* [Fusion = 1.16]	−0.47	.23	−2.06	.04	−0.93	−0.02

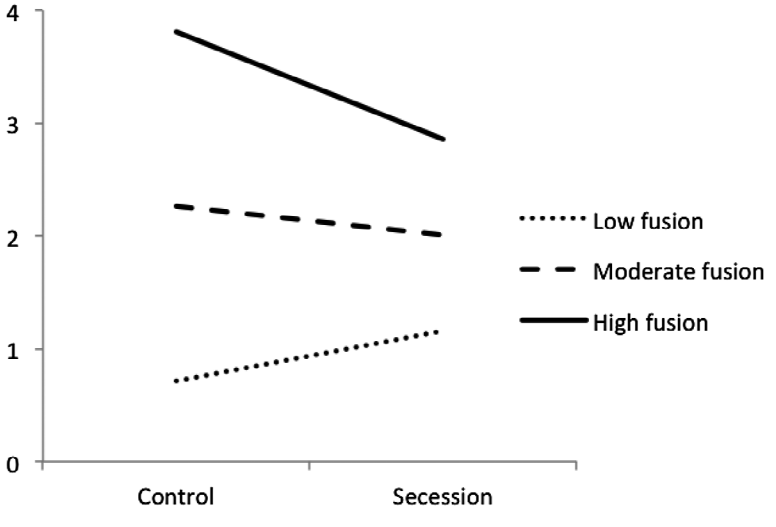

Figure 3. Study 2. Collective ties as a function of pretest fusion and secession salience.

Table 6. Study 2. Regression analysis on posttest fusion.

Predictors	*B*	SE	*t*	*p*	95% LLCI	95% ULCI
Fusion	0.73	.08	8.99	<.001	0.57	0.89
Condition	−0.09	.08	−1.07	.29	−0.24	0.89
Condition* Fusion	−0.23	.08	−2.79	.01	−0.39	−0.07
Condition*[Fusion = −1.16]	0.18	.12	1.53	.13	−0.05	0.41
Condition*[Fusion = 0.00]	−0.09	.08	−1.07	.29	−0.24	0.07
Condition*[Fusion = 1.16]	−0.35	.13	−2.68	.01	−0.61	−0.09

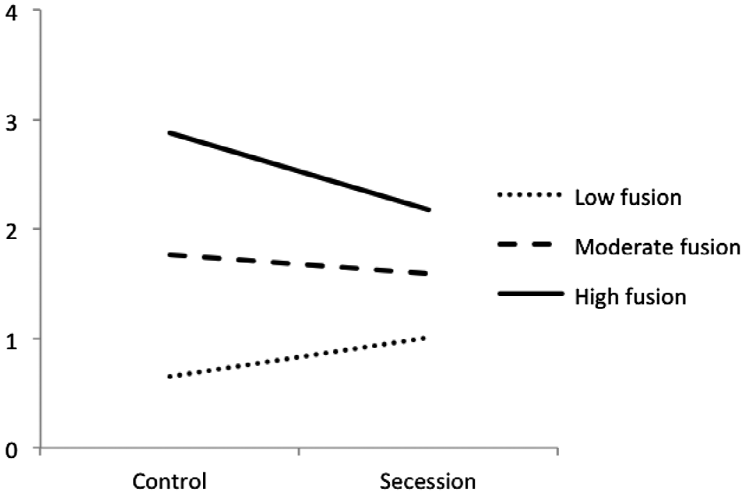

Figure 4. Study 2. Posttest fusion as a function of pretest fusion and secession salience.

fusion scale, $\alpha = .89$. Confirmatory factor analyses (CFAs) of the relational ties, collective ties and fusion items provided evidence that each of these measures tapped distinct constructs (see Figure 2). The three-factor solution fits the data better than two factor solutions (fusion and collective ties as one factor and relational ties as another factor: $\Delta\chi^2 = 67.12$, $p < .001$; relational and collective ties as one factor and fusion as another factor: $\Delta\chi^2 = 165.90$, $p < .001$) or one factor solutions ($\Delta\chi^2 = 318.67$, $p < .001$), and produces good fit (comparative fit index .981, normed fit index .963, goodness-of-fit index .949, and [RMSEA] .064).

