Article

On the way to fusion through the pilgrims' route: Factors that maintain identity fusion in collective rituals

Roberto M. Lobato[1] (iD) and Mario Sainz[1,2] (iD)

Abstract

Identity fusion, a visceral union between personal and group identity is considered to be triggered and maintained by collective rituals with certain characteristics (e.g., opaque causal actions, synchrony, high excitement) and by recalling such rituals. The purpose of the present research was to determine the factors that maintain identity fusion after taking part in the pilgrimage of the Way of Saint James. We conducted a study with pilgrims ($N = 609$) to analyze the factors associated with the characteristics of rituals (Wave 1; finishing point of the pilgrimage) and the sharing of episodic memories (Wave 2; three months later) that contribute to maintaining identity fusion. Results indicated that engaging in ritual practices and recalling episodic memories of the pilgrimage through contact with other pilgrims contribute to maintaining identity fusion. The importance of contact after taking part in the ritual is discussed.

Keywords

identity fusion, maintainers, pilgrimages, rituals, Way of St James

The visceral union between personal and group identity—a process known as identity fusion—has several social implications, such as the willingness to engage in progroup behaviors (see e.g., Gómez et al., 2017; Swann, Gómez, Seyle, Morales, & Huici, 2009). Identity fusion has been identified in many different contexts and social groups, such as national and religious groups (Besta, Gómez, & Vázquez, 2014; Bortolini, Newson, Natividade, Vázquez, & Gómez, 2018), soccer hooligans (Newson, Buhrmester, & Whitehouse, 2016), and war combatants (Gómez et al., 2017; Whitehouse, McQuinn, Buhrmester, & Swann, 2014). Authors of various studies have provided a theoretical approach to the components of identity fusion (Swann, Jetten, Gómez, Whitehouse, & Bastian,

2012) and have evaluated its consequences (e.g., Swann, Gómez, et al., 2014). However, less research has been conducted on the factors that maintain identity fusion over time (e.g., Vázquez, Gómez, & Swann, 2017). Considering this, in the present

[1]Mind, Brain, and Behaviour Research Centre (Centro de Investigación Mente, Cerebro y Comportamiento or CIMCYC), Faculty of Psychology, University of Granada, Spain.
[2]School of Psychology, University of Monterrey, Nuevo Léon, Mexico

Corresponding author:
Mario Sainz, Centro de Investigación Mente, Cerebro y Comportamiento (CIMCYC), Lab. 15, Department of Social Psychology, Faculty of Psychology, University of Granada, Campus de Cartuja s/n, 18071, Granada, Spain.
Email: msainzmartinez@ugr.es

research we focused on the factors that maintain it by conducting a two-wave study with pilgrims on the Way of Saint James.[1] This research adds to the literature on identity fusion by analyzing this phenomenon with pilgrims, as well as the psychology behind pilgrimages (i.e., collective rituals; Hobson, Schroeder, Risen, Xygalatas, & Inzlicht, 2018). Our study also provides insight into the principle of irrevocability of identity fusion (Swann et al., 2012) by exploring whether this principle is related to some of the characteristics of the ritual or to the process of recalling it over time once it has ended.

Identity Fusion

Identity fusion occurs when social identity becomes an essential component of the personal self-concept (Gómez & Vázquez, 2015; Swann & Buhrmester, 2015; Swann et al., 2012). It is described as a visceral feeling of unity with the group in which the personal self and the social self merge; thus, the boundary between both identities becomes permeable. The result is a strong union within the group, even though the identity of the personal self and the social self maintain a certain degree of independence (Besta, 2017).

Previous evidence has shown that identity fusion is a separate process from general identification with the group (Swann et al., 2012), and the consequences of both processes are diverse. Compared to social identity, identity fusion has been shown to be a better predictor of willingness to engage in costly sacrifices, such as fighting and dying for the ingroup in extreme conflicts, without any cost–benefit calculation (Swann, Buhrmester, et al., 2014; Swann, Gómez, Huici, Morales, & Hixon, 2010; Swann et al., 2009). Evidence has shown that identity fusion can also predict other outcomes apart from violent behaviors. For instance, individuals fused with their country were particularly fast at racing an avatar representing their own country (Swann et al., 2010), donated more money to their group (Gómez, Morales, Hart, Vázquez, & Swann, 2011; Swann et al., 2010), were more willing to donate funds for the victims of the 2013 Boston Marathon bombings (Buhrmester, Fraser, Lanman, Whitehouse, & Swann, 2014), and exhibited a sense of lifelong loyalty that might contribute to elicit other prosocial behaviors (Newson et al., 2016).

Pathways Toward Identity Fusion

It has been argued that identity fusion with the group results from perceptions of shared essence. Whitehouse (2018) states that there are two different pathways that promote this process: sharing genes (i.e., ties of kinship; Vázquez, Gómez, Ordoñana, Swann, & Whitehouse, 2017) and sharing experiences. Moreover, Swann, Buhrmester, et al. (2014) consider that sharing values is another pathway. The pathway of sharing experiences involves undergoing transformative experiences with other ingroup members (e.g., pilgrimages). These experiences ultimately shape the personal and group identities of the people involved in them (Whitehouse & François, 2017). In this regard, Whitehouse and Lanman (2014) argue that particularly intense events have the power to shape the personal biography of individuals. Previous literature suggests that, when these events are shared by the members of a group through a process of reflection over time, such individuals are more willing to perceive these events as significant shapers of personal and group identity (Richert, Whitehouse, & Stewart, 2005). Personal and social identity can become fused as a result of sharing a transformative experience over time, which ultimately makes it likely for group members to see each other as *psychological relatives* (Jong, Whitehouse, Kavanagh, & Lane, 2015).

In this context, it has been highlighted that certain social rituals (e.g., reading texts, secret handshakes, chants) tend to promote ingroup members' experience of having something in common (see e.g., self-expansion: Aron & Aron, 2001; shared identity: Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; mechanical solidarity and collective effervescence: Durkheim, 1964; communal sharing: Fiske, 1991; the secret handshake among high-class individuals: Fiske, Moya,

Russell, & Bearns, 2012; spontaneous communitas: Turner, 1969). In particular, according to Whitehouse (1995), some components of rituals tend to result in participants developing a psychological kinship, understood as an extreme level of relationship through which one gets to consider the other members of the group as if they were close relatives. Based on this evidence, it has been considered that the psychological kinship developed through rituals could be equated to identity fusion (Whitehouse & Lanman, 2014).

