THINKING ON THE EDGE: AN INTERDISCIPLINARY LOOK AT IDEOLOGICAL EXTREMISM

EDITED BY: Jocelyn J. Bélanger, Mark Dechesne and Angel Gomez
PUBLISHED IN: Frontiers in Psychology

frontiers Research Topics

Frontiers eBook Copyright Statement

The copyright in the text of individual articles in this eBook is the property of their respective authors or their respective institutions or funders. The copyright in graphics and images within each article may be subject to copyright of other parties. In both cases this is subject to a license granted to Frontiers.

The compilation of articles constituting this eBook is the property of Frontiers.

Each article within this eBook, and the eBook itself, are published under the most recent version of the Creative Commons CC-BY licence. The version current at the date of publication of this eBook is CC-BY 4.0. If the CC-BY licence is updated, the licence granted by Frontiers is automatically updated to the new version.

When exercising any right under the CC-BY licence, Frontiers must be attributed as the original publisher of the article or eBook, as applicable.

Authors have the responsibility of ensuring that any graphics or other materials which are the property of others may be included in the CC-BY licence, but this should be checked before relying on the CC-BY licence to reproduce those materials. Any copyright notices relating to those materials must be complied with.

Copyright and source acknowledgement notices may not be removed and must be displayed in any copy, derivative work or partial copy which includes the elements in question.

All copyright, and all rights therein, are protected by national and international copyright laws. The above represents a summary only. For further information please read Frontiers' Conditions for Website Use and Copyright Statement, and the applicable CC-BY licence.

ISSN 1664-8714
ISBN 978-2-88971-775-0
DOI 10.3389/978-2-88971-775-0

About Frontiers

Frontiers is more than just an open-access publisher of scholarly articles: it is a pioneering approach to the world of academia, radically improving the way scholarly research is managed. The grand vision of Frontiers is a world where all people have an equal opportunity to seek, share and generate knowledge. Frontiers provides immediate and permanent online open access to all its publications, but this alone is not enough to realize our grand goals.

Frontiers Journal Series

The Frontiers Journal Series is a multi-tier and interdisciplinary set of open-access, online journals, promising a paradigm shift from the current review, selection and dissemination processes in academic publishing. All Frontiers journals are driven by researchers for researchers; therefore, they constitute a service to the scholarly community. At the same time, the Frontiers Journal Series operates on a revolutionary invention, the tiered publishing system, initially addressing specific communities of scholars, and gradually climbing up to broader public understanding, thus serving the interests of the lay society, too.

Dedication to Quality

Each Frontiers article is a landmark of the highest quality, thanks to genuinely collaborative interactions between authors and review editors, who include some of the world's best academicians. Research must be certified by peers before entering a stream of knowledge that may eventually reach the public - and shape society; therefore, Frontiers only applies the most rigorous and unbiased reviews.
Frontiers revolutionizes research publishing by freely delivering the most outstanding research, evaluated with no bias from both the academic and social point of view. By applying the most advanced information technologies, Frontiers is catapulting scholarly publishing into a new generation.

What are Frontiers Research Topics?

Frontiers Research Topics are very popular trademarks of the Frontiers Journals Series: they are collections of at least ten articles, all centered on a particular subject. With their unique mix of varied contributions from Original Research to Review Articles, Frontiers Research Topics unify the most influential researchers, the latest key findings and historical advances in a hot research area! Find out more on how to host your own Frontiers Research Topic or contribute to one as an author by contacting the Frontiers Editorial Office: frontiersin.org/about/contact

THINKING ON THE EDGE: AN INTERDISCIPLINARY LOOK AT IDEOLOGICAL EXTREMISM

Topic Editors:
Jocelyn J. Bélanger, New York University Abu Dhabi, United Arab Emirates
Mark Dechesne, Leiden University, Netherlands
Angel Gomez, National University of Distance Education (UNED), Spain

Citation: Bélanger, J. J., Dechesne, M., Gomez, A., eds. (2021). Thinking on the Edge: An Interdisciplinary Look at Ideological Extremism.
Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88971-775-0

Table of Contents

04 ***Climate of Hate: Similar Correlates of Far Right Electoral Support and Right-Wing Hate Crimes in Germany***
Jonas H. Rees, Yann P. M. Rees, Jens H. Hellmann and Andreas Zick

18 ***A Multidimensional Analysis of Religious Extremism***
Susilo Wibisono, Winnifred R. Louis and Jolanda Jetten

30 ***Radicalization Through the Lens of Situated Affectivity***
Hina Haq, Saad Shaheed and Achim Stephan

42 ***Is the Role of Ideologists Central in Terrorist Networks? A Social Network Analysis of Indonesian Terrorist Groups***
Mirra Noor Milla, Joevarian Hudiyana, Wahyu Cahyono and Hamdi Muluk

