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Recent advances, misconceptions, untested assumptions, and future research agenda for identity fusion theory

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Abstract

Just a decade ago, two psychologists, Swann, and Gómez, developed a new theoretical framework to explain extreme pro-group behaviors: *identity fusion theory*. *Identity fusion* refers to a visceral feeling of oneness with a group that motivates individuals to do extraordinary self-sacrifices on behalf of the group or each of its members. Since the formulation of the theory, interdisciinary researchers of the five continents have conducted dozens of studies on identity fusion, both in laboratory and field settings. Research has deepened into the causes, consequences, underlying mechanisms, and applications of identity fusion. The development of fusion-based research has been steadfast and very prolific. Hence, the first section of the current manuscript includes an updated overview of this fast growing literature. This increasing interest for the theory has, however, been accompanied by a series of misconceptions and untested research assumptions, which we address in the second and third sections of the paper, concluding with a final section suggesting a future research agenda. Our aim is to help those interested in knowing more about identity fusion or about the causal mechanisms that lead individuals to risk their life and personal well-being for a group discarding common misconceptions as well as formulating more precise and nuanced hypotheses for future research.

1 | INTRODUCTION

Identity fusion was initially conceived as a visceral feeling of oneness with a group that predicts extreme pro-group behavior with great fidelity. Strongly fused individuals experience an extraordinary sense of personal agency and reciprocal strength from group membership. Although identity fusion was originally conceptualized as a particular alignment of an individual with a group, the expansion of the theory has extended this mechanism to the relation that an individual can also develop to another individual, an animal, an object, or an activity. Fusion with any of these entities has implications for the way individuals behave as a result of being fused.

The original idea of *identity fusion* emerged in the aftermath of the 9/11 terrorist attacks in New York, and the Madrid Train Bombings. Two social psychologists, William B. Swann and Ángel Gómez, jointly conceived the concept of *identity fusion* as an attempt to explain why some individuals are willing to display extreme pro-group behaviors. Although the authors formally presented preliminary findings in 2005 and 2007,[1] it was a decade ago when the first empirical publication appeared (Swann, Gómez, Seyle, Morales, & Huici, 2009).

2 | IDENTITY FUSION THEORY BEFORE 2015

After the emergence of the theory, dozens of experiments in the five continents conducted by multidisciplinary teams of researchers have shown that identity fusion is a reliable predictor of willingness to fight, kill, and die for one's group. Research conducted in the first 5-years period after the formulation of the theory was typically focused on two main objectives. The first aim was finding empirical support for the four principles of the theory (Swann, Jetten, Gómez, Whitehouse, & Bastian, 2012): the agentic-personal-self principle (fused individuals display high levels of personal agency that serves the group's agenda), the identity synergy principle (personal and social identity combines synergistically to motivate pro-group behavior), the relational ties principle (appreciation of the unique personal identity of each ingroup member), and irrevocability (once fused, tendency to remain fused). The second goal was disentangling theoretical and empirically fusion from related but different socio-psychological constructs, especially from group identification (Tajfel & Turner, 1979).

These initial attempts to find empirical foundations for the theory as well as to articulate the key overlaps and differences between identity fusion and group identification produced several reviews mainly focused on how the findings supported each of the four principles (Buhrmester & Swann, 2015; Fredman et al., 2015; Gómez & Vázquez, 2015; Swann & Buhrmester, 2015, see Table 1 for a summary).

However, trusting that the theory was relatively well founded, these reviews also motivated researchers to search for answers to new, unexplored theoretical and empirical questions, and to extend the research to field studies with populations of interest to explore extreme behaviors, which marked a turning point on identity fusion research.

The theoretical and empirical contributions after 2015, have grown exponentially. Researchers from several disciplines (e.g., psychology, anthropology, psychobiology, neuroscience, political sciences), and from the five continents, have conducted laboratory and field studies to deepen into the nature, causes, consequences, underlying mechanisms, and applications of identity fusion theory. Nevertheless, as a consequence, this productive development has been accompanied by some misconceptions and untested assumptions. The present manuscript presents an overview of these theoretical and empirical contributions, addresses the main misconceptions and untested research assumptions, and concludes with some suggestions to establish a future research agenda.

