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On the Way to Fusion through the Pilgrims' Route: Triggers and Maintainers of Identity Fusion During Collective Rituals

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Abstract

 Identity fusion, a visceral union between the personal and the group identity, has been considered to be triggered by collective rituals with certain characteristics (e.g., opaque causal actions, synchrony, and high excitement). In the present project, we focus on how peregrinations, a ritual with these characteristics, shapes personal identity and leads people to fuse with pilgrim's identity. Specifically, we run two studies ($N = 670$) with St. James's Way pilgrims (Northern Spain) to analyze the factors that trigger (Study 1, wave 1) and maintain (Study 2, wave 2) fusion along time. Results indicated that engaging in ritual practices and suffering during the peregrinations predicted identity fusion, while remembering episodic memories through contact with other pilgrims favors the maintenance of fusion three months after peregrination. The present results add to the literature about the psychosocial factors of peregrinations by contributing to the understanding of how collective rituals might shape personal identity.

Keywords: Identity fusion, Peregrinations, Rituals, Triggers, Maintainers.

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Identity Fusion During Collective Rituals

The visceral union between personal and the group identity, a process called identify

fusion, has several social implications on the behaviors in which people engage to protect

their group (see, for example, Swann, Jetten, Gómez, Whitehouse, & Bastian, 2012;

Whitehouse, 2018). This fused identity has been identified in many contexts and diverse

social groups, such as religious groups (Besta, Gómez, & Vázquez, 2014), soccer hooligans

(Newson, Buhrmester, & Whitehouse, 2016), or radicalized terrorists (Buhrmester, Fraser,

Lanman, Whitehouse, & Swann, 2014). While previous research has provided a wide variety

of studies that evaluated the components (Swann & Buhrmester, 2015) and consequences

(Swann et al., 2014) of identity fusion, less is known about the factors that trigger the

appearance of identity fusion or the elements that contribute to maintain it across time. In the

present project, we moved away from studying the consequences of identity fusion and

focused on the factors that trigger and maintain these fused identities. In order to overcome

our goal, we carried out a two-wave study with St. James's Way[1] pilgrims. By focusing on

pilgrims, we were not only able to analyze identity fusion in a non-violent context; it also

allowed us to identify some of the psychosocial consequences of participating in

peregrinations.

Identity Fusion

The fusion of identity occurs when social identity becomes an essential component of

personal self-concept (Gómez & Vázquez, 2015; Swann, et al., 2012). The fusion is described

as a visceral feeling of unity within the group in which the personal-self and the social-self

merge: The boundaries between both identities become porous or more permeable. The

consequence is a strong union within the group, even when the identity of the personal-self

and the social-self maintain a certain degree of independence (Gómez, López-Rodríguez,

Vázquez, Paredes, & Martínez, 2016).

Empirical evidence has shown that identity fusion is a separate process from group

identity, which has diverse consequences (Swann et al., 2014). For instance, previous

research has shown that group identity is weak when it comes to predicting self-sacrifice in

tram dilemmas (Gómez et al., 2011; Swann, Gómez, Dovidio, Hart, & Jetten, 2010) or to

predict extreme behaviors in defense of the in-group, such as the will to fight, sacrifice, and

die for the group (Swann et al., 2012). However, fusion identity has been shown to be a

predictor of these social processes. Identity fusion explains why strongly fused individuals

are willing to perform extreme behaviors in defense of the group (Fredman et al., 2015). This

tendency to defend the group is highlighted when there is a threat to the personal or group

identity (Gómez et al., 2011) or when fused people hold sacred values (Gómez et al., 2017).

In short, identity fusion has a unique role as a predictor of the performance of extreme

behaviors in defense of the group (i.e., consequences of identity fusion).

Triggers of Identity Fusion

It has been argued that fusion with the group results from perceptions of shared

essence (Whitehouse, 2018), and there are two distinct pathways that favor this process: The

first one is the process of sharing essentialized biological properties with the group in the

form of inherited phenotypic characteristics (i.e., genetic material among relatives; Vázquez,

Gómez, Ordoñana, Swann, & Whitehouse, 2017). The second pathway involves undergoing

transformative experiences with other group members that, ultimately, shape the personal and

group identities of the people involved (Whitehouse, 2013). In the present project, we

focused on the last pathway: Sharing essence through a transformative experience/shared-life

experiences (e.g., peregrinations). Whitehouse and Lanman (2014) proposed that particularly

intense events have the power to shape the personal autobiography of individuals. In addition,

when these events are shared by the members of a group through a process of reflection over time, people can come to perceive these events as significant shapers of personal and group identity. As a result of maintaining a transformative experience along the time, the personal and social identity might fuse, which ultimately favors groups members to see each other as psychological relatives (Buhrmester, Fraser, Lanman, Whitehouse, & Swann, 2014; Jong, Whitehouse, Kavanagh, & Lane, 2015; Newson, Buhrmester, & Whitehouse, 2016; Xygalatas et al., 2013).

In this context, the role of group rituals (e.g., reading of texts, secret handshakes, or chants) as a way to facilitate members of a group to come to experience something in common has been highlighted (see, for example, the self-expansion of Aron & Aron (2001); the shared identity of Cialdini, Brown, Lewis, Luce, & Neuberg (1997); the mechanical solidarity and collective effervescence of Durkheim (1964); the communal sharing of Fiske (1991); the spontaneous communitas of Turner (1969); or the secret handshake among high-class individuals from Fiske, Moya, Russell, & Bearns, 2012). In particular, according to Whitehouse (1995), some components of the rituals can favor people to end up 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 (i.e., psychological kinship). Based on this evidence, it has been considered that the psychological kinship developed through the rituals could be equated to the identity fusion that occurs in some individuals (Whitehouse & Lanman, 2014).

In collective rituals, two main packages of ritual elements can be distinguished (Whitehouse, 2015; Whitehouse & François, 2017). One of these packages is the so-called *doctrinal practices* (Whitehouse, 1995). These doctrinal practices involve what authors have called opaque causal actions (i.e., social conventions that not follow a rational procedure) frequently repeated with low levels of dysphoric excitation (i.e., low emotional arousal), such

as Sunday`s sermon or reading the company values at the beginning of each work meeting.