Results

Regression analyses (evidence of absolute change)

We conducted six multiple regression analyses using the following predictors: fusion at pretest (centered), secession-salience (effect coded, −1 control, 1 secession), and the 2-way interaction. The outcome measures were collective ties, relational ties, posttest fusion, personal agency, desire to leave the group and willingness to fight and die.

Collective ties. The regression analysis on collective ties provided evidence of both contextual sensitivity and stability. Evidence of contextual sensitivity came from a significant interaction between pretest fusion and secession salience (see Table 5). As shown in Figure 3, the effect of the secession-salience manipulation was significant for strongly fused

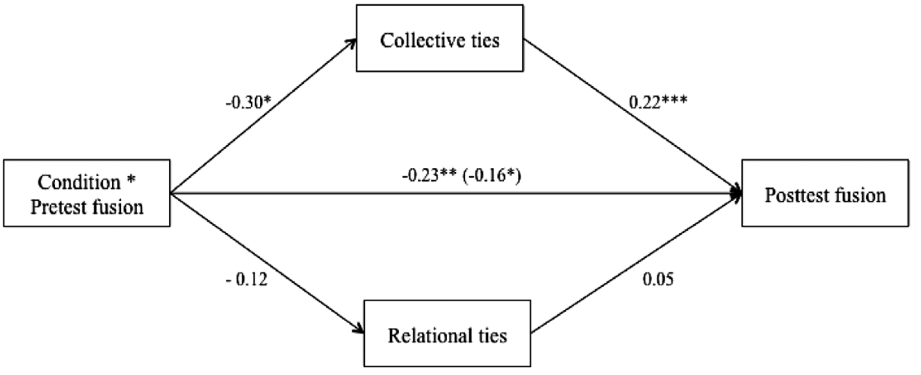

Figure 5. Study 2. Indirect effect via collective and relational ties.

Table 7. Study 2. Regression analyses on relational ties, posttest agency, desire to leave the group and fight/die.

	Relational ties		Personal agency		Desire to leave the group		Fight and die	
Predictors	*B*(SE)	95% CI	*B*(SE)	95% CI	*B*(SE)	95% CI	*B*(SE)	95% CI
Fusion	0.67 (.14)***	0.40–0.94	0.15 (.07)*	0.01–0.29	−0.73 (.16)***	−1.05–0.41	0.30 (.09)**	0.12–0.48
Condition	−0.03 (.14)	−0.32–0.25	−0.04 (.09)	−0.22–0.14	0.32 (.19)	−0.05–0.69	−0.06 (.07)	−0.20–0.08
Condition* Fusion	−0.12 (.14)	−0.39–0.15	−0.07 (.07)	−0.21–0.07	0.11 (.16)	−0.21–0.43	−0.09 (09)	−0.28–0.09

***$p < .001$; **$p < .01$; *$p < .05$.

participants, but not for moderately fused nor for weakly fused participants. Evidence of stability of group averages came from the main effect of pretest fusion. The effect of secession-salience was not significant.

Identity fusion. Evidence of contextual sensitivity came from a significant interaction between pretest fusion and secession salience (see Table 6). As shown in Figure 4, the effect of the secession-salience on posttest fusion was significant for strongly fused participants, but not for moderately fused nor for weakly fused participants. Evidence of stability of group averages came from a main effect of pretest fusion. The main effect of secession-salience was not significant.

Relational ties, personal agency, desire to leave the group and willingness to fight and die for the group. The regression analyses on these outcome variables yielded evidence of stability in that only a main effect of pretest fusion emerged (see Table 7). The stronger fusion was in the pretest, the higher relational, personal agency and willingness to fight and die for the group and the less the desire to leave the group during the posttest. No evidence of contextual sensitivity emerged, as no other effect was significant.

Mediational analysis

To test whether relational and collective ties mediated the interactive effect of pretest fusion and secession-salience on posttest fusion, we conducted a bootstrapping test (n boots = 5000) using Model 8 of the PROCCESS macro (Hayes, 2013). Collective and relational ties were

Table 8. Study 2. Descriptive statistics and correlations.