Previous literature has highlighted two main modes of rituals as shapers of psychological kinship: *doctrinal practices* and *imagistic practices* (Whitehouse, 2015; Whitehouse & François, 2017; Whitehouse & Lanman, 2014). In this study we focused on imagistic practices, which encompass a combination of conventional opaque causal actions and high levels of dysphoric excitement (i.e., high emotional arousal). An example is a physical performance in front of a rival in a competition (e.g., the haka in rugby, initiation rituals in student dormitories, political chants). These imagistic practices work together to produce identity fusion among individuals, making them feel as if they were psychological relatives and preparing them to participate in high-risk activities (e.g., fight to protect the group).

Components of Rituals That Trigger Identity Fusion

According to Whitehouse and colleagues (Whitehouse, 2015; Whitehouse & François, 2017; Whitehouse & Lanman, 2014), imagistic practices can fuel identity fusion. Considering this, in the present research we focused on the components of imagistic practices in rituals. The first component is opaque causal actions, an inherent characteristic of rituals that consists in engaging in an action that has been preestablished. Individuals engage in these actions, which lack any rational structure, by simply following the social rules or behaviors that are considered to be appropriate (e.g., special greetings, chants, songs).

The second component is emotional reaction to a ritual, which can be intense or mild. According to Richert et al. (2005), rituals that elicit a strong emotional reaction are more prone to shape identities and be life-changing experiences than those that elicit lower levels of emotional response (i.e., low arousal). Additionally, Newson et al. (2016) found that the former are highly self-shaping and result in high levels of identity fusion and lifelong loyalty when the arousal is caused by dysphoric feelings (e.g., anxiety, disaffection) or euphoric feelings (e.g., excitement, happiness). Páez, Rimé, Basabe, Wlodarczyk, and Zumeta (2015) found that people expressed stronger feelings of fusion after participating in a group walking ritual. This relationship was mediated by perceived emotional synchrony. Previous research has also shown that perceived pain and suffering during rituals can promote empathic arousal, which increases prosociality (Xygalatas et al., 2013). Therefore, in the context of pilgrimages, apart from high emotional experiences, perceived psychical pain and suffering (e.g., blisters on one's feet) may also modify personal identity.

The third component is the synchronicity of movements among participants in collective rituals. Synchrony refers to the interpersonal matching of rhythmic behavior, such as dancing or singing with others (McNeill, 1995). In the context of a pilgrimage, this concept can refer to activities such walking/cycling or praying with other pilgrims along the route, but also to previous activities in preparation of the pilgrimage, such as physical training with friends or relatives who will also engage in it. It has been proposed that this synchronicity may trigger identity fusion in collective rituals (Whitehouse & Lanman, 2014). It seems that being in synchrony with others can increase the feeling of connection among individuals, which ultimately shapes the way they perceive themselves (e.g., self-construal; Markus & Kitayama, 1991). Previous research has revealed that synchrony influences group behavior, such as the prosociality that members exhibit toward other members (e.g., Launay, Dean, & Bailes, 2014; Reddish, Fischer, & Bulbulia, 2013) or toward outgroup members (Reddish, Tong, Jong, Lanman, & Whitehouse, 2016). This synchrony with others can also be applied to the context of a

pilgrimage in which participants share the same route and walk together for several days.

In conclusion, intrinsic elements of rituals can promote a change in the personal self toward fusion with the social self. In the context of the Way of Saint James pilgrimage, this change in self-definition may be triggered by various factors such as the special greetings among pilgrims: "*¡Buen camino, peregrino!*" ("Have a good way, pilgrim!"); pilgrims' symbols (e.g., carrying the scallop of Saint James), the act of leaving stones on the road to mark the route to others (i.e., opaque causal actions), and the synchrony during the pilgrimage (e.g., pilgrims walking together, the common goal of reaching Santiago, sharing accommodation and supplies with other pilgrims). In addition, the fact that pilgrims engage in a physical experience that usually implies walking long distances, becoming psychologically exhausted (e.g., negative emotions), and feeling euphoric at the end of the pilgrimage (i.e., excitement) may promote identity fusion.

Maintaining Factors of Identity Fusion

Once personal identity has become fused with social identity through the aforementioned elements of collective rituals, a legitimate question is how identity fusion persists over time. Irrevocability, one of the principles of identity fusion, implies that once people are fused, they tend to remain fused (Gómez & Vázquez, 2015; Swann & Buhrmester, 2015; Swann et al., 2012). One of the reasons that contribute to this irrevocability is the relational ties principle, which implies that actual or imagined relational bonds with other group members are likely to reinforce identity fusion. Nevertheless, as discussed by Fredman et al. (2015), it would be an overstatement to say that fusion is completely irrevocable. In this regard, Vázquez, Gómez, and Swann (2017) found that historic threats to the ingroup, such as a scandal involving the royal family or the separatist efforts of a prosperous region of Spain, weakened collective but not relational ties among individuals with a strong identity fusion.

The result was a weakening of identity fusion. Furthermore, Páez et al. (2015) found that identity fusion decreased one week after participating in a group walking ritual, showing that the effects of rituals are limited in time. Therefore, as Vázquez, Gómez, and Swann (2017) pointed out, identity fusion is a stable process although it can also have contextual sensitivity; in other words, the strength of identity fusion can vary depending on contextual events. This implies that some variables may contribute to reducing and others to maintaining the strength of identity fusion. For this reason, in the present study it seemed plausible to expect the strength of identity fusion to increase or decrease as a function of certain events once the ritual was over.