The repetition of these types of rituals contributes to reinforcing the beliefs, ideologies, and

values that the group hold, while these routine rituals also serve to create baseline levels of

group identification that contribute to enhanced prosociality, trust, and cooperation toward

members of, potentially, very large groups. The other package is known as *imagistic*

practices (Whitehouse, 1995). This package encompasses a combination of conventional

opaque causal actions and high levels of dysphoric excitation (i.e., high emotional arousal),

such as a physical performance in front of a competition rival (e.g., "the haka" in rugby,

initiation rituals in student's residences, or political chants). These imagistic practices work

together to produce fusion among the individuals, making them feel as if they are

psychological relatives (i.e., tied to each other) and preparing them to participate in high-risk

activities (e.g., fight to protect the group).

Components of Rituals that Trigger Identity Fusion

Among the rituals that might fuel identity fusion, previous literature has highlighted

that three components of this group-level scenarios might be crucial. The first component is

the mentioned opaque causal actions, an inherent characteristic of rituals that consists of

engaging in an action that has being pre-established. Individuals engage in these actions that

lack any rational structure by simply following the social rules or behaviors that are

considered to be appropriate (e.g., a special greeting, chant, or song). The second factor refers

to the emotional reaction to a ritual (intense emotional experiences *vs.* mild emotional

experiences). According to Richert, Whitehouse, and Stewart (2005), rituals that imply a

strong emotional reaction are more prone to shaping identities and constituting a *live-*

changing experience than rituals in which participants experience lower levels of emotional

response (i.e., low arousal). Additionally, Newson et al. (2016) found that strong emotional

rituals are highly self-shaping and result in strong levels of fusion and lifelong loyalty when

ON THE WAY TO FUSION   6

the arousal is caused by both dysphoric (e.g., anxiety or disaffection) or euphoric (e.g.,

excitement or happiness) events (Kavanagh, Jong, Mckay, & Whitehouse, 2017; Newson et

al., 2016). Therefore, it seems that intensity is the key to favoring identity fusion more than

the valence of the arousal. Previous research has also found that the perceived pain and

suffering during rituals might promote an empathic arousal that increases prosociality

(Xygalatas et al., 2013). Therefore, on the context of a peregrination, it might be possible that

not only the level of the emotional experience but also some factors related to the perceived

psychical pain (i.e., blisters on their feet) and suffering caused by the peregrination might

influence personal identity. Finally, a third element of the rituals is the synchronicity of

movements among participants of the 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 peregrination, synchronicity of movements might refer to activities such

walking/cycling or praying with other pilgrims along the route, but it might also refer to

previous activities in the preparation of the peregrination such physical training with friends

or relatives who will also engage in the peregrination. This synchronicity has been found to

be relevant as a possible mechanism that triggers identity fusion in the collective rituals

(Whitehouse & Lanman, 2014). It seems that being in synchrony with others might increase

the feeling of connection among individuals, which lastly shapes how people perceive

themselves (e.g., self-construal; Markus & Kitayama, 1991; Reddish, Tong, Jong, Lanman, &

Whitehouse, 2016). Additionally, previous research has found that synchrony along rituals

influences group behavior, such as on the prosociality that members can exhibit with co-

performers (e.g., Launay, Dean, & Bailes, 2014; Redish, Fischer, & Bulbulia, 2013) but also

with outgroup members (Reddish et al., 2016). In conclusion, intrinsic elements of rituals

might promote a change on the personal-self in favor of fusion with the social-self. In the

context of the peregrination, this change in self-definition might be triggered by different

factors such as the special greetings among pilgrims: *¡Buen camino, peregrino!* (Have a good

way, pilgrim!), pilgrim's symbols (e.g., wearing the scallop of Santiago), the act of leaving

stones on the path to indicate the route for others (i.e., opaque causal actions), or synchrony

during the peregrination (e.g., pilgrims walking together, the common goal of reaching

Santiago, or sharing accommodation and supplies with other pilgrims). But also, the fact that

pilgrims engage in a physical experience that usually implies walking long, difficult distances

on their feet or knees, being psychologically exhausted (e.g., negative emotions), or the

euphoric feeling of finishing the peregrination after long journeys of walking (i.e.,

excitement) might promote the psychological union with other pilgrims.

Maintainers of Identity Fusion

Once the personal identity has been fused with the social identity, thanks to the

contribution of the previously mentioned elements of collective rituals, one legitimate

questions is how identity fusion maintains across time. Or, in other words, what factors

contribute to keep people's identities fused? It might be expected that identity stays fused if

rituals regularly continue (e.g., a weekly meeting of a sport team or on annual conventions).

However, rituals might be realized just once in life, such as in the case of peregrinations.

Based on the suggestions of Whitehouse and Lanman (2014), to maintain identity fusion, it is

necessary that people perceive these rituals not only as personal shapers but also as a process

of *reflection over time*. These authors considered that a live-changing experience will prompt

a considerable amount of recollection afterward (i.e., reflection over time). The process of

bringing an episodic event back to the conscience (e.g., ritual) will contribute to generating

richer representations of the episode and its significance (Richert, Whitehouse, & Stewart,

2005). Lastly, this will contribute to strengthening the impression that only those who have

participated in the ritual (e.g., feelings, thoughts, or interactions) might have. The process of

reflection might occur as with other processes, such as traumatic events, in part by social

reinforcements through interactions with members of the traumatic event but also by staring

at the same events/stimulus across time. In the context of a peregrination, a reflection over

time might be promoted by interactions (physical or online through social networks) with

other members of the peregrination or by memories that people keep (e.g., the scallop shell or

the *compostelana*, which is the certificate of realization of the peregrination).