TABLE 1 Key main differences and similarities between identity fusion and classic perspective on group identification

	Differences	
	Identity fusion theory	Classic social identity theory
Focus of the theory	Extreme pro-group behavior, enduring commitment, emphasis on intragroup relations	Intergroup relations
Relation between personal and social identities	Highly permeable	Low permeable
Salience of personal and social identities	Independent	Antagonistic
Role of personal identity	Highly influential	Weakly influential
Stability	High (irrevocability)	Low (context-dependency)
Type of ties involved	Relational and collective ties	Collective ties
Perception of ingroup members	Personalized (uniqueness-based)	Depersonalized (prototypical)
Group-related reasoning	Deontological	Utilitarian
Goals	Group and individual-serving	Group-serving
Predictive capacity of extreme behavior	High	Moderate
Scales/questionnaires to be measured	High consensus	Moderate/low consensus
	Similarities	
	Identity fusion theory	Classic social identity theory
Applications of the theory	Intragroup and intergroup processes	
Antecedents/causes	Shared negative experiences (discrimination, suffering, natural disasters)	
Consequences for the self	Cognitive (representation of the self and the group, sensitivity to group-related information) Affective (self-esteem, group-related emotions)	
Consequences for the group	Group commitment, group cohesion, group loyalty, pro-group behavior, etc	

3 | MAIN ADVANCES AND DISCOVERIES SINCE 2015 FOR IDENTITY FUSION THEORY

After 2015 identity fusion research experienced a shift. Believing that principles of the theory were quite supported, academics began to pose new challenges for extending the scope of the theory. At this time, they started to study processes like the development of identity fusion, its temporal stability, the possibilities of defusion, or fusion with entities different from the group to which individuals belong. Additionally, they tested novel hypotheses about the antecedents, consequences, and mechanisms of identity fusion. Moreover, methodological advances were made as well, and investigations were conducted with samples from special populations of interest. In this section, we present a summary of the main advances and discoveries of the last 5 years.

3.1 | Ontogenetic development

Gaviria, Ferreira, Martínez, and Whitehouse (2015) explored the developmental origins of fusion in school children (6–12 years old). Results indicated that children are not able to experience a state of fusion like that found in adults,

due to the lack of development of their personal identity. Because children at this age have not developed an image of themselves as stable, continuous, and as singular individuals, they do not have established the aspects of identity fusion related to the self, as the feelings of personal agency or the belief that the self makes the group strong. Nonetheless, children can feel deeply connected with a group and express willingness to make sacrifices for it. They dubbed the state of connection to the group that children experience as "protofusion."

3.2 | Temporal stability

Vázquez, Gómez, and Swann (2017) examined whether internal historic events (e.g., corruption scandals) threatening the group affect identity fusion. They found that average fusion scores declined after the occurrence of this type of events. However, this decline was restricted to sentiments toward the group category—collective ties, and it did not affect sentiments toward individual group members—relational ties, or willingness to fight and die for the group, indicating that some aspects of identity fusion are more resistant to change than others.

3.3 | Defusion

Although one of the principles of identity fusion is its irrevocability, researchers have striven for reducing fusion with the group and/or its consequences. One of the main interests is the application of techniques that could reduce violent radicalization, at least when it is caused by fusion with the group. To that end, Gómez et al. (2019) conducted a series of experiments to find out if degrading either collective ties (i.e., sentiments toward the group as a whole) or relational ties (i.e., sentiments toward individual group members) lowered identity fusion and pro-group behavior. Results showed that degrading relational as well as collective ties diminished fusion with the group and pro-group actions. On the other hand, although degrading collective ties reduced overall group identification, degrading relational ties only reduced scores on a single component of a multidimensional measure of group identification: ingroup solidarity (Leach et al., 2008).