Regarding the factors that may contribute to maintaining fusion, previous evidence from the theory of rituals suggests the following: for fusion to be maintained, people must perceive these rituals as personal shapers but must also become involved in a process of *reflection over time* (spontaneous exegetical reflection; Whitehouse & Lanman, 2014). Whitehouse et al. (2014) considered that a life-changing experience prompts a considerable amount of later recollection (i.e., reflection over time) through a process of bringing an episodic event back to one's conscience (e.g., recalling the ritual). This tends to generate richer representations of the episode and its significance (Richert et al., 2005), which is likely to increase identity fusion. The recollection process is similar to the reinforcement of other events, such as traumatic situations. The representation of these events can be reinforced through interactions with other members who experienced the same traumatic events, but also through later recollection of such events or stimuli. In terms of a pilgrimage, reflection over time may be enhanced by interactions (physical or online, through social media) with fellow participants or by souvenirs that people keep (e.g., the scallop shell or the *compostelana*—the certificate of having completed the pilgrimage), which promote the recall of the experiences undergone.

Previous evidence by Richert et al. (2005) and Russell, Gobet, and Whitehouse (2016) has also

shown that participants who had a strong emotional reaction (i.e., euphoria) during a ritual, recalled more episodic memories in the form of analogies, that is, exhibited deeper spontaneous exegetical reflection. Similar effects have been found with rituals involving high levels of dysphoria (Xygalatas, 2007). Therefore, rituals that include the trigger elements of identity fusion are likely to lead to greater reflection over time, which may ultimately be the factor that contributes to maintaining identity fusion after the ritual is over.

The Present Research

The present research was designed to explore the factors that maintain identity fusion over time. To do so, we focused on factors from the theory of rituals that seem to trigger identity fusion (Wave 1) and maintain it (Wave 2) in pilgrims after taking part in the Way of St James (a pilgrimage that has different starting points and whose goal is to reach Santiago de Compostela, a city in northwestern Spain, to pay tribute to the tomb of Saint James the Apostle). The pilgrimage to Santiago can be understood as a ritual practice (Schnell & Pali, 2013), given that pilgrims take part in actions that involve behavioral and cognitive patterns associated with rituals, such as having a common goal (i.e., euphoric element), experiencing physical pain (i.e., dysphoric element), performing a routine activity together (i.e., synchronous element), and performing opaque causal actions (e.g., wearing the shell that identifies pilgrims in the Way of St James, using specific greetings among pilgrims). Thus, after this pilgrimage, we expected the factors associated with it to activate the irrevocability principle that maintains identity fusion over time (Wave 1). We considered that, after the pilgrimage, identity fusion would also be maintained over time by recalling episodic memories (Wave 2). Based on this, we hypothesized that the maintenance of identity fusion (i.e., the principle of irrevocability; Wave 2) would be predicted not only by identity fusion (Wave 1) but also by the characteristics of rituals mentioned before (i.e., opaque causal actions, exciting/painful experiences, and synchrony) and the

recollection of episodic events (i.e., reflection over time).

Method

All materials and preregistration information for this study can be found online (osf.io/tkrdv).

Wave 1: Participants, Procedure, and Measures

For Wave 1, participants were recruited at the Praza do Obradoiro in Santiago de Compostela, which is the usual ending point of this pilgrimage. Sample size was calculated using G*Power analysis (Faul, Erdfelder, Buchner, & Lang, 2009) for a bivariate logistic regression analysis, $OR =$ 1.5; Pr (H0) = .03; α = .05; 80% power, based on previous studies by Gómez, Brooks, et al. (2011). Results revealed that a minimum of 242 participants was required. A larger sample was recruited to ensure a minimum number of participants in Wave 2 despite the expected experimental mortality. The final sample was composed of 670 participants. Following the inclusion criteria, only native Spanish speakers were included. This resulted in a sample of 609 participants (278 males, 330 females, one unidentified; $M_{age} = 31.18$, $SD = 9.86$). The sample was representative of the population of Spanish pilgrims at the time of data collection (August 2017), according to the data provided by the Pilgrims' Office.[2] A detailed description of the sociodemographic characteristics of the sample can be found in the Supplemental Material 1.

Pilgrims were approached once they had finished the pilgrimage (i.e., when they arrived at the Praza do Obradoiro) and asked to volunteer in a study about their experiences during the pilgrimage. Once they agreed to participate, they were given a questionnaire with the different measures. Most questions were selected from previous studies focused on pilgrims in the Way of St James (Kim, Kim, & King, 2016; Oviedo, de Courcier, & Farias, 2014). Given the high number of variables, we decided to group them so that the explanation of the results would be more concise.

Table 1. Summary of variables, descriptions, and answer options included in Study 1 to measure opaque causal actions and synchrony among pilgrims on the Way of St James.

Variables	Description of the variable	Answer options
Opaque causal actions:		
Kilometer per day (Km_day)	Average of kilometers traveled per day	Numeric
Km to Santiago (Km_Santiago)	Total of kilometers traveled on the peregrination	Numeric
Hours per day (Hours_day)	Average of hours spent traveling per day	Numeric
Days	Total of days that participants spent traveling	Numeric
Ending	Finish peregrination in Santiago or keep walking (alternative ending point)	Dichotomous (yes or no)
Weight	Kilograms of weight carried while walking (backpack)	Numeric
Experience	Number of times they have completed the Way of St James	Numeric
Budget	Average amount of money spent per day	Numeric
Symbology	Participants wore distinctive symbols of this particular pilgrimage (e.g., the scallop shell)	Dichotomous (yes or no)
Rituals	Participants engaged in traditions (e.g., leave stones to mark the path)	Dichotomous (yes or no)
Accommodation	Participants stayed in certified shelters (or they stayed overnight in private hotels)	Dichotomous (yes or no)
Synchrony:		
Physical training	Trained physically before they started the Way of St James	Dichotomous (yes or no)
Spiritual training	Trained spiritually before they started the Way of St James	Dichotomous (yes or no)
Group	Number of people who traveled with them	Numeric
People beginning the pilgrimage	Number of people who started the Way of St James with the participants	Numeric
People ending the pilgrimage	Number of people who ended the Way of St James with the participants	Numeric
Relation	Status of people with whom they traveled (partner, family, friends, tour, or other)	Dichotomous (partner vs. other)
Conveyance	Participants traveled walking (or by other means such bicycle, horse, etc.)	Dichotomous (yes or no)

For that purpose, we performed a hierarchical cluster analysis with the Wald method to group the measures of the three theoretical factors of rituals (i.e., opaque causal actions, synchrony, and excitement). Results of this cluster analysis allowed us to classify the ascription of each individual indicator to one of the three components of rituals. In what follows, we present all measures grouped according to the results of the cluster analysis.