	M	SD	1	2	3	4	5	6	7	8	9
1. Pretest fusion	1.95	1.16	–								
2. Posttest fusion	1.69	1.15	.74**	–							
3. Collective ties	2.15	1.81	.67**	.74**	–						
4. Relational ties	2.90	1.48	.53**	.55**	.64**	–					
5. Personal agency	0.66	0.83	.22*	.40**	.38**	.19	–				
6. Desire to leave the group	2.41	1.90	−.46**	−.45**	−.49**	−.34**	−.05	–			
7. Fight/die	0.82	0.73	.48**	.61**	.41**	.36**	.38**	−.09	–		
8. Pretest identification	3.00	1.29	.59**	.52**	.53**	.40**	.21*	−.35**	.38**	–	
9. Posttest identification	2.52	1.33	.43**	.62**	.65**	.46**	.37**	−.40**	.33**	.66**	–

**$p < .01$; *$p < .05$.

included simultaneously as potential mediators of the interactive effect between pretest fusion and secession-salience on posttest fusion. As shown in Figure 5, the results indicated that collective ties partially mediated the impact of the interaction between the pretest fusion and secession-salience on posttest fusion, IE = −0.07, 95% CI = −0.1339 to −0.0218. However, the indirect effect via relational ties was not significant, IE = −0.01, 95% CI = −0.0567 to 0.0072.

Correlational analyses (Evidence of relative change)

Table 8 contains the descriptive statistics and correlations among variables. Pretest and posttest fusion were strongly and positively correlated, indicating that participants tended to maintain their relative positions after the event. The correlations between pretest and posttest fusion with collective and relational ties, personal agency, desire to leave the group and willingness to fight and die for the group were also significant**.**

Identification

As in study one, there were no main or interaction effects on identification (see Table 9), nor did adding identification to the analyses qualify the effects reported above. Given the null effects of our manipulation on identification in both Study 1 and 2 as well as the fact that fusion outperformed identification in over 50 published studies on identity fusion (see Fredman et al., 2015), we did not measure identification in Study 3.

Discussion

Study 2 provides further evidence of contextual sensitivity among strongly fused individuals, who adjusted their fusion scores in response to a reminder of the threat to group integrity more than weakly fused participants. Furthermore, the negative effect of secession salience on the fusion scores of strongly fused individuals was mediated by a weakening of the collective ties to the country. Support for the stability of allegiance to the group came from evidence that threat to the group did not diminish the relational ties, feelings of personal agency and intentions to fight and die for the group nor did it increase the desire to leave the group among strongly fused participants. Additionally, relative stability was high, suggesting that participants tended to maintain their relative position within the group.

Participants of the control condition read a newspaper article on pollution. We can never be sure that the negative affect induced by reading an article on pollution was equivalent

Table 9. Study 2. Regression analyses on posttest identification, agency, desire to leave the group and fight/die.

	Posttest identification		Collective ties		Relational ties	
Predictors	*B*(SE)	95% CI	*B*(SE)	95% CI	*B*(SE)	95% CI
Identification	0.67 (.08)***	0.51–0.83	0.76 (.10)***	0.56–0.96	0.48 (.14)***	0.21–0.75
Condition	0.04 (.11)	−0.18–0.25	−0.30 (.17)	−0.63–0.04	−0.14 (.16)	−0.45–0.16
Condition* Identification	−0.05 (.08)	−0.21–0.10	−0.05 (.10)	−0.26–0.15	0.07 (.14)	−0.20–0.34
	Personal agency		Desire to leave the group		Fight and die	
Predictors	*B*(SE)	95% CI	*B*(SE)	95% CI	*B*(SE)	95% CI
Identification	0.13 (.06)*	0.01–0.25	−0.55 (.16)**	−0.87–0.23	0.22 (.06)***	0.11–0.33
Condition	−0.07 (.09)	−0.24–0.11	0.44 (.19)*	0.06–0.82	−0.11 (.08)	−0.26–0.04
Condition* Identification	−0.10 (.06)	−0.22–0.03	−0.01 (.16)	−0.34–0.31	−0.05 (.06)	−0.16–0.07

***$p < .001$; **$p < .01$; *$p < .05$.

to that induced by reading about secession, but the findings of this study are consistent with the results of Study 1. This suggests that the control group was appropriate. Another possible criticism is that our findings may have reflected the fact that the manipulation involved merely reminding people of the historic event. To address this issue, in Study 3 we relied on the timing of the posttest. Participants completed the second wave of the study before or after the historic event depending on the condition they were assigned to.