3.4 | Entities to be fused with

One of the most fundamental innovations of this period is the notion that it is possible to be fused with different types of entities. In addition to the traditional conception of identity fusion, as the relation that an individual develops with a group (the ingroup, but also an outgroup that, e.g., is oppressed, see Kunst et al., 2018), people can fuse *with another individual* as his/her romantic partner (Joo & Park, 2017; Walsh & Neff, 2018), his/her sibling (Vázquez, Gómez, Ordoñana, Swann, & Whitehouse, 2017), or a political leader (Kunst, Dovidio, & Thomsen, 2019). But individuals can also fuse *with an animal* (Buhrmester, Burnham, et al., 2018), *a trademark* (Hawkins, 2019), or *a value or conviction*, as religion (Fredman, Bastian, & Swann, 2017).

The possibility that people can fuse with different entities represents a substantial departure from the original formulation of identity fusion and raises new questions that have not yet been resolved. For instance, the mechanisms that underlie fusion with a group and explain its consequences may be different from the processes involved in fusion with another type of entity. We will address this issue in the future lines of research section of the current manuscript.

3.5 | Antecedents

Research on the causes of fusion has been extraordinarily prolific in this period. Studies have been centered in two causal factors proposed by Swann et al. (2012): shared biology and shared experiences. According to these authors,

identity fusion could have evolved in tribal groups as a mechanism to demarcate local groups of genetically related persons, and to maximize the inclusive fitness—the ability of an individual organism to pass on its genes to the next generation including the shared genes passed on by close relatives—of individuals within these groups through the promotion of self-sacrificial behaviors. From these local groups, fusion could then be projected to extended groups (large groups of genetically unrelated individuals) as a result of perceptions of shared essence. Another mechanism that could explain the emergence of fusion is sharing emotionally intense, transformative experiences with other group members. Concerning shared biology, Vázquez, Gómez, Ordoñana et al. (2017) found that, as compared to dizygotic twins, monozygotic twins were more fused with their sibling. As predicted by Swann et al. (2012), twins' degree of genetical relatedness was positively related to identity fusion. Consistent with this hypothesis, a study conducted with young men of the Mosul area (Iraq) revealed that fusion with family was more prevalent than fusion with close friends, Muslims generally, Sunni Arabs or one's tribe (Atran et al., 2018).

Whitehouse and associates have done an impressive amount of studies dealing with shared experiences as a potential cause of fusion. These studies demonstrate that sharing intense experiences with other ingroup members fosters fusion with the group (Kapitány, Kavanagh, Buhrmester, Newson, & Whitehouse, 2019; Misch, Ferguson, & Dunham, 2018; Newson, Buhrmester, & Whitehouse, 2018), particularly if these experiences are negative, traumatic, or dysphoric (Jong, Whitehouse, Kavanagh, & Lane, 2015; Segal, Jong, & Halberstadt, 2018; Whitehouse et al., 2017). Other studies also found support for the idea that participating in collective gatherings, like folkloric marches and religious celebrations, could increase fusion (e.g., Páez, Rimé, Basabe, Wlodarcsyk, & Zumeta, 2015; Zumeta, Basabe, Wlodarczyk, Bobowik, & Páez, 2016). Finally, recent investigations show that engaging in ritual practices and recalling episodic memories of pilgrim's route contribute to maintain identity fusion (Lobato & Sainz, 2019).

Several researchers have found other potential causes of fusion. Kunst et al. (2018) showed that political struggles (e.g., oppressive occupation of the outgroup) that clash with people's political beliefs might lead to fusion with groups to which individuals do not belong. Carnes and Lickel's (2018) manifest that perceiving that the group shares core moral beliefs or convictions can also cause fusion. Finally, Zmigrod, Rentfrow, and Robbins (2018, 2019) found evidence that cognitive inflexibility and ideological orientations could shape our personal sense of nationalistic identity, bolstering fusion with national groups.