Opaque causal actions and synchrony among pilgrims. To measure the extent to which pilgrims participate in the rituals associated with the Way of St James (e.g., leaving stones to show the way to other pilgrims, wearing distinctive symbols of pilgrims such the scallop shell), and synchrony among pilgrims (e.g., number of people who traveled together), we included a number of measures about the experience of individuals in the pilgrimage (see Table 1).

Excitement. To measure the excitement of pilgrims during the pilgrimage, the following measures were used: the Suffering Scale (Jong et al., 2015), the Pain Numeric Rating Scale (Jensen & Karoly, 2001), and the Positive and Negative Affect Schedule (Sandín et al., 1999). Suffering during the pilgrimage was measured by using two indicators, one of its quantity: "During the pilgrimage, how often would you say that you suffered (physically, emotionally, or otherwise)?" (1 = *never*, 7 = *frequently*), and one of its severity: "During the pilgrimage, to what extent would you say that you suffered (physically, emotionally, or otherwise)?" (1 = *not at all*, 7 = *extremely; r* = .73, *p* < .001). Additionally, we used the Pain Numeric Rating Scale (Jensen & Karoly, 2001). This scale consists of four indicators that refer to degree of pain (e.g., "On a scale of 0 to 10, how would you rate your usual level of pain during the pilgrimage?"; α = .79). Finally, we used the Positive and Negative Affect Schedule in its Spanish version (PANAS; Sandín et al., 1999) to assess individuals' emotional state during the pilgrimage. This scale included 10 positive feelings (e.g., enthusiastic, inspired; α = .82) and 10 negative feelings (e.g., irritable, ashamed; α = .80). Answers were given on a 5-point Likert-type scale (1 = *not at all*, 5 = *extremely*).

Group identity. Group identity among pilgrims was measured using a single item with a Likert scale (i.e., "To what extent do you identify yourself as a pilgrim on the Way of St James?"; 1 = *not at all*, 7 = *completely*).

Identity fusion. A pictorial scale was used to measure identity fusion (Gómez, Brooks, et al., 2011; Swann et al., 2009). The scale consists of five images that represent different degrees of overlap between two circles; one circle represents the self, while the other one represents the group. Participants were asked to choose the possible combination of circles from 1 (*completely separated*) to 5 (*completely fused*) that best represented their relationship with other pilgrims. As identity fusion scores violated the assumption of normality (Kolmogorov–Smirnov test: *b* = 0.18, *p* < .001;

Shapiro–Wilk test: *b* = 0.89, *p* < .001), following the recommendations of the authors of the scale (Swann et al., 2009), a dummy variable was created on the basis of the scores on the scale to distinguish between participants whose identity was not fused with other pilgrims (four possible options were selected, score = 0) and participants whose identity was fused (i.e., the last option, representing two completely overlapping circles, score = 1).

Sociodemographic variables. Participants were asked which route they had chosen to reach Santiago de Compostela (six possible routes: French, northern, English, Portuguese, primitive, or other). We performed a logistic regression analysis to compare the French route with the others, since it is the most common one among pilgrims. Additionally, participants were asked about their main motivations behind the pilgrimage (i.e., religious, spiritual, cultural, or sport-related; more than one answer was possible). Demographic questions about gender, age, education (1 = *basic education*, 7 = *master's/PhD level*), and religious orientation (i.e., Catholic, Protestant, atheist, or other) were also included. Finally, participants were thanked and asked to voluntarily provide a contact e-mail and the personal identification code (created using their initials and year of birth), as they would be contacted for the second part of the study.

Wave 2: Participants, Procedure, and Measures

After 3 months, we contacted the pilgrims who had participated in Wave 1 and asked them to participate in Wave 2. The final sample consisted of 199 participants (76 males, 123 females; M_{age} = 30.58, *SD* = 8.28), who answered an online questionnaire (see more details about the sample in Supplemental Material 1). Participants were asked to answer a series of questions related to the frequency with which they thought about the pilgrimage experience (e.g., "After returning from the Way of St James, how often do you think about the experiences you had during the

Table 2. Summary of variables, descriptions, and answer options included in Study 2 to measure reflection among pilgrims on the Way of St James.

Reflection over time variables	Description of the variable	Answer options
Last pilgrimage	Time since pilgrimage ended	Numeric
Material remembrances with symbolic value	Material remembrances such as souvenirs, photos, or other objects with symbolic value	Dichotomous (yes or no)
Number of souvenirs (N_souvenirs)	Number of souvenirs with symbolic value that they keep from the Way	Numeric
Reminiscence of shared experiences along the way	Sharing of experiences with friends, family, or other people after pilgrimage ended	Dichotomous (yes or no)
Number of shared experiences (N_experiences)	Number of people with whom the experience after the pilgrimage was relived	Numeric
Frequency of reminiscent thoughts (Fr_thoughts)	Frequency of reminiscent thoughts about the Way since they were back	Numeric
Frequency of shared experiences (Fr_experiences)	Frequency with which they share memories about the Way on social media	Numeric
Prevalence of contact with other pilgrims (contact)	Prevalence of contact with other pilgrims after the experience	Numeric

pilgrimage?"; α = .82), their contact with other pilgrims (e.g., "To what extent do you keep contact with other pilgrims you met on the Way of St James?"; α = .82), and the number of souvenirs they kept from the pilgrimage (e.g., "Do you keep any mementos with sentimental value from the Way of St James (e.g., photos, souvenirs such as the scallop, or other type of keepsakes associated with the Way)? Please list them"; α = .82; see Table 2). Finally, participants answered the same questions as in Wave 1 about their group identity and identity fusion with other pilgrims. Again, identity fusion scores violated the assumption of normality (K–S test: b = 0.22, p < .001; S–W test: b = 0.90, p < .001), so the variable was dichotomized.