Critics could also argue that weakly and moderately fused participants remain unmoved by group related events because they consider those events unimportant or not negative. To counter this alternative explanation we measured the perceived valence and relevance of the event for each participant. In addition, we recruited a bigger and a more heterogeneous sample than in Studies 1 and 2.

Study 3: Stability of identity fusion following an existential threat to the group

If the announcement of the referendum in 2012 placed the secession of Catalonia "on the table," the regional elections of 2015 put it to a vote. In fact, the pro-independence coalition did win a plurality of the votes, and this prompted the pro-independence parties to begin the process of seceding from Spain.

We expected that the victory of the pro-independence coalition would reduce feelings of fusion with the country only among strongly fused participants. Furthermore, we expected that the likely prospect of secession would reduce fusion by diminishing collective ties toward the country. In contrast, based on conceptual analysis and the results of Study 2, we expected that secession salience would not diminish relational ties, willingness to fight and die for the group, or relative stability. Finally, we did not expect the perceived valence and relevance of the independence of Catalonia for the country to interact with fusion with the country and posttest timing.

Method

Preliminary study

Prior to the regional elections, we conducted a preliminary study to examine the valence and relevance that Spaniards assign to the independence of Catalonia and the attributions

they made regarding this issue. One hundred and seventy-six (63.1% women, mean age = 36.28, SD = 11.72) Spaniards participated in this preliminary study. They indicated how they perceived the consequences for Spain of the independence of Catalonia in terms of valence [from 0 (very negative) to 6 (very positive)] and relevance [from 0 (not at all important) to 6 (very important)]. Then they indicated who had greater responsibility of the current situation between Catalonia and Spain: (a) Catalan politicians, (b) Spanish politicians, (c) the citizens of Catalonia, and (d) the citizens of Spain. Finally, they indicated whether the desires for independence in Catalonia were due to (a) economic interests, (b) political reasons, or (c) feelings of identity. Two *t*-tests on the valence and relevance of the consequences of the independence of Catalonia for Spain as compared with the theoretical midpoint of the scales (3), indicated that the consequences were perceived as negative, $t(175) = -14.75$, $p < .001$, 95% CI = −1.489 to −1.142, $M = 1.69$, SD = 1.18, and important, $t(175) = 9.36$, $p < .001$, 95% CI = 0.852 to 1.313, $M = 4.09$, SD = 1.55. Regarding the attribution of blame, most participants indicated that the problem between Spain and Catalonia was due to politicians (55.1% chose Catalan politicians and 40.3% chose Spanish politicians). Only 4.5% of participants blamed citizens (3.4% chose Catalans and 1.1% chose Spaniards). Regarding the reasons underlying the desire for independence in Catalonia, the most cited motive (43.8%) was the economic interests, followed by political motives (34.1%) and identity (22.2%). In sum, participants perceived the independence of Catalonia to be a negative and consequential event caused mainly by politicians, and driven by economic and political interests more than by feelings of identity.

Participants

Four hundred and forty-one (63% women, mean age = 37.26, SD = 11.70) Spaniards (undergraduates and non-students) voluntarily participated in this study. No pro-independence Catalans participated.

Procedure

During the pretest, participants completed the verbal fusion scale ($\alpha = .85$), considering Spain as the focal group. Ten months later, participants were asked to complete the posttest. All but 36 of the original participants completed the posttest. For the posttest-timing manipulation, participants randomly assigned to the *before-elections* condition completed the posttest during the week preceding the regional elections; those assigned to the *after-elections* condition completed the posttest during the week following the elections. Since personal agency and desire to leave the group did not change in previous studies, we simplified the questionnaire of wave 2 by excluding these variables. Participants completed the same measures of collective ties, $r(418) = .91$, relational ties, $r(418) = .80$, posttest fusion, $\alpha = .90$, and willingness to fight and die for the country, $\alpha = .83$, as in previous studies. Additionally, they rated the consequences of the independence of Catalonia for Spain in terms of valence and relevance. Upon completion of the study, participants were debriefed and thanked.