In regard to the maintaining of identity fusion, previous evidence such as Richert,

Whitehouse, and Stewart (2005) and Russell, Gobet, and Whitehouse (2016) found that

participants who had a strong emotional reaction (i.e., euphoria) to a ritual demonstrated a

greater volume and depth of spontaneous exegetical reflection (i.e., more remembering of

episodic memories and analogies). Additionally, similar effects have been found with rituals

involving higher levels of dysphoria (Xygalatas, 2007). On the whole, it can be expected that

rituals that include the elements that favor the fusion of identity will also contribute to more

reflections along the time which, ultimately, could be the factor that maintain the identity

fused afterward a period of time of completing the ritual.

The Present Research

The present research was designed to investigate the factors that shape identity by

favoring the fusion of the self with the pilgrim identity during peregrinations. Specifically,

we focused on the factors that might trigger (Study 1) and maintain (Study 2) identity fusion

after engaging in this type of rituals. By doing so, we decided to focus on the St. James's

Way peregrination (a peregrination that starts in different points and has the goal of reaching

Santigo de Compostela, a city in the northwest of Spain, to pay tribute to Santiago Apostol's

tomb). The pilgrimage to St. James can be understood as a ritual practice (Schnell & Pali,

2013), as pilgrims involve in behavioral and cognitive patterns associated with rituals such as

having a common goal (euphoric element), experiencing physical pain along the way

(dysphoric element), performing a routine activity together (synchronous element), and

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opaque causal actions (e.g., wearing the shell that serves to identify pilgrims, or the specific

greetings among pilgrims). The factors associated with rituals are: (a) imagistic practices (i.e.,

opaque causal actions), (b) exciting/painful experiences (i.e., high dysphoria and euphoria),

and (c) synchrony movements (e.g., walking together with others pilgrims). In this context,

we expected that these factors, during the peregrination to Santiago, might result in pilgrims

fusing their identity (Study 1, wave 1). Additionally, we considered that once pilgrims fused

their identity, this would be maintained across time through reflection of episodic memories

(Study 2, wave 2).

Study 1

The main aim of the first study was to identify which factors, associated with the

peregrination of the St. James's Way, predict the fusion of the individual's identity with the

pilgrim's identity (group identity). Specifically, we focused on the different elements that are

included in rituals, such opaque causal actions (e.g., wearing identification symbols and

special greetings among pilgrims), excitement (i.e., dysphoria and euphoria), and synchrony

(e.g., walking with other pilgrims) as predictors of identity fusion, while controlling for group

identity. Additionally, we included other variables related to the motivation behind the

peregrination (e.g., religion vs. sport), the route they choose for the peregrination (e.g., the

"French route" is the most common route and is driven more by religious motives than

others, while the "primitive route" is more associated with the realization of a physical effort)

to check how these additional factors influence identity fusion. We expected that St. James's

Way pilgrims would fuse their identities, and this would be motivated by the elements

associated with this peregrination (i.e., opaque causal actions, excitement, and synchrony

movements). By doing this, we would highlight the psychosocial influence of peregrinations

among individual identity (e.g., Hopkins & Reicher, 2017; Khan et al., 2016). Materials and

preregistration for this study can be found online (osf.io/tkrdv).

Method

Participants

Participants were recruited in *Praza do Obradoiro* (Santiago de Compostela), which

is the usual final point of the peregrination for the different routes on St. James's Way.

Sample size was calculated using G-power analysis (Faul, Erdfelder, Buchner, & Lang, 2009)

for a bivariate logistic regression analysis (Odds ratio = 1.5, Pr (H0) = .03, α = .05, 80%

Power; data were based on previous studies; Gómez et al., 2011). Results revealed that a

minimum of 242 participants were required. The sample was composed of a total of 670

participants. Following the inclusion criteria, uniquely native Spanish speakers were

included. This resulted in a sample of 609 participants for the study (278 males, 330 females,

and one unidentified case, M_{age} = 31.18, SD = 9.86). The collected sample was representative

of the population of Spanish pilgrims for the time data were collected (August 2017)

according to the data provided by the official Pilgrim's Office[2]. A detailed description of the

sociodemographic characteristics can be found in the supplemental material.

Procedure and Measures

Pilgrims were approached once they finished the peregrination (when they arrived at

Praza do Obradoiro) and were asked to volunteer for a study about the experiences of St.

James's Way pilgrims. Once they agreed to participate, they were presented with the different

measures used to evaluate the different elements of the peregrination and their effect on their

identity. The selection of questions included on this study were chosen from previous studies

which focused on St. James's Way pilgrims (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 was more concise. For that purpose, we used a hierarchical cluster

analysis via the Wald method to gather the measures of the three theoretical factors of rituals

(opaque causal actions, synchrony, and excitement). Results from this cluster analysis

contributed to confirm the ascription of each individual indicator to the three components of

rituals. Below are all the measures grouped according to the results of the cluster.

Opaque causal actions and synchrony among pilgrims. In order to measure the

extent to which pilgrims participate in the rituals associated with St. James's Way and

synchrony among pilgrims, a number of measures about their experience on the peregrination

were included (see Table 1).

[Insert Table 1]

Excitement. To measure the excitement among pilgrims during the peregrination, the

following measures were included: The Suffering, the Pain Numeric Rating Scale, and the

Positive and Negative Affect Schedule. Suffering during the peregrination was measured by

merging two indicators about the quantity ("Over the course of the Way, how often do you

say that you have suffered [physically, emotionally, or otherwise]," from 1 – "Never" to 7 –

"Frequently") and the severity ("Over the course of the Way, in what degree would you say

that you have suffered [physically, emotionally, or otherwise]," from 1 – "Not at all" to 7 –

"Extremely") of the pain caused by the experience ($\alpha = .844$). Additionally, we included the

Pain Numeric Rating Scale (Jensen & Karoly, 2001). This scale consists of four indicators of

that refer to the degree of pain (e.g., "On a scale of 0 to 10, how would you rate your usual

level of pain during the peregrination"; $\alpha = .785$). Finally, we included the Positive and

Negative Affect Schedule (PANAS, Spanish version: Sandín et al., 1999, English version:

Watson et al., 1998) to assess the emotional state during the peregrination. This scale

included 10 positive (e.g., "enthusiastic," "inspired"; $\alpha = .821$) and 10 negative feelings (e.g.,

"irritable," "ashamed"; $\alpha = .804$) Answers were given on a 5-point Likert-type scale ranging

from 1 (*not at all*) to 5 (*extremely*).