53 **Onlife** ***Extremism: Dynamic Integration of Digital and Physical Spaces in Radicalization***
Daniele Valentini, Anna Maria Lorusso and Achim Stephan

68 ***Exploring the Pathways Between Transformative Group Experiences and Identity Fusion***
Christopher M. Kavanagh, Rohan Kapitány, Idhamsyah Eka Putra and Harvey Whitehouse

84 ***Do Counter-Narratives Reduce Support for ISIS? Yes, but Not for Their Target Audience***
Jocelyn J. Bélanger, Claudia F. Nisa, Birga M. Schumpe, Tsion Gurmu, Michael J. Williams and Idhamsyah Eka Putra

95 ***Staying Engaged in Terrorism: Narrative Accounts of Sustaining Participation in Violent Extremism***
Neil Ferguson and James W. McAuley

105 ***Why People Enter and Embrace Violent Groups***
Ángel Gómez, Mercedes Martínez, Francois Alexi Martel, Lucía López-Rodríguez, Alexandra Vázquez, Juana Chinchilla, Borja Paredes, Mal Hettiarachchi, Nafees Hamid and William B. Swann

118 ***Discover Your Inner Strength: A Positive Psychological Approach to Bolster Resilience and Address Radicalization***
Mark Dechesne and Jamal Ahajjaj

frontiers in Psychology

ORIGINAL RESEARCH
published: 18 October 2019
doi: 10.3389/fpsyg.2019.02328

Climate of Hate: Similar Correlates of Far Right Electoral Support and Right-Wing Hate Crimes in Germany

Jonas H. Rees[1,2]*, *Yann P. M. Rees*[1], *Jens H. Hellmann*[3] and *Andreas Zick*[1]

[1] Institute for Interdisciplinary Research on Conflict and Violence, Bielefeld University, Bielefeld, Germany, [2] Department of Social Psychology, Bielefeld University, Bielefeld, Germany, [3] Department of Psychology, Westfälische Wilhelms-Universität Münster, Münster, Germany

Since 2015, far right parties drawing heavily on radical anti-refugee rhetoric gained electoral support in Germany while the number of political hate crimes targeting refugees rose. Both phenomena – far right electoral support and prevalence of right-wing hate crimes – have theoretically and empirically been linked with socio-structural and contextual variables. However, systematic empirical research on these links is scattered and scarce at best. We combine official statistics on political hate crimes targeting refugees in Germany and far right electoral support of the far right party "Alternative für Deutschland" (AfD) in the German national elections 2017 with socio-structural variables (proportion of foreigners and unemployment rate) and survey data collected in a representative survey (N = 1,506) in 2016. We aggregate and combine data for all German municipalities except Berlin which were the level of analysis for the current study. In path analyses, we find socio-structural variables to be unrelated with each other but significantly correlated with both criterion variables in a systematic fashion: proportion of foreigners was negatively while unemployment rate was positively linked with far right electoral support. Right-wing crime was linked positively with unemployment rate across Germany and positively with proportion of foreigners only in East Germany while proportion of foreigners was unrelated to right-wing crime in West Germany. When including survey measures into the model, they were linked with socio-structural variables in the predicted fashion – intergroup contact correlated positively with proportion of foreigners, collective deprivation correlated positively with unemployment rates, and both predicted extreme right-wing attitudes. However, their contribution to the explained variance in outcome variables above and beyond socio-structural variables was neglectable. We argue that both far right-wing electoral support and right-wing hate crime can be conceptualized as behavioral forms of political extremism shaped through socio-structural and contextual factors and discuss implications for preventing political extremism.

Keywords: right-wing extremism, populist parties, intergroup contact, collective deprivation, socio-structural variables

OPEN ACCESS

Edited by:
Angel Gomez,
National University of Distance Education (UNED), Spain

Reviewed by:
Ignacio Lago,
Pompeu Fabra University, Spain
Martin Elff,
Zeppelin University, Germany

Correspondence:
Jonas H. Rees
jonas.rees@uni-bielefeld.de

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *12 June 2019*
Accepted: *30 September 2019*
Published: *18 October 2019*

Citation:
Rees JH, Rees YPM, Hellmann JH and Zick A (2019) Climate of Hate: Similar Correlates of Far Right Electoral Support and Right-Wing Hate Crimes in Germany. Front. Psychol. 10:2328. doi: 10.3389/fpsyg.2019.02328

> *"The one thing [. . .] that is truly ugly is the climate of hate and intimidation, created by a noisy few, which makes the decent majority reluctant to air in public their views on anything controversial."*
>
> *– Edward Abbey*