Results

As we expected, the interactive effect of timing and fusion was not qualified by any higher order interaction involving perceived relevance or valence. For the sake of clarity, we did not include them as predictors in the following analyses.

Table 10. Study 3. Regression analysis on collective ties.

Predictors	*B*	SE	*t*	*p*	95% LLCI	95% ULCI
Fusion	0.58	.06	10.46	<.001	0.47	0.69
Condition	−0.08	.07	−1.07	.28	−0.22	0.06
Condition* Fusion	−0.12	.06	−2.09	.04	−0.23	−0.01
Condition* [Fusion = −1.29]	0.07	.11	0.68	.49	−0.14	0.29
Condition* [Fusion = 0.00]	−0.08	.07	−1.07	.28	−0.22	0.06
Condition* [Fusion = 1.29]	−0.23	.10	−0.10	.02	−0.41	−0.04

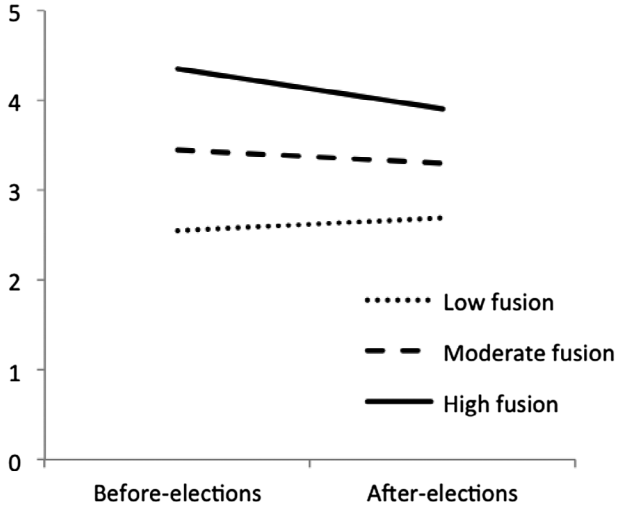

Figure 6. Study 3. Collective ties as a function of pretest fusion and posttest timing.

Regression analyses (evidence of absolute change)

We conducted four multiple regression analyses using the following predictors: fusion at pretest (centered), timing (effect coded, −1 before elections, 1 after elections), and the 2-way interaction. The outcome measures were collective ties, relational ties, posttest fusion, and willingness to fight and die.

Collective ties. The regression analysis on collective ties provided evidence of both contextual sensitivity and stability of group averages. Evidence of contextual sensitivity came from a significant interaction between pretest fusion and posttest-timing (see Table 10). As illustrated in Figure 6, the posttest-timing manipulation was significant for participants who were strongly fused. However, the posttest-timing manipulation was not significant for moderately fused nor weakly fused. Evidence of stability came from the main effect of pretest fusion. The effect of timing was not significant.

Identity fusion. Evidence of contextual sensitivity came from a significant interaction between pretest fusion and posttest-timing (see Table 11). As illustrated in Figure 7, the posttest-timing manipulation was significant for participants who were strongly fused. However, the posttest-timing manipulation was not significant for moderately fused nor weakly fused. The regression analysis on posttest fusion also provided evidence of stability in that the main effect of pretest fusion was significant. The effect of timing was not significant.

Table 11. Study 3. Regression analysis on posttest fusion.