Group identity. The group identity with pilgrims was measured using a single item

with a Likert scale of 7 points ("To what extent do you identify yourself as a pilgrim during

the St. James's Way?") ranging from 1 (*not at all*) to 7 (*completely*).

Identity fusion. A pictorial scale was used to measure the identity fusion (Gómez et al., 2011; Swann, Gómez, Seyle, Morales, & Huici, 2009). The scale consists of five images that represent different degrees of overlap among two circles; one circle represents the personal identity, while the other represents the group identity. Participants were asked to choose the possible combination among the circles from 1 (*completely separated*) to 5 (*completely fused*) that bests represented their relation with pilgrims. Following the authors' recommendations (Gómez et al., 2011), a dummy variable was created from the scores of the scale to distinguish among participants that did not have their identity fused (four possible options were selected, score = 0, $N = 434$), from participants who fused their identity with pilgrims (the last option that represents two completely overlapping circles, score =1, $N =$ 154).

Sociodemographic variables. Participants were asked which possible route they chose to reach Santiago de Compostela (there were six options: French, northern, English, Portuguese, primitive, or another route). In the analysis, we compare the French Way with the others, given that this route is the most common among pilgrims. Additionally, participants where asked about their main motivations behind the peregrination (religious, spiritual, cultural or sportive; more than one answer was possible, and there was a dichotomous answer: yes or no). Demographics questions about sex, age, education (from 1- "Basic Education" to 7- "Master/PhD Level"), and religious orientation (Catholic, Protestant, unbeliever, and other) were also included. Finally, participants were thanked and asked to voluntarily provide a contact e-mail and personal identification code, as they would be contacted for the second part of the study.

Results

Firstly, we calculated the descriptive analysis for the study (see the supplemental material). Secondly, we computed a regression analysis to test our hypothesis. As a first step, we carried out a binary logistics regression with the identity fusion as a dependent variable and all the other variables as independents (Table 2). We decided to control with the group identity to make sure that the influence of the other variables just collapsed in the identity fusion. The results showed that our model was significant ($R^2 = 28$, $\chi^2(35) = 83.463$, $p < .001$) predicting 95.5% of the non-fused identity and 34.4% of the fused people (81% of the total). We found that rituals ($b = .686$, Wald $\chi^2(1) = 5.543$, $p = .019$, OR = 1.968), physical training ($b = -.809$, Wald $\chi^2(1) = 5.341$, $p = .021$, OR = 0.446), suffering ($b = .364$, Wald $\chi^2(1) = 5.481$, $p = .019$, OR = 1.439), the primitive way compared with the French way ($b = 1.199$, Wald $\chi^2(1) = 6.830$, $p = .009$, OR = 3.318), and group identity ($b = .527$, Wald $\chi^2(1) = 16.191$, $p < .001$, OR = 1.693) were the significant predictors; while group ($b = .060$, Wald $\chi^2(1) = 3.261$, $p = .071$, OR = 1.062) and cultural motivation ($b = -.493$, Wald $\chi^2(1) = 2.992$, $p = .084$, OR = .611) presented marginal signification.

[Insert Table 2]

Given the high number of variables, we decided to realize the regression with just the significant and marginal variables of the previous analysis (Table 3). The results showed that our model was significant ($R^2 = .18$, $\chi^2(11) = 72.114$, $p < .001$) predicting 97.1% of the non-fused people and 20.9% of the fused people (78.5% of the total). We found that the best predictors were rituals ($b = .535$, Wald $\chi^2(1) = 5.950$, $p = .015$, OR = 1.709), group ($b = .051$, Wald $\chi^2(1) = 4.582$, $p = .032$, OR = 1.053), cultural motivation ($b = -.430$, Wald $\chi^2(1) = 3.962$, $p = .047$, OR = 0.651), and group identity ($b = .516$, Wald $\chi^2(1) = 28.751$, $p < .001$, OR = 1.676). On the other hand, suffering ($b = .152$, Wald $\chi^2(1) = 3.770$, $p = .052$, OR =

ON THE WAY TO FUSION   14

1.164) and the primitive way compared with the French way (b = .613, Wald $\chi^2(1)$ = 3.118, p

= .077, OR = 1.845) presented marginal signification.

[Insert Table 3]

Discussion

In the present study, we aimed to analyze associated factors of rituals during

peregrination that predict identity fusion among pilgrims. We proposed that pilgrims'

performance of imagistic practices (e.g., opaque causal actions, synchrony, and excitement)

during the way would predict identity fusion. Additionally, we included some contextual

questions such as the path of the peregrination, the religious orientations, and the motivations

to see if they shape personal identity along with the traits associated with rituals. Results

indicated that components of excitement such as the suffering along the way (i.e., physical or

emotional), the participation in the typical rituals of the way (i.e., opaque causal actions), and

the amount of people that walk along with the participants (i.e., synchrony) were the best

predictors of identity fusion. Additionally, not training before the start of the way or choosing

the primitive way (compared to the French way), which crosses a mountainous landscape,

were also predictors of identity fusion. It might be possible that not training or realizing the

hardest way promotes fusion, as they imply higher suffering among pilgrims. Finally, not

having a cultural motivation was also a significant predictor. This might be due to conceiving

of the peregrination simply as a way to visit Spanish cities reducing the psychological

implication with the peregrination and the goals associated with it.

These effects held even when we controlled by group identity, highlighting that

peregrination might not be reduced to simple identification with others but to a deeper

process of merging the personal-self with the group. In conclusion, the present results

highlight that different components of peregrination might trigger the appearance of a

visceral union with other pilgrims while pilgrims are involved in the peregrination. However,

peregrinations are considered to be rituals that are maintained for a period of time, which might be more or less long, but they are usually realized once or uniquely a few times in a person's life. Therefore, it might be possible that identity fusion and its associated consequences (Swann, Jetten, Gómez, Whitehouse, & Bastian, 2012) might decline after the peregrination if pilgrims do not engage regularly in this types of events. In order to analyze the factors that promote the maintenance of identity fusion with pilgrims over time, we conceived of a second study.