INTRODUCTION

Much has been written about the recent wave of success for far right, right-wing populist and extreme right-wing parties, figures and movements globally but especially in the Western world. There seems to be agreement that we are witnessing what some scholars have called a "revolt against liberal democracy" (Eatwell and Goodwin, 2018), a "cultural backlash" (Norris and Inglehart, 2019), or – in more technical and less alarming words – growing support for the far right (Golder, 2016). These developments seem to temporally coincide with an increase in hate-crime in countries across the world (see, e.g., Osce Hate Crime Reporting, 2019) and a number of right-wing terrorist attacks that have gained media attention around the world: Attacks in Oslo and Utøya, 2011, Charleston, 2015, and Christchurch, 2019 among others have been directly linked with extreme right-wing ideology. While there is by now a rich literature on far right electoral support, its potential links with right-wing crimes are not well understood. In public discourse and discussions amongst practitioners, there seems to be an implicit assumption that both phenomena – far right electoral support and prevalence of right-wing hate crimes – are related (e.g., Chu, 2018). However, systematic empirical research on such potential links is scattered and scarce at best. In the current paper, we argue that both are not independent phenomena but have similar correlates and are also correlated with each other. We combine official statistics on reported right-wing hate crimes targeting refugees in Germany and far right electoral support in the German national elections 2017 and investigate links with socio-structural variables (proportion of foreigners and unemployment rate) on the one hand and with psychological variables measured in a representative survey (perceived threat, intergroup contact, and extreme right-wing attitudes) on the other hand.[1] We show that both phenomena co-occur geographically, and we do so in the German context where right-wing hate crime has recently peaked while the far right has seen increasing electoral support in the aftermath of the immense refugee in-migration since 2015.

The German Context

In recent years, wars and other conflicts including personal persecution, primarily in the Middle East and Africa have forced millions of individuals to leave their original places of residence. While most refugees temporarily settle in neighboring countries like Lebanon or Turkey, many have also migrated to Western Europe. Almost 1 million refugees have sought asylum in Germany in the year 2015 alone (German Federal Office for Migration and Refugees, 2019). Germany was not only the European country in which most refugees applied for asylum (Eurostat, 2017). It has also been at the center of attention for a number of events during this period, most prominently for its "welcome culture". As one example, German chancellor Angela Merkel famously announced that several thousand refugees would be allowed to cross the border from Hungary to Austria and into Germany in September 2015 (e.g., Hall and Lichfield, 2015). Her public press announcement "Wir schaffen das!" (We can do this) became historical. While solidarity and the willingness to help have generally been high (e.g., Akrap, 2015), Germany also experienced a wave of hostile and violent resistance against refugees (e.g., Benček and Strasheim, 2016). The number of political hate crimes targeting refugees and their homes in Germany rose dramatically and peaked in 2016 with a total of more than 3,000 incidents according to official sources with an unclear number of incidents that remained in the dark field (Federal Government, 2017; ProAsyl, 2017).[2] Such incidents range from propaganda crimes like libel, incitement of the masses and harassment to violent hate crimes like assault, arson and right-wing extremist terrorist attacks.

During the same period, far right parties drawing on radical anti-refugee rhetoric gained electoral support in Germany – most notably the AfD (Alternative für Deutschland, *Alternative for Germany*).

We begin by tracing the rise of this most prominent current far right party in Germany, the AfD, and summarize previous research and historical links between socio-structural variables such as unemployment and far right electoral support. We then briefly review two prominent social-psychological factors – perceived threat and intergroup contact – that can help understand both outcomes that are of interest for the current work. As we shall see, theoretically as well as empirically, far right electoral support and right-wing hate crimes have similar socio-structural as well as psychological correlates that can produce a dangerous climate of hate.

Rise of the AfD

The AfD was founded in 2013. During the first few years after its formation, the party strongly opposed European integration, the European currency "Euro" and especially European assistance programs during the European sovereign-debt crisis (Arzheimer, 2015), such as the *European Stability Mechanism* and the *European Financial Stability Facility*. The party's "Euro-skeptic" positions broadened during the so called "European migration crisis" from 2015 and onward. Since then, a shift in AfD policy has been reliably documented: The party's positions drastically changed from an economic critique of the European Union toward a far right ideological, nationalist and anti-immigration course (e.g., Franz et al., 2018). During this period of change, AfD personnel and party leadership also changed. This shift seems to have facilitated electoral success for the AfD. Since 2015, the

[1] We refer to the far right party family following Golder (2016) where a more elaborate discussion and distinction between radicalism, populism, extremism, and nationalism within the far right can be found.

[2] Officially, there is no hate crime legislation in the German Criminal Code. However, the legal equivalent is called, politisch motivierte Kriminalität rechts" (PMK-r), which is officially defined as crime "against a person based on political attitude, nationality, ethnicity, race, skin color, religion, world view, origin, or physical appearance, disability, sexual orientation or societal status (so called "hate crimes")" (German Ministry of the Interior Building and Community, 2019).