Predictors	*B*	SE	*t*	*p*	95% LLCI	95% ULCI
Fusion	0.56	.04	13.66	<.001	0.48	0.64
Condition	−0.04	.05	−0.73	.47	−0.14	0.06
Condition* Fusion	−0.13	.04	−3.11	.002	−0.21	−0.05
Condition* [Fusion = −1.29]	0.13	.07	1.93	.05	−0.002	0.26
Condition* [Fusion = 0.00]	−0.04	.05	−0.73	.47	−0.14	0.06
Condition* [Fusion = 1.29]	−0.20	.08	−2.51	.01	−0.36	−0.04

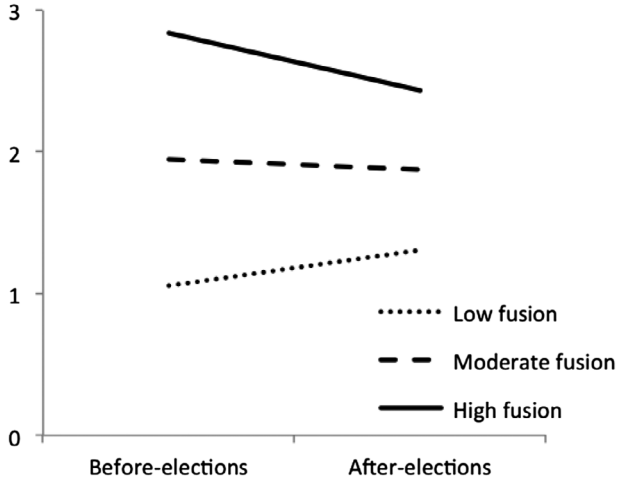

Figure 7. Study 3. Posttest fusion as a function of pretest fusion and posttest timing.

Table 12. Study 3. Regression analyses on relational ties and willingness to fight and die.

	Relational ties		Fight and die	
Predictors	*B*(SE)	95% CI	*B*(SE)	95% CI
Fusion	0.49 (.05)***	0.38–0.59	0.33 (.04)***	0.25–0.41
Condition	−0.10 (.07)	−0.23–0.03	−0.02 (.05)	−0.11–0.07
Condition* Fusion	−0.05 (.05)	−0.16–0.06	−0.04 (.04)	−0.13–0.04

***$p < .001$.

Relational ties and willingness to fight and die for the group. The regressions on relational ties and willingness to fight and die only yielded evidence of stability of group averages in the form of a main effect of pretest fusion (see Table 12). No evidence of contextual sensitivity emerged, as no other effect was significant.

Mediational analysis

To test whether relational and collective ties mediated the interactive effect of pretest fusion and timing on posttest fusion, we conducted a bootstrapping test (*n* boots = 5000) using Model 8 of the PROCCESS macro considering collective and relational ties simultaneously as potential mediators of the interactive effect between pretest fusion and timing on posttest fusion. As shown in Figure 8, collective ties partially mediated the impact of the interaction between the pretest fusion and timing on posttest fusion, IE = −0.04, 95% CI = −0.0749 to

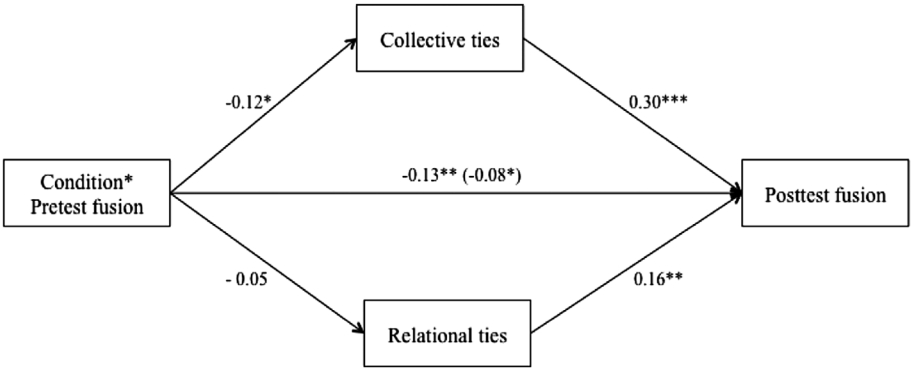

Figure 8. Study 3. Indirect effect via collective and relational ties.

Table 13. Study 3. Descriptive statistics and correlations.

	M	SD	1	2	3	4	5
1. Pretest fusion	2.29	1.29	–				
2. Posttest fusion	1.90	1.26	.56**	–			
3. Collective ties	3.37	1.61	.46**	.68**	–		
4. Relational ties	3.21	1.47	.42**	.62**	.78**	–	
5. Fight/die	0.90	1.01	.42**	.70**	.44**	.42**	–

**$p < .01$.

−0.0029. However, the indirect effect via relational ties was not significant, IE = −0.01, 95% CI = −0.0305 to 0.0069.