Study 2

The aim of this second study was to analyze which factors may keep pilgrims fused after they finish the pilgrimage and therefore do not continue with the realization of this collective ritual. In order to do that, we focused on one factor that might maintain the identify fusion, the *reflection over time* (Whitehouse & Lanman, 2014). In this context, this process of reflection over time refers to the continuous memories that bring to conscience the experience of the peregrination, that is, the reminiscences that make possible the maintenance of the fusion identity after the experience. This continuous remembering of the peregrination might be motivated by many factors such as contact with other pilgrims after the peregrination but also by physical memories such pictures or souvenirs of the peregrination. In the present study, we explored the role of the factors that promote reflection over time on identity fusion by analyzing identity changes among pilgrims who participated in the previous study. Materials and preregistration for this study can be found online (osf.io/tkrdv).

Method

Participants

Pilgrims who participated in the first study were contacted three months after completing the peregrination and asked to participate in a continuation of the first study. The

final sample was made up of 199 (76 males, 123 females, M_{age} = 30.58, SD = 8.28)

participants who answered an online questionnaire (see the supplemental material).

Procedure and measures

Pilgrims were asked to answer a series of questions related to the frequency at which

they thought about the peregrination experience, their contact with other pilgrims, or the

number of memories they kept from the peregrination (Table 4). Finally, participants

answered the same questions as in the first study about their group identity and identity

fusion with pilgrims.

[Insert Table 4]

Results

Firstly, we analyzed changes on identity fusion, comparing scores from the first study

(wave 1) and three months later (wave 2). In order to do that, we created a cross tabulation to

check how many people who were fused in wave 1 were still fused in wave 2 and vice versa

(Table 5). The chi-square proof demonstrated that there was a significant relation between the

identity fusion in the two waves ($\chi^2(1)$ = 26.545, p < .001). In general, the fusion of identity

did not change over time for fused and non-fused participants.

[Insert Table 5]

Secondly, we analyzed the impact of reflection over time on the maintenance of

identity fusion (Table 5). In order to do that, we carried out a hierarchical bivariate logistical

regression with the identity fusion in wave 2 (three months later) as the dependent variable.

In the regression analysis, we included three models. In the first model, we included the

variables that showed the better fit predicting identity fusion in the first study (see Table 6) as

predictors of identity fusion (wave 2). We also included identity fusion and group identity

(wave 1) in the model. Finally, in the last model, we included the measures of reflection that

participants answered in the second study. Results indicated that the first model was

Group Processes and Intergroup Relations

significant (R^2 = .25, $\chi^2(10)$ = 23.553, p = .009) in predicting 96.6% of the non-fused people

and 20% of the fused people (83.2% of the total) in wave 2. We found that rituals (b = 1.105,

Wald $\chi^2(1)$ = 4.986, p = .026, OR = 3.019) and cultural motivation (b = -1.351, Wald $\chi2(1)$ =

6.330, p = .012, OR = 0.259) were significant predictors. The second model was also

significant (R^2 = .33, $\chi^2(2)$ = 7.923, p = .009), predicting 96.6% of the non-fused people and

36% of the fused people (86% of the total) in wave 2. We found that identity fusion in wave 1

was the uniquely significant predictor (b = .587, Wald $\chi^2(1)$ = 4.070, p = .044, OR = 1.798)

of identity fusion in wave 2. Finally, the third model was also significant (R^2 = .66, $\chi^2(6)$ =

40.521, p < .001), predicting 96.6% of the non-fused and 72% of the fused people (92.3% of

the total). In this model, results showed that the inclusion of variables related to reflection

over time made non-significant the effect of variables from the first study (wave 1). In this

case, identity fusion by itself in wave 1 still significantly predicts identity fusion in wave 2 (b

= .869, Wald $\chi^2(1)$ = 4.192, p = .041, OR = 2.386), along with contact with other pilgrims

after completing the peregrination (b = .608, Wald $\chi^2(1)$ = 4.026, p = .045, OR = 1.837) and

group identity in wave 2 (b = 1.566, Wald $\chi^2(1)$ = 13.239, p < .001, OR = 4.788).

[Insert Table 6]

Discussion

In this second study, we analyzed the effect of reflection over time (i.e., remembering

episodic memories after completing the peregrination) as a factor that promotes the

maintenance of identity fusion over time. Results indicated that identity fusion is a process

that continues even when the ritual (i.e., peregrination) is not maintained or people do not

engage regularly in this action. These results indicated that regular repetition of rituals is not

a key factor to maintaining fused identities. On the contrary, results showed that even when

characteristic of rituals seem to be important as potentiality triggers of identity fusion, their

role in the maintenance of this merged identity is less important compared with other factors

more related to bringing the experience of the peregrination into memory. In this regard, the

results also indicated that not all of the factors that facilitate a reflection over time seem to be

predictors of identity fusion. Specifically, keeping memories such as photographic material or

objects related to the peregrination (e.g., a scallop shell) are not predictors of keeping the

fused identity. However, maintaining contact with members of the same group seems to

reinforce, to a higher extent, the maintenance of identity fusion, even when we control for

identity fusion (wave 1) or group identity (waves 1 and 2). In short, these results indicated

that not every possible reflection over time but only the ones that are based on contact with

in-group members are crucial to the maintenance of identity fusion for pilgrims.