The measures from both waves were organized into two blocks: Block 1, with the measures of group identity and identity fusion; Block 2, with the other measures included in each wave of the study. The order of the blocks was counterbalanced in both waves; we did not find any significant differences (ps > .110). Additionally, in order to identify major differences between participants in Waves 1 and 2, we compared the scores on all measures between participants who participated in Wave 2 and those who did not

(see Supplemental Materials 2a–2b). We found some significant differences between samples in the weight carried by pilgrims, $t(600)$ = 2.05, p = .041, d = 0.17; the performance of rituals, $\chi^2(1)$ = 7.08, p = .008, Cramér's V = .11; in positive feelings, $t(606)$ = 2.71, p = .007, d = 0.22; and group identity in Wave 1, $t(598)$ = 3.73, p < .001, d = 0.32. Although this provided some interesting insight for future studies, we were not able to conclude that these differences were due to participation in Wave 2.

Results

As a first step, we analyzed changes in identity fusion by comparing scores in Wave 1 and Wave 2. To do so, we created a cross-tabulation to determine how many participants who were fused in Wave 1 remained fused in Wave 2, and how many participants who were not fused in Wave 1 remained the same in Wave 2 (see Figure 1). The chi-square test demonstrated that there was a significant relationship between identity fusion in both waves, $\chi^2(1)$ = 26.55, p < .001, Cramér's V = .37. Overall, identity fusion did not change over time in fused and nonfused participants. In Wave 1, 25.3% of pilgrims reported being fused,
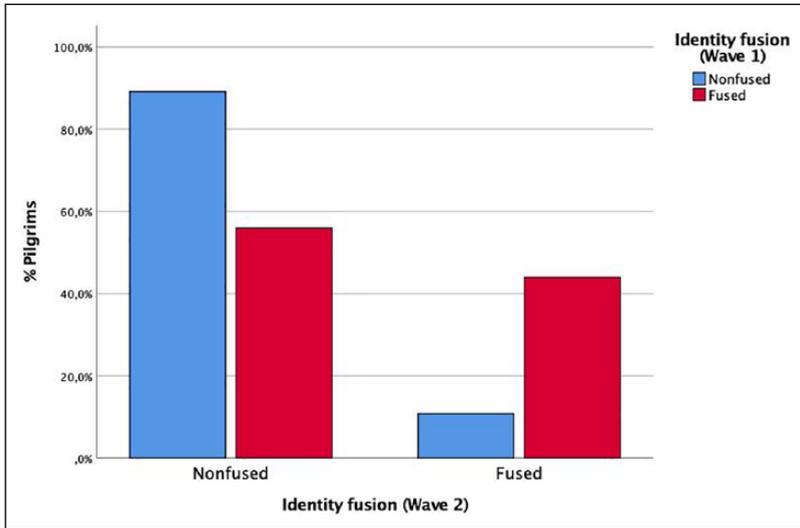
Figure 1. Percentage of fused pilgrims in Waves 1 and 2.

while 19.2% reported it in Wave 2. In total, 11.1% of pilgrims were fused in both waves.

As a second step, we performed bivariate correlations and chi-square tests with all the variables included in Waves 1 and 2 (see Table 3). We conducted this analysis in order to identify which variables were related to identity fusion in Waves 1 and 2. As shown in Table 3, identity fusion measured in Wave 1 was significantly correlated with rituals ($r = .21, p = .003$), accommodation ($r = .14, p = .047$), negative feelings ($r = -.15, p = .038$), spiritual motivation ($r = .15, p = .034$), cultural motivation ($r = -.22, p = .002$), number of souvenirs ($r = .15, p = .039$), contact with other pilgrims after pilgrimage ended ($r = .21, p = .004$), group identity in Wave 1 ($r = .35, p < .001$), and group identity in Wave 2 ($r = .19, p = .008$). In addition, identity fusion measured in Wave 2 was significantly correlated with rituals ($r = .30, p < .001$), positive feelings ($r = .16, p = .024$), spiritual motivation ($r = .23, p = .001$), cultural motivation ($r = -.17, p = .019$), number of souvenirs ($r = .22, p = .002$), frequency of reminiscent thoughts after pilgrimage ended ($r = .26, p < .001$), frequency of sharing experiences with others after pilgrimage ended ($r = .19, p = .008$), contact with other pilgrims after pilgrimage

ended ($r = .32, p < .001$), group identity in Wave 1 ($r = .18, p = .011$), group identity in Wave 2 ($r = .41, p < .001$), and identity fusion in Wave 1 ($r = .37, p < .001$). Finally, we performed a chi-square test with the categorical variables (i.e., relationship status of people with whom participants had traveled, and route chosen) and identity fusion. The relationship between the status of people with whom participants had traveled and identity fusion in Wave 2 was not significant, $\chi^2(4) = 3.64, p = .457$, Cramér's $V = .14$; the relationship between the route chosen by participants and identity fusion in Wave 2 was not significant either, $\chi^2(5) = 7.05, p = .217$, Cramér's $V = .19$.

As a last step, we performed a regression analysis to test which variables (i.e., characteristics of the ritual and reflection over time) predicted the maintenance of identity fusion in Wave 2, while controlling for identity fusion in Wave 1. To simplify this analysis, we only included the variables that were correlated with identity fusion in Wave 2 in the previous analysis. We conducted a binary logistic regression with identity fusion in Wave 2 as a dependent variable, and all the other variables which were significantly correlated with identity fusion as predictor variables (see Table 4). Such

Table 3. Bivariate Pearson correlations of all variables included in Waves 1 and 2.