Correlational analyses (Evidence of relative change)

Table 13 contains the descriptive statistics and correlations among variables. Pretest and posttest fusion were highly and positively correlated, indicating that participants tended to maintain their relative positions after the event. The correlations between pretest and posttest fusion, collective and relational ties and willingness to fight and die for the group were high and positive.

Discussion

Study 3 provides evidence of contextual sensitivity and stability. As in previous studies, strongly fused individuals displayed more sensitivity to group-related outcomes than moderately and weakly fused participants. As in Study 2, strongly fused participants were especially inclined to reduce their fusion scores in response to an immediate threat of secession and this effect was mediated by the weakening of the collective ties to the country. At the same time, relational ties to ingroup members played no such mediational role.

Evidence for the stability of fusion also emerged in that relational ties as well as the willingness to fight and die for the country remained high for strongly fused participants. Furthermore, relative stability in fusion was high such that participants tended to maintain their relative position within the group.

Results of Study 3 are similar to results of Study 1 and 2 even though the historic event and the samples were different. In addition, in Study 3 we recruited a larger sample than in Studies 1 and 2, and the sample included non-students as well as students. Furthermore, we showed that the perceived valence and relevance of the event did not interact with pretest fusion or timing.

General discussion

Whereas some perspectives on identity have emphasized the fluidity of social identities (Tajfel & Turner, 1979), others have emphasized the relative stability of personal identity (McAdams & McLean, 2013). A growing body of evidence (e.g., Ethier & Deaux, 1994) suggests that both viewpoints capture a portion of reality. Our findings offer further support for a relatively nuanced view of the stability of identity. On the one hand, our findings suggest that the absolute fusion scores of strongly fused participants were sensitive to contextual influences. On the other hand, although statistically significant, the changes in fusion that strongly fused individuals displayed were modest in magnitude – in no instances did the average fusion levels of strongly fused persons approach that of moderately or weakly fused individuals. Furthermore, changes in fusion were not accompanied by corresponding diminutions in personal agency and willingness to fight and die for one's group, nor increases in the desire to leave the group. Finally, the rank orderings of participants' fusion scores remained remarkably stable in all three of our studies.

Interestingly, the very individuals who were most devoted to the group – strongly fused persons – were also the ones who changed their scores the most in response to important group-related events. That is, to a greater degree than weakly and moderately fused participants, strongly fused participants adjusted their average fusion scores downward in response to institutional corruption and existential threats to the group. These findings fall in line with the normative conflict model of dissent (Packer, 2008). This model states that strongly identified members do not support their group blindly when they perceive that norms are harmful to the collective. Instead, they express collectively oriented dissent with the goal of changing those norms for the benefit of the group. This reaction is likely to occur when group members perceive high levels of normative conflict, but the group remains important to them.

In our studies there was also evidence indicating that although collective ties faltered in the wake of existential threats to the group, relational ties did not. This pattern makes sense, in that strongly fused participants should be especially attuned to the welfare of the category and thus be strongly reactive to positive and negative developments. However, the fate of one's country may have little influence on the quality of one's relationships to other group members. More concretely, our participants could grow skeptical of Spain's future without allowing this skepticism to poison their perceptions of rank-and-file Spaniards (Prentice et al., 1994). In fact, our preliminary study showed that Spaniards overwhelmingly blamed the potential disintegration of the country on politicians rather than their compatriots. In contrast, relational ties may vary with other types of events involving intragroup harmony or interactions (e.g., demonstrations, intragroup conflicts, etc.). In fact, recent field studies indicate that perceiving a sense of emotional communion with other group members strengthen identity fusion in collective gatherings (Páez, Rimé, Basabe, Wlodarczyk, & Zumeta, 2015).