3.6 | Consequences of identity fusion

All of the studies conducted since 2015 confirm that fusion motivates individuals to engage in several kinds of actions to protect or defend the entity with which they are fused, in addition to the traditional outcome measure of willingness to fight and die for the group. What they do seems to be determined by the kind of entity they are fused with as well as by some situational factors (e.g., Fredman et al., 2017; Misch, Ferguson, & Durnham, 2018; Newson, Buhrmester, & Whitehouse, 2016; Vázquez et al., 2017). For instance, people who strongly fuse with an outgroup that is victim of unjust treatment, like the Palestinians or the Kurds, are more willing to participate in extreme forms of protest on behalf of the group (Kunst et al., 2018); whereas people who fuse with an activity related to a brand are more willing to spread negative world-of-mouth, to boycott the brand, and to avoid repurchasing the brand after a market disruption or a brand transgression (Hawkins, 2019). In contexts where the group's essence is threatened, strongly fused persons are especially likely to maximize the ingroup's advantage over the outgroup even at the expense of personal costs (Buhrmester, Newson, Vázquez, Hattori, & Whitehouse, 2018). Other studies show that fusion with a group may engender lifelong loyalty to it (Newson et al., 2016), and that fusion with religion is positively related to the desire of retaliation after a threat to the religious group (Fredman et al., 2017). Importantly, it appears that highly fused persons are not only more willing to self-sacrifice for the group, but also to sacrifice the group and its members for their personal gain (Heger & Gaertner, 2018).

Identity fusion could also have some impact on our moral and socio-political preferences and well-being. For instance, Talaifar and Swann (2018) demonstrated that fusion with the country might break the political divide between liberals and

conservatives with regard to their endorsement of the moral foundations of loyalty/betrayal, authority/subversion, and purity/degradation. Kunst et al. (2019) found that fusion with certain political leaders (i.e., Donald Trump) predicts willingness to endorse and engage in political violence (e.g., persecuting immigrants and political opponents). Recent work by Ashokkumar, Galaif, and Swann (2019), show that after a public transgression of the group, strongly fused individuals strive to protect the group's reputation. And Talaifar et al. (2020), found that students who were strongly fused with their university were more likely to remain in school up to a year later. Alternative studies indicate that one of the positive consequences of being fused with a group could be self-expansion (Besta, Jaśkiewicz, Kosakowska-Berezecka, Lawendowski, & Zawadzka, 2018), and that being fused with the romantic partner could lead to more constructive ways of coping with relationship conflicts and reduced vigilance for relationship threats (Walsh & Neff, 2018).

3.7 | Underlying mechanisms related to identity fusion

Research has also tried to expand the factors that moderate or mediate the effects of fusion. With respect to the moderators, it has been discovered that strongly fused individuals are particularly willing to sacrifice for the group when the essence of the group is threatened (Buhrmester, Newson, et al., 2018). Fused individuals are also more willing to go to the extremes for the group when they feel morally compelled to do so than when they do not experience any feelings of moral obligation (Kunst et al., 2018). In contrast, strongly fused individuals reduce their willingness to fight and die for their group when they learn that other ingroup members would self-sacrifice for it due to their moral principles and emotions toward the group as opposed to a pragmatic calculus about the costs and benefits associated to self-sacrificial behavior (Paredes, Briñol, & Gómez, 2018). Regarding the mediators, a recent research has revealed two additional mechanisms, feelings of self-expansion and group-eficacy beliefs, that operate sequentially (Besta et al., 2018). These studies were conducted during various mass gatherings, including music festivals, a demonstration of bicycle activists and cycling lovers, and a protest of LGBT right supporters. Results showed that, when people participate in crowd gatherings, identity fusion increases feelings of self-expansion resulting in new knowledge and an amplified perspective on reality, which in turn promotes group-efficacy beliefs and, ultimately, pro-group behavior. Research on the mechanisms related to fusion has also examined the processes that amplify the effect of shared experiences on fusion. Several studies point out that shared experiences are especially effective to increase identity fusion when they are attributed to the will of a supernatural agent (Segal et al., 2018) and when they are intense enough to make individuals reflect about their meaning and believe that they have been personally shaped by them (Buhrmester, Newson, et al., 2018; Newson et al., 2016).