General Discussion

Identity fusion has been shown to be a predictor of radical behaviors and sacrifice in

defense of the group (Swann et al., 2012). Even when the interpersonal and intergroup

consequences of merging identity have been clearly identified, less is known about the factors

that trigger its appearance and the factors that maintain it along time. According to

Whitehouse (2018), one of the pathways that favors the appearance of identity fusion is

sharing transformative personal experiences with others, such as being involved in imagistic

practices during rituals (Whitehouse, 2013). In the present research, we focused on analyzing

the specific aspects of collective rituals that might shape personal identity. Specifically, we

focused on a non-violent collective ritual, such a peregrination on the St. James's Way. By

doing this, we were able to study, in the field, the factors (i.e., opaque causal actions,

excitement and synchrony of movements) that, during the peregrination, lead to the

appearance of identity fusion, but we also analyzed the role of factors (i.e., reflection over

time) that help to maintain the identity merge three months after the end of the peregrination.

Results of the studies support our hypothesis about the influence of collective rituals

on identity fusion. In the first place, results indicated that engaging in collective rituals leads

participants to fuse their identity with the pilgrims' identity. Supporting that identity fusion is not exclusive to violent conflicts (Whitehouse, 2013) and also adds some information about the psychological consequences of peregrinations (e.g., Hopkins & Reicher, 2017). In the second place, results for study 1 indicated that different aspects of collective rituals, previously mentioned by Whitehouse (2018), seem to promote identity fusion. Specifically, results indicated that, when performing so-called imagistic practices, some aspects play more important roles than others. The suffering caused by peregrinating as a consequence of not training before, choosing the hardest route, or experiencing physical or emotional distress on the way are factors that trigger identity fusion with other pilgrims. Additionally, not only suffering *per se* but also participating in the rituals during the peregrinations, such as wearing identification symbols (e.g., a scallop shell), the special greeting among pilgrims, or the behaviors such as signalizing the path with stones for others pilgrims, seems to trigger this fused identity. In general, these results highlight that even in a non-violent conflict, the role of negative excitement on the appearance of a fusion of identity seems to be crucial when people engage in rituals, as previous studies have pointed out (Newson et al., 2016; Richert et al., 2005; Xygalatas et al., 2013).

Additionally, study 2 complements the previous findings by highlighting the factors that maintain identity fusion even when the collective rituals end and are not repeated over time. Specifically, results indicated that not all participants stay fused, even when the fusion measure on wave 1 (last day of peregrination) and wave 2 (three months later) were strongly related. Furthermore, the variables that favor the appearance of identity fusion during the peregrination did not influence their maintenance, but the presence of reflection over time seems to be the key variable to keep fusion over time. In line with previous research (Richert et al., 2005; Russell, Gobet, & Whitehouse, 2016) that indicated that reflection predicts fusion, our results indicated that the maintenance of contact with other members of the in-

group seems to be enough to maintain the pilgrims' identities three months after the

peregrination. These results highlight that uniquely, by keeping contact with other in-

groupers, fusion still goes on without the need of repeating collective rituals or re-

experiencing the euphoria associated with this collective situation.

These results have several implications outside the peregrination sphere. Previous

research has suggested that identity fusion is the precursor of radicalization, and breaking up

the contact between in-group members could facilitate defusion (Fredman et al., 2015).

Giving the importance of radical networks in terrorism (Sageman, 2004), the present result

supports the general assumption of preventing contact between radical people to forestall the

making of radical groups. This gives us some notions about how to handle the prison stays of

radical subjects, which constitutes an actual concern for European countries (Bianchi, 2018;

Trujillo, Jordán, Gutiérrez, & González-Cabrera, 2009). However, not everything related with

identity fusion implies negative outcomes. Especially in the context of peregrination, identity

fusion might promotes prosociality between group members, so, according to Whitehouse

(2013), fusion might promote a widespread solidarity among those who fuse their identity.

Even though the results as a whole support our previous hypothesis, some limitations

applied to the present research. Firstly, a more thoughtful approach to define the components

of rituals that Whitehouse (2018) identified is necessary. In the present research, we

measured some indicators that were grouped by a cluster analysis. Future studies should test

the constructs in order to obtain a more reliable measure of the different components of

rituals. Secondly, the present results highlight the factors that trigger and maintain the fused

identity. However, limitations apply to field studies, and it cannot be explained in terms of

causality. Future studies might approach to this issue by implementing an experimental

manipulation of the components of rituals to test the effect on identity fusion. A third and

final concern is the characteristics of pilgrims, even when the present results highlight how

fusion can appear in a nonviolent conflict and provide some information about the

psychology behind peregrinations. Identity fusion theory has focused on analyzing radical

groups, that is, groups who maintain radical narratives that support violence. The pilgrim

population does not maintain these narratives, as they are not a violent group. Therefore, a

specific theoretical approach to explain the dynamic of identity fusion on nonviolent conflicts

might be necessary to deeply understand the process of fusion with this type of population

(Hopkins et al., 2015).

In conclusion, the present research provided some field evidence about the identity

dynamics that occur during peregrinations. According to identity fusion theory, personal

experiences of rituals shape personal identity. Our results indicate that some factor of rituals

such as excitement or the realization of opaque causal actions trigger fusion, while in-group

contact after the peregrination was maintained over time. These results add to the

psychological study of peregrinations and crowds by highlighting that a life-defining

experience can fuse identity.

Notes

[1] St. James's Way, also known as *Camino de Santiago*, is a is a Catholic pilgrimage of

medieval origin whose purpose is to reach the tomb attributed to the apostle Santiago, located

in the crypt of the Cathedral of *Santiago de Compostela* in Galicia (in the northwest of

Spain).

[2] In August 2017, the number of pilgrims who registered with the Pilgrims' Office in

Santiago was 57,680 (34,198 with Spanish nationality). Analysis revealed that a minimum of

380 pilgrims were required to have a representative population

$\left[n = \frac{N * Z^2 * p * q}{d^2 * (N-1) + Z^2 * p * q} = \frac{34,198 * 1.96^2 * 0.5 * 0.5}{0.05^2 * (34,198 - 1) + 1.96^2 * 0.5 * 0.5} \cong 380 \right]$. For additional

information, see https://oficinadelperegrino.com/estadisticas. Last accessed 03/26/2018.