Importantly, despite fluctuations in fusion, public expressions of alignment with the group remained stable. That is, despite the historic negative events, strongly fused participants continued to express their intention to channel their agency into the group, including fighting and dying for the group and remaining in the group. Overt manifestations of alignment with a group are not entirely consistent with personal feelings of attachment as research on de-radicalization suggests (see Björgo & Horgan, 2008). Despite diminutions in identity fusion, other factors can still motivate extreme pro-group actions for a long time (e.g., fear of retaliation, lack of alternative relationships, conformism, etc.).

At the same time, although negative events may tarnish one's image of the collective category, they will not undermine one's willingness to fight for one's homeland, which after all, consists of millions of fellow citizens and relatively few politicians. Hence, although strongly fused individuals were uniquely sensitive to context, the impact of such sensitivity was compartmentalized in ways that guaranteed that their commitment to act on the group's behalf remained largely intact. Future work should delve deeper into this compartmentalization process.

One limitation of our research is that we only examined reactions to events that were internal to the ingroup. In the face of external threats from rival groups, the reaction of strongly fused persons may have been the mirror opposite to the reactions we report here – that is, *increased* fusion in response to an outgroup threat. In fact, the majority of research on social identity threat has focused on intergroup scenarios. A broad range of studies (e.g., Spears et al., 1997; van Zomeren et al., 2008) shows that, as compared to low identifiers, high identifiers are more reactive to a social identity threat and more willing to engage in collective action against ingroup disadvantage. Future research should determine whether the source of identity threats (ingroup vs. outgroup) might moderate the reactions of strongly fused persons to the vicissitudes of their group.

In emphasizing the activities of strongly fused individuals, we have offered little insight into the perceptions and prerogatives of weakly fused individuals. Negative events slightly increased fusion in weakly fused individuals, but the effect did not reach significance. One lingering question is why they appeared more oblivious to the historic events that occurred to their country than strongly fused individuals. The simplest explanation is that their national identity was not a high priority for them because, for instance, their personal (Schmitt, Silvia, & Branscombe, 2000) or regional identities (see Ros, Huici, & Gómez, 2000) are more important.

Alternatively, one could ask if measurement artifacts (e.g., regression to the mean, floor effect) contributed to the pattern of results that we observed. A floor effect might have restricted the scores of weakly fused individuals, such that it was possible to increase but not decrease fusion scores as a response to a negative event. A floor effect, however, could not explain why moderately fused failed to change their fusions scores. Regression to the mean should affect participants of different conditions to the same extent and, of course, it could not account for our evidence of the mediators of changes in identity fusion. For example, the results of Studies 2 and 3 suggest that collective, but not relational, ties to the group mediated changes in fusion in response to an existential threat; relational ties to the group were unaffected by the context manipulation or timing of the posttest.

On a more practical note, our evidence of the stability of fusion indicates that bringing people to "de-fuse" from a group may be quite challenging. Our evidence clearly suggests that reducing longstanding allegiances to problematic groups (e.g., ISIS, Al Quaeda) may be

a daunting task. Clearly, undermining the collective ties that partly underpin feelings of fusion seems to be insufficient to promote a major change in the alignment with one's group. Given that fused individuals maintain especially close relationships with other group members, future studies should check whether other strategies that weaken the relational ties that encapsulate those individuals in closed groups might facilitate de-fusion (for a related analysis, see Björgo & Horgan, 2008). An additional difficulty is that negative historic events did little to diminish willingness to fight and die for, and remain in, the group. Future research should explore how alterations in fusion might be translated into significant behavioral changes. In light of the importance of defusing people from socially harmful groups, we hope that future researchers will focus their efforts on this vexing problem.

Note

1. Participants in studies 1–2 were attending a distance-learning institution that includes students from all over Spain. In the preliminary studies and in Study 3 we used a snowball technique, such that students asked their friends and family to participate. This included participants who resided in the states of Catalonia and the Basque Country where separatist and anti-Spain sentiments have been historically high. Those who did not self-identify as Spaniards were excluded from the analyses (n = 0 in Study 1, $n = 2$ in Study 2, and $n = 2$ in Study 3).

   The data were collected in a manner consistent with ethical standards for the treatment of human subjects. Because there was no precedent for examining the impact of historic events on fusion scores, it was difficult to estimate effects sizes. We report how we determined exclusions, all manipulations and all variables in each study.

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