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	M	SD
1. Km_day																																		26.01	13.43
2. Km_Santiago	.54***																																	187.87	147.64
3. Hours_day	.35***	.18*																																5.79	1.15
4. Days	-.03	.29***	.03																															13.56	72.79
5. Ending	.02	-.04	.01	.02																														1.08	0.28
6. Weight	.37***	.24**	.05	.04	-.03																													6.76	3.08
7. Experience	.18*	.29***	-.08	-.03	-.04	.22**																												1.67	1.24
8. Budget	-.00	-.07	.04	.07	.17*	-.10	.01																											29.25	11.01
9. Symbology	-.09	-.08	.09	.07	-.07	-.13	-.06	.11																										1.43	0.50
10. Rituals	-.07	-.08	-.04	-.07	.02	-.09	-.04	-.05	.18*																									1.61	0.49
11. Accommodation	-.06	.07	-.02	.02	-.14*	.01	-.08	-.30***	-.05	.01																								0.82	0.38
12. Physical training	.19**	.07	-.02	-.06	.07	.04	-.05	.17*	.19**	.06	-.19**																							1.70	0.46
13. Spiritual training	.01	-.10	-.10	-.06	-.02	-.06	-.10	.05	.09	.06	-.14	.30***																						1.84	0.36
14. Group	-.12	-.10	-.11	-.04	-.15*	-.01	-.03	-.10	.10	-.02	.11	.02	.01																					3.52	5.02
15. People beginning	-.09	-.12	.03	-.03	.03	-.12	-.01	-.09	.18*	.20**	-.07	-.10	-.04	.07																				4.84	12.68
16. People ending	-.12+	-.14+	-.10	.03	.24**	-.16+	-.03	.05	.05	.10	-.09	-.09	.07	.06	.08																			1.84	0.37
17. Transportation means	-.88***	-.53***	-.21**	.01	-.05	-.33***	-.14*	-.01	.11	.06	.06	-.17*	.01	.10	.06	.02																		0.93	0.37
18. Suffering	.11	.07	.07	.05	-.12+	.07	.07	.02	.10	.08	.01	.01	.09	.12	.08	.10	-.07																	3.78	1.40
19. Pain	.04	-.09	.01	.06	.01	.01	-.01	.05	-.01	.05	.01	.02	.12	.09	.09	-.09	-.01	.71***																3.70	1.77
20. Positive feelings	-.06	-.09	-.05	-.13+	-.03	-.02	-.01	-.01	.01	.09	-.06	.15*	.20**	-.01	.06	.01	.06	.03	-.04															4.08	0.51
21. Negative feelings	.09	.04	.17*	.08	.03	.09	.09	-.05	-.09	.11	-.04	.03	-.16*	.02	-.07	-.05	-.05	.27***	.30***	-.21**														1.59	0.47
22. Religious motivation	-.05	-.12+	-.17*	.13+	-.07	.04	.10	.05	.11	.18*	-.16*	.07	.23**	-.06	.23**	.10	.03	.10	.05	.04	-.06													0.21	0.41
23. Spiritual motivation	-.06	.01	.15*	.09	-.03	.04	-.08	-.08	.07	.23**	.13+	.07	.11	.16*	.01	.05	.09	.20**	.12+	.14*	.03	-.10												0.51	0.50
24. Cultural motivation	-.09	-.04	-.09	.06	.02	-.10	-.16*	.02	-.04	-.07	-.07	-.06	-.18*	-.13+	-.06	.04	.04	-.07	-.05	-.11	-.02	-.22**	-.22**											0.53	0.50
25. Sportive motivation	.13+	.17*	.11	-.05	.01	.04	.01	-.05	-.20**	-.06	.14*	.14+	-.20**	-.13+	-.08	-.09	-.11	-.15*	-.07	-.12*	.16*	-.11	-.05	.17*										0.32	0.47
26. N_souvenirs	-.07	.13+	.05	.12+	-.09	-.08	-.03	.03	.27***	.30***	-.17*	.14*	.25***	.08	-.08	.04	.06	.17*	.06	.08	-.03	.14*	-.05	-.07	-.13+									3.62	2.40
27. N_experiences	-.05	-.06	-.14*	-.02	.05	.25**	.22**	-.15+	-.08	-.07	-.17*	.19**	.22**	.01	.02	.04	.02	.01	.06	.02	.04	.19*	-.10	-.13	-.09	-.01								22.94	62.42
28. Fr_thoughts	-.04	.01	.02	.06	-.05	-.11	-.03	.12	.22**	.17*	-.16*	.19**	.16*	.05	.05	.09	.01	.12+	-.01	.25***	.01	.10	.08	-.11	-.08	.26***	.13							3.47	0.73
29. Fr_experiences	-.06	.01	-.06	-.01	-.02	-.11	.14*	.06	.09	.10	-.16*	.13+	.17*	.06	.17*	.04	.07	.05	-.01	.19**	.04	.03	.06	-.04	-.01	.21**	.11	.41***						2.07	0.91
30. Contact	-.11	.04	-.07	-.02	-.10	-.03	.18**	-.01	.06	.08	-.02	.11	-.10	.08	.08	.11	.03	.16*	.11	.21**	.09	.14*	.15*	-.23**	-.12+	.14*	.06	.34***	.32***					2.48	1.34
31. Group identity (Wave 1)	-.20**	-.01	-.07	.08	-.01	-.03	.15*	.07	.14+	.16*	.03	.09	.08	.08	.09	.01	.01	.10	.05	.23***	-.11	.29***	.06	-.17*	.04	.18*	.10	.08	.09	.22**				5.69	1.33
32. Group identity (Wave 2)	-.04	.11	.04	.08	-.01	-.02	.12*	-.03	.10	.18*	-.01	.13+	.21**	.10	.10	.20**	.05	.01	-.13+	.25***	-.07	.13+	.18*	-.15*	-.05	.15*	.14+	.47***	.37***	.31***	.36***			4.58	1.81
33. Identity fusion (Wave 1)	-.07	-.01	.01	.12	.01	-.02	.14*	-.05	.01	.21**	.14+	-.08	.04	.14+	.01	.05	.05	.05	-.01	.11	-.15*	.08	.15*	-.22**	-.04	.15*	-.06	.04	.04	.21**	.35***	.19*		-0.49	0.87
34. Identity fusion (Wave 2)	-.02	.03	.03	.13+	-.08	.05	.03	.01	.12+	.30***	.03	-.02	.14*	.08	-.02	.03	.03	.08	.06	.16*	-.10	.03	.23***	-.17*	-.12+	.22**	-.04	.26***	.19**	.32***	.18*	.41***	.37***	-0.61	0.80

Note. *p < .05. **p < .01. ***p < .001. +p < .10

Table 4. Bivariate logistic regression with identity fusion in Wave 2 as dependent variable, with raw betas, standard errors, Wald, degrees of freedom, odds ratio, and confidence intervals for odds ratio.