3.8 | Neural bases

A series of investigations have used fMRI techniques to examine the neural bases of identity fusion and its correlates. Some authors have found that the level of fusion modulates the differential activation of the ventromedial portions of the prefontal cortex (VMPFC) in response to fair (vs. unfair) money offers received from ingroup (vs. outgroup) members, suggesting that the activation of these portions of the brain may mediate the influence of fusion on our reaction to the behavior of other individuals (Apps, McKay, Azevedo, Whitehouse, & Tsakiris, 2018). Some others have tried to disentangle the neural correlates of the relation between identity fusion, sacred values, the will to fight and violent extremism (Hamid et al., 2019; Pretus et al., 2018, 2019).

3.9 | Methodological advances

Jiménez et al. (2015) developed the Dynamic Identity Fusion Index (DIFI), which is a continuous adaptation of the pictorial item that was used in the seminal paper about identity fusion (Swann et al., 2009). The DIFI combines the

simplicity afforded by a single pictorial item with the precision of a continuous measure, and it can be used off-line and on-line in traditional computers and touch-pad devices. It is particularly useful when researchers want to conceal that they are measuring fusion, or when they work with illiterate populations.

As we have showed, during the last 5 years the development of fusion-based research has been steadfast. Lab research has been systematically complemented with field studies conducted with special samples, like hooligans, twins, college fraternity/sorority members, military veterans, political partisans, martial arts practitioners, fighters against the Islamic State or terrorists (e.g., Gómez et al., 2017; Kapitány et al., 2019; Newson et al., 2016; Whitehouse et al., 2017). There is even a behavioral economic experiment that contrasts the effect of fusion on eight different sociocultural groups ranging from foragers and horticulturalists to fully market-integrated individuals (Purzycki & Lang, 2019). Nonetheless, this increasing interest for the theory has come along with several misconceptions and untested research ideas. We will offer some details about their merits and flaws in the following two sections.

4 | MISCONCEPTIONS ABOUT IDENTITY FUSION

Scholars specialized in the study of radical behavior and group processes have started to pay close attention to identity fusion. Without wishing to belittle their important contributions to the fusion research, we would like to clarify several misconceptions that can be grouped in two general categories: regarding the nature of identity fusion, and regarding its antecedents and consequences.

4.1 | Misconceptions regarding the nature of identity fusion

Here, we describe what we consider are the three most important misconceptions regarding identity fusion theory: its assimilation or subsumption to social identity theory, to communal sharing, or to a personal predisposition.

The most common inaccuracy is to assume that fusion and group identification are one and the same thing. Babinska and Bilewick (2018) presume that being fused with an extended group is identical to being identified with it, and Milla, Putra, and Umam (2019) seem to use both terms indistinctly. Vignoles (2019) suggests that fusion is subsumed within the conceptual sphere of identification, whereas some characteristics that are conventionally considered as the essential qualities of group identification (e.g., collective self-esteem, ingroup homogeneity) are mere correlates of it. Identity fusion, he adds, is a core dimension of group identification and should not be treated as a separate construct. These misconceptions are easily understandable because insofar as fusion and identification refer to the psychological ties that bind individuals to groups, both constructs are intimately related. However, unlike social identity theory (Tajfel & Turner, 1979) which is mainly concerned with intergroup relations and collective ties, identify fusion theory emphasizes the intragroup dynamics that prompt individuals to sacrifice for their ingroup. Strongly fused individuals value the unique characteristics of fellow group members and develop family-like ties to them even when they are not personally acquainted with them (Swann, Gómez et al., 2014). Both fusion and social identity theories recognize the importance of collective ties, but the fusion approach specifically acknowledges the motivational role of the personal self and relational ties in predicting pro-group behavior (see Gómez et al., 2019). Given these differences it is not surprising that fusion and group identification are associated to different variables or differ in regard to their predictive power, as several studies indicate. Bortolini, Newson, Natividade, Vázquez, and Gómez (2018), for instance, measured fusion and identification (in this case with multidimensional and unidimensional scales) with three different groups to compare their effects on pro-group behavior. Their studies found that fusion explained further variance than each of the identification measures. Recently, Gómez et al. (2019) found that undermining relational ties to fellow group members affected fusion, but not identification with the group. These and other results (e.g., Gómez, Morales, Hart, Vázquez, & Swann, 2011; Swann, Gómez, et al., 2014) support that "fusion" and "identification" should be treated separately.