ON THE WAY TO FUSION   22

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On the Way to Fusion

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

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 spend traveling per day.	Numeric
Days	Total of days that the participants spent traveling.	Numeric
Ending	Finish peregrination in Santiago or keep walking (alternative ending point).	Dichotomous (yes or no)
Weight	Kilograms of weight that they charge while walking (backpack).	Numeric
Experience	Number of times they have completed the St. James's Way.	Numeric
Budget	Average money spent per day.	Numeric
Symbology	Participants wore distinctive signs of pilgrims (e.g., the scallop shell).	Dichotomous (yes or no)
Rituals	Participants engage in the traditions (e.g., leave stones to indicate the path).	Dichotomous (yes or no)
Accommodation	Participants stayed in certified shelters (or they stay overnight in private hotels)?	Dichotomous (yes or no)
Synchrony:		
Physical training	Trained physically before they started the Way.	Dichotomous (yes or no)
Spiritual training	Trained spiritually before they started the Way.	Dichotomous (yes or no)
Group	Number of people who traveled with them.	Numeric
People beginning	Number of people who started the Way with the participants.	Numeric
People end	Number of people who ended the Way 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 with other mean such bicycle, horse, etc.).	Dichotomous (yes or no)

1

On the Way to Fusion

2

Table 2. Bivariate logistic regression with the identity fusion as dependent variable, with raw betas, standard deviation, Wald, degrees of freedom, odds ratio and confidence intervals for the odds ratio (Study 1).

Variables	b (SE)	Wald	df	OR	95% CI for OR Lower	Upper
Opaque causal actions:						
Km_day	.008 (.047)	.027	1	1.008	.920	1.104
Km_Santiago	-.002 (.002)	1.000	1	.998	.993	1.002
Hours_day	-.021 (.125)	.030	1	.979	.767	1.249
Days	.015 (.045)	.106	1	1.015	.930	1.108
Ending	-.045 (.527)	.007	1	.956	.340	2.689
Weight	.017 (.036)	.230	1	1.017	.949	1.090
Experience	.085 (.127)	.450	1	1.089	.849	1.396
Budget	-.001 (.012)	.006	1	.999	.976	1.023
Symbology	-.069 (.308)	.051	1	.933	.511	1.705
Rituals	.686* (.291)	5.543	1	1.986	1.122	3.516
Accommodation	.151 (.424)	.126	1	1.162	.506	2.669
Synchrony:						
Physical training	-.809* (.350)	5.341	1	.446	.224	.884
Spiritual training	.326 (.398)	.669	1	1.385	.635	3.023
Group	.060+ (.033)	3.261	1	1.062	.995	1.133
People beginning	-.018 (.014)	1.551	1	.982	.955	1.010
People end	.471 (.456)	1.027	1	1.602	.644	3.984
Relation (partner)		5.210	4			
Relation(family)	.444 (.432)	1.056	1	1.559	.668	3.638
Relation(friends)	-.257 (.364)	.497	1	.774	.379	1.579
Relation(tour)	1.265 (1.222)	1.071	1	3.541	.323	38.817
Relation(other)	.435 (.722)	.363	1	1.545	.375	6.357
Conveyance	.009 (.2.258)	.000	1	1.009	.012	84.262
Excitement:						
Suffering	.364* (.155)	5.481	1	1.439	1.061	1.951
Pain	-.162 (.121)	1.794	1	.850	.670	1.078
Positive feelings	.124 (.277)	.202	1	1.133	.658	1.950
Negative feelings	-.302 (.310)	.951	1	.739	.403	1.357
Sociodemographics:						
Way (French)		7.746	5			
Way(Northern)	.401 (.546)	.539	1	1.494	.512	4.356
Way(English)	.694 (.573)	1.468	1	2.002	.651	6.152
Way(Portuguese)	.463 (.395)	1.372	1	1.589	.732	3.447
Way(Primitive)	1.199** (.459)	6.830	1	3.318	1.350	8.155
Way(Other)	-20.356 (17,478.154)	.000	1	.000	.000	-
Religious motivation	-.273 (.362)	.569	1	.761	.374	1.547
Spiritual motivation	-.031 (.307)	.010	1	.969	.531	1.769
Cultural motivation	-.493+ (.285)	2.992	1	.611	.349	1.068
Sportive motivation	.489 (.318)	2.360	1	1.631	.874	3.044
Identity:						

Group identity	.527*** (.131)	16.191	1	1.693	1.310	2.188
Intercept:						
Constant	-5.829 (3.742)	2.427	1	.003		

Note: b = Raw regression coefficient; sd = Standard deviation; df = Degrees of freedom; OR = Odds ratio. [+] $p < .10$, [*] $p < .05$, [**] $p < .01$, [***] $p < .001$

Table 3. Bivariate logistic regression by step back Wald method with the identity fusion as dependent variable, with raw betas, standard deviation, Wald, degrees of freedom, odds ratio and confidence intervals for the odds ratio (Study 1).

Variables	b (SE)	Wald	df	OR	95% C.I. Lower	Upper
Opaque causal actions:						
Rituals	.536[*] (.220)	5.950	1	1.709	1.111	2.628
Synchrony:						
Physical training	-.329 (.244)	1.824	1	.719	.446	1.160
Group	.051[*] (.024)	4.582	1	1.053	1.004	1.103
Excitement:						
Suffering	.152[+] (.078)	3.770	1	1.164	.999	1.357
Sociodemographic:						
Way (French)		5.417	5			
Way(Northern)	.455 (.403)	1.275	1	1.576	.715	3.473
Way(English)	.554 (.454)	1.490	1	1.741	.715	4.241
Way(Portuguese)	.278 (.273)	1.036	1	1.320	.773	2.255
Way(Primitive)	.613[+] (.347)	3.118	1	1.845	.935	3.642
Way(Other)	-.708 (1.104)	.411	1	.493	.057	4.286
Cultural motivation	-.430[*] (.216)	3.962	1	.651	.426	.993
Identity:						
Group identity	.516[***] (.096)	28.751	1	1.676	1.388	2.024
Intercept:						
Constant	-4.939[***] (.701)	49.710	1	.007		