Variable	b (SE)	Wald	df	OR	95% CI for OR	
					Lower	Upper
Opaque causal actions:						
Rituals	1.35** (0.53)	6.60	1	3.87	1.38	10.84
Excitement:						
Positive feelings	0.33 (0.51)	0.41	1	1.39	0.51	3.75
Sociodemographic:						
Spiritual motivation	0.56 (0.52)	1.18	1	1.75	0.64	4.84
Cultural motivation	−0.26 (0.52)	0.24	1	0.78	0.28	2.14
Identity:						
Identity fusion (Wave 1)	0.84** (0.27)	9.61	1	2.31	1.36	3.93
Group identity (Wave 1)	−0.41+ (0.25)	2.76	1	0.67	0.41	1.08
Group identity (Wave 2)	0.88*** (0.23)	14.77	1	2.42	1.54	3.79
Reflection over time:						
N_souvenirs	0.06 (0.10)	0.41	1	1.07	0.88	1.29
Fr_thoughts	0.15 (0.73)	0.12	1	1.16	0.49	2.79
Fr_experiences	−0.12 (0.31)	0.15	1	0.89	0.49	1.62
Contact	0.40* (0.20)	3.94	1	1.49	1.01	2.22
Intercept:						
Constant	−7.45** (2.67)	7.81	1	0.01		

Note. b = raw regression coefficient; SE = standard error; df = degrees of freedom; OR = odds ratio.
$^+p < .10$. $^*p < .05$. $^{**}p < .01$. $^{***}p < .001$.

variables were rituals, positive feelings, spiritual motivation, cultural motivation, number of souvenirs (N_souvenirs), frequency of thoughts about the Way (Fr_thoughts), frequency of sharing experiences about the Way (Fr_experiences), contact with other pilgrims, group identity in Waves 1 and 2, and identity fusion in Wave 1. Results showed that our model was significant, $\chi^2(11) = 74.97$, $p < .001$, $R^2_{Nagelkerke} = .52$, predicting 96.2% of nonfused and 51.4% of fused pilgrims (87.6% of the total). Furthermore, rituals: $b = 1.35$, Wald $\chi^2(1) = 6.60$, $p = .010$, OR = 13.87; contact with other pilgrims: $b = 0.40$, Wald $\chi^2(1) = 3.94$, $p = .047$, OR = 1.49; group identity in Wave 2: $b = 0.88$, Wald $\chi^2(1) = 14.77$, $p < .001$, OR = 2.42; and identity fusion in Wave 1: $b = 0.84$, Wald $\chi^2(1) = 9.61$, $p = .002$, OR = 2.31, were significant predictors. By contrast, group identity in Wave 1, $b = -0.41$, Wald $\chi^2(1) = 2.76$, $p = .097$, OR = 0.67, was a marginally significant predictor.

In addition, we performed complementary binary logistic regression analyses separately for each wave (see Supplemental Materials 3–4). Interestingly, the results revealed that contact with other pilgrims was not a significant predictor of identity fusion in Wave 2, when variables from Wave 1 were not included in the regression, $b = 0.33$, Wald $\chi^2(1) = 2.68$, $p = .102$, OR = 1.38. Finally, we also performed a linear regression with the same variables as in the main logistic regression but including group identity (Wave 2) as the dependent variable (instead of identity fusion), and including identity fusion in Wave 2 as a predictor (see Supplemental Material 5). This analysis was performed to verify whether the same variables predicted identity fusion and group identity. Results showed that the model was significant, $F(11, 182) = 11.66$, $p < .001$, $R^2 = .38$, with frequency of reminiscent thoughts after pilgrimage ended ($\beta = .31$, $SE = 0.17$, $p < .001$), frequency of sharing experiences with

others after pilgrimage ended ($\beta = .17$, $SE = 0.13$, $p = .010$), identity fusion in Wave 2 ($\beta = .25$, $SE = 0.15$, $p < .001$), and group identity in Wave 1 ($\beta = .27$, $SE = 0.09$, $p < .001$) as the factors that significantly predicted group identity in Wave 2. This analysis highlighted that the predictors of identity fusion in the logistic regression and the predictors of group identity in the linear regression were different.

Discussion

Identity fusion has been shown to be a predictor of a full range of progroup behaviors (Gómez & Vázquez, 2015; Swann & Buhrmester, 2015). Due to the important consequences that can be derived from identity fusion, it seems relevant to study the factors that promote its maintenance over time. In the present research, we focused on some of the factors that might promote the maintenance of identity fusion over time (i.e., the principle of irrevocability; Gómez & Vázquez, 2015; Swann & Buhrmester, 2015; Swann et al., 2012). Specifically, we analyzed some factors related to participation in rituals and the later recall of memories of the ritual that might enhance the irrevocability of identity fusion in the context of the Way of St James pilgrimage. We hypothesized that pilgrims' participation in imagistic practices (e.g., opaque causal actions, synchrony, and excitement; Whitehouse & Lanman, 2014) and reflection over time (i.e., recalling episodic memories after completing the pilgrimage; Richert et al., 2005) would predict the maintenance of identity fusion 3 months after the end of the pilgrimage.

Our results suggested that, as the principle of irrevocability implies, once participants are fused with the pilgrim identity, they tend to remain fused even when the pilgrimage is over or even if they do not engage regularly in these practices. In other words, identity fusion in Wave 1 still predicted identity fusion in Wave 2, even when group identity was controlled for in both waves. Results also indicated that not all the proposed components of ritual practices lead to identity fusion in

the context of a pilgrimage. It seems that the factor that promotes the maintenance of identity fusion (Wave 2) is not the act of walking continuously with others (i.e., synchrony factor) or the emotional or physical experience during the pilgrimage (i.e., excitement factor), but rather participation in small rituals such as leaving stones or engaging in special greetings with other pilgrims (i.e., opaque actions factor). Moreover, not all the factors that contribute to reflection over time seemed to be predictors of identity fusion (Richert et al., 2005; Russell et al., 2016). Specifically, keeping souvenirs such as photographs or objects related to the pilgrimage (e.g., a scallop shell) did not predict maintenance of identity fusion after finishing the pilgrimage. Only reflection over time based on contact with ingroup members seemed to be crucial for the maintenance of identity fusion among pilgrims. In addition, even though it was not the objective of this study, we found that the factors that predicted identity fusion were different from those that predicted group identity in pilgrims. In short, results highlighted that performance of rituals and contact with ingroup members, along with identity fusion in Wave 1, were the key factors that predicted the irrevocability of identity fusion (and not group identification) over time.