Other authors consider identity fusion as one of the four basic relational modes: communal sharing (Fiske & Rai, 2015; Thomsen & Fiske, 2018). They take as proof of this equivalence some of the similarities that exist between the two constructs, for example, that both presuppose the experience of feelings of oneness with the group, are associated to caring for others, and may lead to "virtuous violence." Beyond these shared aspects that Fiske pertinently points out, there are remarkable differences between identity fusion and communal sharing that impede the matching of both constructs. Whereas in communal sharing relationships individual identities are disregarded and people are treated as equivalent and undifferentiated (Fiske, 1992), strongly fused persons recognize the unique personal identities as well as social identities of fellow group members (Swann et al., 2012). Thus, identity fusion and communal sharing are based on distinct essential mechanisms and the former is more specific than the latter.

A third misconception is the assimilation of identity fusion to a personal disposition, akin to a personality trait, that leads individuals to fuse with groups. In opposition to that, research shows that fusion is the result of intragroup processes (e.g., sharing experiences, Jong et al., 2015; Segal et al., 2018; Whitehouse et al., 2017), that some of it components diminish when the group is threatened by internal events (Gómez et al., 2019; Vázquez et al., 2017), and that it does not correlate with a plethora of personality traits as the categories of personality of the Big Five (Gómez & Vázquez, 2015). Even though the former studies do not entirely preclude that identity fusion may be associated to some personal disposition not studied to date, they point to the idea that it is not a personality trait. We think of it as a stable and long-lasting psychological state, because the relational bonds to other group members that strongly fused people develop lock them into self-perpetuating interpersonal cycles (Swann et al., 2012).

4.2 | Misconceptions regarding the antecedents and consequences of identity fusion

In this subsection, we summarize the four more relevant misconceptions regarding the theory, as considering identity fusion as the unique or most potent predictor of extreme behavior, criticizing the theory based on the interpretations that some have done of the original theory, believing that fused individuals cannot sacrifice for distant groups, or treating fusion as a transitory mechanism.

First, some authors appear to presuppose that identity fusion is the single or the most powerful predictor of self-sacrificial behavior (Whitehouse, 2018). We do not share this point of view since human behavior is complex and motivated by a myriad of factors. In interaction with other variables (e.g., intergroup threat), identity fusion can partly explain many of the sacrifices that individuals make for their groups. However, people do not always sacrifice themselves for their group; sometimes they do it to defend their ideals and sacred values (Gómez et al., 2017). Hence, identity fusion will be especially predictive when self-sacrificial behavior is group-oriented, but other variables can outperform fusion in predicting self-sacrificial behavior if the goal is to protect one's values (Gómez et al., 2017). On the other hand, ideals and values could be causal antecedents of fusion (Carnes & Lickel, 2018; Kunst et al., 2018) or they can interact with fusion to stimulate pro-group behavior as the devoted actor model states (Gómez et al., 2017; Sheikh, Gómez, & Atran, 2016; Vázquez, López-Rodríguez, Martínez, Atran, & Gómez, 2020).

Second, some authors support their criticisms on what some others interpret from identity fusion theory rather than on the empirical findings or the assumptions of the original authors. For example, Olivola (2018) asserts that many extreme forms of self-sacrifice occur without the participation of fusion. Similarly, Kiper and Sosis (2018) say that a theory about extreme self-sacrifice cannot be limited to identity fusion and group threats. We agree with the idea that identity fusion is not the single or most important cause of *any* extreme behavior. The misunderstanding here resides on the Whitehouse's (2018) assumption that extreme forms of self-sacrifice for the group require a radical form of identity fusion with one's group.