Note: b = Raw regression coefficient; sd = Standard deviation; df = Degrees of freedom; OR = Odds ratio. [+] $p < .10$, [*] $p < .05$, [**] $p < .01$, [***] $p < .001$

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6   Table 4. Summary of the variables, descriptions and possible answer options included on the Study 2 to measure refection among pilgrims on St.
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8   James's Way.
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Reflection Over Time Variables	Description of the Variable	Answer Options
Last Pilgrimage	Time since the pilgrimage ended	Numeric
Material reminiscence with a symbolic value	Material reminiscences such as souvenirs, photos or other objects with a symbolic value	Dichotomous (yes or no)
Number of souvenirs (N_souvenirs)	Number of physical souvenirs with symbolic values that they keep from the Way.	Numeric
Reminiscence of shared experiences along the way	Feedback of the experiences after the pilgrimage with friends, family or other people	Dichotomous (yes or no)
Number of shared experiences (N_experiences)	Number of people with whom the experience after the pilgrimage was revived	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 they have share on social media their reminiscent.	Numeric
Pilgrims Contact (Contact)	Permanence of contact with other pilgrims after the experience	Numeric

Table 5. Crosstabs with the frequency of fuse and non-fuse participants in wave 1 and 2.

		Wave 1		
		Non-fuse	Fuse	Total
Wave 2	Non-fuse	132 (66.7%)	28 (14.1%)	160 (80.8%)
	Fuse	16 (8.1%)	22 (11.1%)	38 (19.2%)
	Total	148 (74.7%)	50 (25.3%)	198 (100%)

Table 6. Hierarchical bivariate logistic regression with the identity fusion in wave 2 as dependent variable, with raw betas, standard deviation, Wald, degrees of freedom, odds ratio and confidence intervals for the odds ratio (Study 2).

Variable	b (SE)	Wald	df	OR	95% CI for OR Lower	Upper
Model 1						
Opaque causal actions:						
Rituals	1.105* (.495)	4.986	1	3.019	1.145	7.965
Synchrony:						
Physical training	.013 (.522)	.001	1	1.013	.364	2.819
Group	-.021 (.052)	.170	1	.979	.884	1.084
Excitement:						
Suffering	.308 (.188)	2.687	1	1.361	.941	1.968
Sociodemographics:						
Way		2.449	5			
Way (French)	-.697 (1.131)	.380	1	.498	.054	4.571
Way(Northern)	.881 (.793)	1.235	1	2.414	.510	11.420
Way(English)	-.230 (.749)	.094	1	.794	.183	3.451
Way(Portuguese)	.511 (.729)	.490	1	1.666	.399	6.958
Way(Primitive)	-19.263 (22,857.772)	.000	1	.000	.000	.
Cultural motivation	-1.351* (.537)	6.330	1	.259	.090	.742
Intercept:						
Constant	-2.733** (.954)	8.211	1	.065		
Model 2						
Opaque causal actions:						
Rituals	.992+ (.517)	3.680	1	2.696	.979	7.427
Synchrony:						
Physical training	.161 (.559)	.083	1	1.175	.393	3.513
Group	-.033 (.056)	.352	1	.967	.866	1.080
Excitement:						
Suffering	.353+ (.203)	3.016	1	1.423	.956	2.119
Sociodemographics:						
Way (French)		1.850	5			
Way(Northern)	-.717 (1.204)	.354	1	.488	.046	5.173
Way(English)	.903 (.867)	1.085	1	2.467	.451	13.491
Way(Portuguese)	-.219 (.771)	.080	1	.804	.177	3.644
Way(Primitive)	.263 (.776)	.115	1	1.301	.284	5.956
Way(Other)	-18.881 (23,080.821)	.000	1	.000	.000	.
Cultural motivation	-1.072+ (.565)	3.598	1	.342	.113	1.036
Identity:						
Identity fusion (wave 1)	.587* (.291)	4.070	1	1.798	1.017	3.178
Group identity (wave 1)	.296 (.262)	1.277	1	1.345	.804	2.249
Intercept:						
Constant	-4.505* (1.880)	5.745	1	.011		
Model 3						
Opaque causal actions:						

Rituals	1.213 (.793)	2.339	1	3.363	.711	15.912
Synchrony:						
Physical training	-.551 (.891)	.383	1	.576	.100	3.306
Group	-.108 (.087)	1.544	1	.897	.756	1.065
Excitement:						
Suffering	.301 (.281)	1.151	1	1.352	.779	2.344
Sociodemographics:						
Way (French)		4.839	5			
Way(Northern)	-.766 (1.424)	.289	1	.465	.029	7.583
Way(English)	2.361 (1.514)	2.432	1	10.598	.546	205.890
Way(Portuguese)	-.193 (1.159)	.028	1	.824	.085	7.989
Way(Primitive)	-1.563 (1.171)	1.783	1	.209	.021	2.078
Way(Other)	-16.509 (21,183.572)	.000	1	.000	.000	.
Cultural motivation	-1.421+ (.822)	2.989	1	.241	.048	1.209
Identity:						
Identity fusion (wave 1)	.869* (.425)	4.192	1	2.386	1.038	5.484
Group identity (wave 1)	-.364 (.323)	1.264	1	.695	.369	1.310
Group identity (wave 2)	1.566*** (.430)	13.239	1	4.788	2.060	11.130
Reflection						
N_souvenirs	-.030 (.141)	.046	1	.970	.736	1.279
N_experiences	-.031 (.036)	.756	1	.969	.904	1.040
Fr_thoughts	.413 (.734)	.318	1	1.512	.359	6.368
Fr_experiences	-.139 (.450)	.096	1	.870	.360	2.101
Contact	.608* (.303)	4.026	1	1.837	1.014	3.327
Intercept:						
Constant	-10.838** (3.698)	8.591	1	.000		

Note: b = Raw regression coefficient; sd = Standard deviation; df = Degrees of freedom; OR = Odds ratio. $^+ p < .10,$ $^* p < .05,$ $^{**} p < .01,$ $^{***} p < .001$