The results also indicated that contact per se did not contribute to the maintenance of identity fusion. Specifically, our results highlighted that contact significantly predicted identity fusion when rituals were included in the regression model. This implies that identity fusion cannot be triggered by simply having contact with people who have participated in a pilgrimage. It seems that, to maintain their identity fused, people have to engage in opaque actions during the ritual, and later contact reinforces identity fusion once the ritual is over.

These findings clearly have some similarities with the literature on intergroup contact (Dovidio, Love, Schellhaas, & Hewstone, 2017). Previous evidence has shown that not every type of intergroup contact has positive outcomes (Allport, 1954/1979). This only happens when there is optimal contact under equal conditions, with the

pursuit of a common goal, institutional sanctions, and a positive outcome. Pilgrimages have some of these required elements: they are likely to promote egalitarian contact given that personal differences (e.g., socioeconomic status, provenance) become less salient; pilgrims have a common goal—reaching the finishing point of the pilgrimage; and there is often a positive outcome after the contact. Moreover, the three stages of the contact hypothesis can be identified in pilgrimages (Pettigrew, 1998). The first stage is initial contact with other pilgrims that may cause anxiety, which can be overcome by a positive personal contact. Once this contact has been established with other pilgrims, a shift in identity may take place, as superordinate goals supersede group differences and a common identity may emerge. Therefore, we consider that these common experiences during pilgrimages are likely to result in an identity fusion that can be maintained or reinforced by later contact once the ritual is over. This implies that contact with ingroup members could be one of the factors that underline the principle of irrevocability by creating a sense of connectedness and reciprocal strength (i.e., relational ties), which is in line with previous evidence (Vázquez, Gómez, & Swann, 2017).

Moreover, this evidence about the role of rituals and contact brings up questions for future research. First, the principle of irrevocability and the findings about relational ties in identity fusion may be explained by contact with ingroup members. Future studies could analyze the role of contact as a mechanism that makes identity fusion stronger by increasing relational ties and thus promoting irrevocability. Second, these results also have several implications that extend beyond the pilgrimage context. Previous research has suggested that identity fusion is a precursor of radicalization (Dugas et al., 2016) and that breaking up contact between ingroup members may facilitate defusion (Fredman et al., 2015). Given the importance of radical networks in terrorism (Sageman, 2004), the present results support the general assumption that preventing contact among radical individuals helps prevent the development of radical groups. This provides some insight into how to manage prison stays of radical individuals, which is a current concern for European countries (Bianchi, 2018; Trujillo, Jordán, Gutiérrez, & González-Cabrera, 2009). Thus, we consider that suppressing ritual practices and reducing contact among ingroup members may reduce or even eradicate identity fusion over time as a consequence of eliminating relational ties. Although we cannot assume causality given the nature of our evidence, this is an interesting finding to consider for deradicalization programs (e.g., Kruglanski et al., 2014). Finally, not everything related to identity fusion implies negative outcomes. Especially in the context of a pilgrimage, identity fusion may promote prosociality between group members (Whitehouse, 2013). Future studies should analyze how identity fusion with a group such as pilgrims influences individuals' behaviors towards outgroup members. In particular, if prosociality among pilgrims is a core value in the Way of St James, this may result in an extension of this behavior not only with ingroup members but also with outgroup members.

Although the results supported our hypothesis, some limitations apply to the present research. First, a more cautious approach is needed to define the components of rituals identified by Whitehouse and colleagues (Whitehouse, 2015; Whitehouse & François, 2017; Whitehouse & Lanman, 2014). In the present research, we grouped the indicators of the construct in a cluster analysis. Future studies should test the constructs separately in order to obtain a more reliable measure of the different components of rituals. Second, the present results highlight the factors that maintain identity fusion. However, ours was a field study, so its results cannot be explained in terms of causality. Future studies should approach this issue by conducting experimental manipulations of the components of rituals to test their effect on identity fusion. Furthermore, it would be interesting to test the reverse pathway, that is, whether identity fusion drives involvement in the repetition of rituals, in order to identify a possible feedback process. A third limitation is related to the time limits of rituals. Given that pilgrimages are rituals with blurred limits, it is difficult to identify their beginning

(e.g., the first leg of the Way or the moment individuals decide to engage in the pilgrimage) and end (e.g., the arrival to Santiago or the moment participants return to their daily routine). Future studies should include a first wave before the start of the pilgrimage instead of collecting data once pilgrims arrive to Santiago. This could be a suitable strategy to confirm that ritual factors are the triggers of identity fusion.

In conclusion, the present research provided some field evidence about changes in identity dynamics that take place during pilgrimages: once pilgrims get fused, they remain fused, supporting the principle of irrevocability. This seems to be driven by opaque causal actions in the form of small rituals during the pilgrimage and by ingroup contact once it has ended. Based on this evidence, pilgrimages seem to be a suitable context to explore identity fusion and the potential dissemination of its positive consequences to other contexts. To do so, we consider that our understanding of some of the dynamics of identity fusion could benefit from the study of the psychology of pilgrims.

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ORCID iDs

Roberto M. Lobato https://orcid.org/0000-0003-4152-7020
Mario Sainz https://orcid.org/0000-0002-2048-5872

Supplemental material

Supplemental material for this article is available online.

Notes

1. The Way of St James, also known as *Camino de Santiago*, is a Catholic pilgrimage of medieval origin whose purpose is to reach the tomb attributed to be of the Apostle Saint James, located in the crypt of the cathedral of Santiago de Compostela in Galicia, northwestern Spain.

2. In August 2017, the number of pilgrims registered at the Pilgrims' Office in Santiago was 57,680 (34,198 with Spanish citizenship; for additional information, see https://oficinadelperegrino.com/estadisticas). An analysis revealed that a minimum of 380 pilgrims was required to obtain a representative sample size.

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