Third, Crimston and Hornsey (2018) suggest that identity fusion cannot motivate sacrifices on behalf of distant groups to which individuals do not belong, like animals or disadvantaged outgroups, whereas moral expansiveness can explain them. Recent studies question this idea and demonstrate that identity fusion does stimulate extreme behavior for distant groups too (Buhrmester, Burnham, et al., 2018; Kunst et al., 2018). In particular, Kunst

et al. (2018) found that people can fuse with oppressed outgroups and, in turn, engage in costly solidarity actions. Caring and being morally concerned for the well-being of the group or its members are core components of fusion (Fredman et al., 2015; Swann, Gómez, et al., 2014). Hence, it is quite probable that fused individuals' moral realm is expanded to incorporate the groups with which they are fused.

And fourth, Wiessner (2018) assumes that fusion could be a fleeting state, and that people move in and out of the state of fusion to evaluate the personal risks and benefits associated with self-sacrifice. Contrarily to what Wiessner assumes, the irrevocability principle of fusion theory states that once fused, people will tend to remain fused (Swann et al., 2012), and previous research already showed that some components of fusion are heavily resistant to change (e.g., Vázquez et al., 2017).

5 | UNTESTED ASSUMPTIONS ABOUT IDENTITY FUSION

Some assume that identity fusion is uniquely associated with violence and negative behaviors. Even though lots of studies show that strongly fused individuals are more inclined to engage in violence on behalf of the group than weakly fused individuals (see Whitehouse, 2018), identity fusion can also promote pro-social behavior such as providing various forms of support to the victims of the Boston Marathon bombings (Buhrmester, Fraser, Lanman, Whitehouse, & Swann, 2015), donating funds to ingroup members in need (Gómez, Morales, et al., 2011) and donating time and money to the community after a natural disaster (Segal et al., 2018). Hence, fused individuals are more willing to do *intense sacrifices* for the group, but the specific manifestations (violent or prosocial) of this higher propensity to go to the extremes depend on ideological and contextual factors. Those persons who are fused with peaceful groups and have internalized the moral principle of not harming should not be distinctively inclined toward violence.

Finally, Lankford (2018) believes that fusion only relates to reported willingness to die for the group, but not to real willingness to die for it. It is difficult to address this fair criticism empirically, since we cannot ask individuals who already gave their lives for a group if they were fused. Even if we question individuals who are going to put their lives at risk, there is always place for harboring a reasonable doubt about what they say. However, several investigations suggest that fusion predicts extreme behavior and not only intentions. For instance, a study conducted with Libyan revolutionaries (Whitehouse, McQuinn, Buhrmester, & Swann, 2014) showed that frontline combatants were more likely to be fused with their battalion than those who only provided logistical support and, in turn, were less exposed to death. Also, in a sample of transsexuals, those who were fused with their cross-gender group were more than twice as likely to have undergone irreversible surgical change of their primary sexual characteristics than nonfused participants 2 years after the assessment of fusion (Swann et al., 2015). And in interviews with imprisoned ISIS members and combatants in the frontline against ISIS, Gómez et al. (2017) found that all were fused with their group.

6 | FUTURE LINES OF RESEARCH

As we have seen, our knowledge about identity fusion has steadily increased after Fredman et al.'s (2015) work. However, the more we test the theory, the more avenues are open to continue increasing our knowledge about it. Here, we will summarize some future directions that identity fusion research could follow to make new advances, but also to deal with the misconceptions and untested assumptions that we have described.

Regarding how to reinforce the advance of the theory, we highlight the need to continue exploring the ontogenic development of fusion. Research has showed that children up to 12 experience some kind of protofusion (Gaviria et al., 2015). The first empirical publications in the field (Swann et al., 2009, 2010) included high school participants between 15 and 16 years old. Then, there is a period between 12 and 15 years old that should be scrutinized to understand how individuals move from a feeling of protofusion to fusion. Also, an intercultural comparison of this particular period would be particularly interesting to understand the origin and causes of fusion.

Another issue that should be further explored is the causes of identity fusion. We know so far that sharing intense experiences with other ingroup members fosters fusion with the group, particularly if these experiences are negative, traumatic, or dysphoric. Recent research has showed that positive experiences were also associated with identity fusion and pro-group actions (Kavanagh, Jong, Mckay, & Whitehouse, 2018). On the other hand, taking together research showing that encouraging fused persons to focus on the shared core values of ingroup members increase their endorsement of making extreme sacrifices for such group (Swann, Buhrmester et al., 2014), future research should explore the relative influence of shared experiences, positive and negative, and shared core values on identity fusion and its correlates.

An extremely promising new line of research is to explore the underlying mechanisms involved when indidivuals are fused with an entity different from the group, as another individual, a value, an animal, a brand, etc. Researchers should not assume that the antecedents, consequents, mediators, and moderators are the same that those that have been found in the literature when researchers have focused on being fused with a group. For instance, it is evident that people cannot develop relational ties with things that have not a mind (e.g., a brand, a religion). Consequently, the principle of relational ties, which is essential in fusion theory, does not apply to these entities. Future research should clarify whether there could be differences between fusion with groups and fusion with other entities regarding all these factors.

Considering all the misconceptions about identity fusion, the most persistent over time may be the assumption that fusion is merely super-identification. To disentangle this confusion, defenders of fusion have strived to demonstrate what identity fusion can predict and identification cannot, or to prove that fusion is a better or stronger predictor than identification of some particular phenomena. However, here we endeavor advocates of identity fusion and group identification to follow an alternative strategy, as it is to show those phenomena that can be predicted by identification and not by fusion. Findings in this line would be extremely helpful to distinguish the nature of these two mechanisms.

In the same line, something that would help reinforce identity fusion theory would be to distinguish fusion from other factors that could also predict extreme pro-group behavior. As we have recognized previously, the originators of the theory never assumed that identity fusion is the single or the most powerful predictor of self-sacrificial behavior. Then, other studies should try to disentangle the role played by fusion and other factors (e.g., values, individual differences) in the determination of extreme forms of pro-group behavior. As we mentioned earlier, individuals who are not fused might perform self-sacrificial behavior, and fusion can interact with other factors (e.g., threat, values) to amplify pro-group actions. In fact, there are already several theoretical proposals that integrate fusion with other determinants of extreme behavior such as the devoted actor model (Gómez et al., 2017; Sheikh et al., 2016; Vázquez et al., 2020) and the 3 N model (Bélanger et al., 2019; Kruglanski, Bélanger, & Gunaratna, 2019; Webber & Kruglanski, 2016). These proposals are still in an initial phase of validation, but in the near future they will surely improve our understanding of extremism and radicalization.

Any of these questions constitutes a good starting point for future research. With the present manuscript, we want to help scientists interested in identity fusion to reach a better understanding of the nature of the construct, the most common misunderstandings that gravitate around it, and some of the most pressing questions that still remain unanswered. It is our hope that some of them take the lead of exploring these questions and contribute to the theoretical and practical development of identity fusion theory.[1]

7 | CONCLUSIONS

Unraveling what leads some people to sacrifice for others, or for a cause, has undoubtedly been the focus of interest of social scientists. A decade ago, a fresh theory, identity fusion, proposed that a visceral feeling of oneness with the group could help disentangle why some individuals are willing to fight, kill or die for such group. Despite criticisms, misunderstandings, and untested assumptions, the theory has generated enormous international, multidisciplinary

interest not only for scientists, but also for governments. Here we have considered these appreciations, confusions, and unverified suppositions as a challenge rather than a threat. As a consequence, our responses have tried to generate future lines of research that could reinforce the theory and make it even more ambitious. Only 5 years after the appearance of Fredman et al.'s (2015) work in this same outlet, identity fusion is nowadays a fundamental mechanism for anyone interested in the investigation of violent radicalization and de-radicalization.[2]

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ENDNOTES

[1] William B. Swann and Ángel Gómez presented identity fusion at the Preconference for the Society for Personality and Social Psychology conference celebrated in New Orleans, 2005; the Social Psychology Winther Conference celebrated in Utah, 2005, and the Preconference for The Self and Identity celebrated in Chicago, 2007.

[2] We intended to be as exhaustive as possible in our review of the main advances and discoveries about identity fusion. Although all contributions are valuable, word limitations forced us to exclude some papers from it. We would like to apologize for these omissions.

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