AfD gained more and more electoral support and was able to consolidate as a relevant political force with a breakthrough in 2016: In the Eastern German states of Saxony-Anhalt (24.2%) and Mecklenburg-Vorpommern (20.8%), the AfD had their biggest electoral successes. However, the AfD also had substantial impact in the in 2016 Western German state elections in Rhineland-Palatinate (12.6%), Berlin (14.2%) and Baden-Wurttemberg (15.1%). This trend culminated in a striking 12.6% in the German general elections in September of 2017 (21.8% in the five states of the former *German Democratic Republic*) establishing the AfD as the third most powerful party and opposition leader in the German Parliament, the *Bundestag*. With the AfD in the Bundestag, the party's positions and views have entrenched large parts of German society seemingly independent of financial and societal status (Zick et al., 2016; Bergmann et al., 2017; Franz et al., 2018; Schröder, 2018) and support of AfD positions in the German society increased. Various polls currently have the AfD (13–14%) close to the Social Democrats (12%), making the AfD the third most successful party in Germany as of August 2019 (Wahlrecht.de, 2019). Before discussing psychological factors that should be relevant for the AfD's electoral success as well as right-wing hate crime, we shall now review socio-structural variables that have historically and empirically been linked with far right electoral support.

Unemployment and Far Right Electoral Support

The link between unemployment and far right electoral support is well-established in the literature and has been empirically demonstrated numerous times. In one of the earliest studies, Pratt (1948) analyzed the 1932 German Reichstag Elections and found that unemployed citizens tended to vote for extreme political parties, such as the Nazi-Party (*NSDAP*), but also the Communist-Party (*KPD*). Falter and Zintl (1988) further corroborated these findings arguing that high unemployment rates facilitated the electoral and overall success of the Nazis in Germany in the 1930s. O'Loughlin et al. (1994), however, showed that these findings seem to hold only for the 1932 and 1933 German general elections but not for the 1930 election. The authors stress the importance of "regional and local contexts of the voting decisions" (O'Loughlin et al., 1994, p. 373). In more recent studies, the general assertion that unemployment and far right electoral support are correlated still holds true (e.g., Norris, 2005; Mudde, 2007; Rydgren, 2007). In his work on far right electoral support, Rydgren (2009) investigated the broader concept of social isolation. Among other factors such as lack of social relations, weak family structures and less personal involvement in civil society, he lists unemployment as a key variable for supporting far right parties (Rydgren, 2009). On the basis of a geographically weighted regression (GWR) analysis focusing on the electoral results of the German Neo-Nazi party NPD (Nationaldemokratische Partei Deutschland), Teney (2012) found a connection between far right electoral outcomes and local unemployment rates while also emphasizing the importance of socio-spatial as well as regional variations among municipalities (Teney, 2012). However, there have been some studies showing that high levels of unemployment do not necessarily have a determining impact on far right voting. Based on election studies, far right voting outcome in seven European countries as well as supranational surveys, for example, Arzheimer and Carter (2006) found that higher unemployment rates are linked with less far right voting. Similarly, Oesch (2008) emphasizes that unemployment is no major factor influencing far right voting, but rather matters of identity claiming that "questions of identity are more important than economic questions" (Oesch, 2008, p. 370). It seems then that while unemployment has been linked with far right electoral support numerous times, it does not tell the full story. In social-psychological theorizing there are two prominent constructs that should be of interest for the current research, that is, intergroup contact and perceived threat.

Intergroup Contact

According to intergroup contact theory, which was first developed by Allport (1954), opportunities for random encounters or cross-group friendships (e.g., Pettigrew, 1998) reduce negative attitudes and prejudice toward outgroups. Allport originally assumed that certain "optimal conditions" (i.e., equal status, perception of common goals, institutional support, perception of common humanity) would facilitate the positive effects of intergroup contact (Allport, 1954). In a meta-analysis of more than 500 studies, Pettigrew and Tropp (2006) found empirical support for the theory and showed that optimal contact conditions may yield greater reduction in negative attitudes but might not always be necessary to reduce prejudice. Several adaptations and extensions for Allport's original theory have been suggested (e.g., Wright et al., 1997; Pettigrew, 2009) but there seems to be general agreement that intergroup contact opportunities tend to decrease hostile and negative attitudes toward outgroups in general even in the absence of optimal conditions (but see Barlow et al., 2012).

The proportion of foreigners in a given spatial unit (e.g., municipality) can be considered the most straightforward socio-structural indicator for contact opportunities and varies considerably across Germany (e.g., Wagner et al., 2003, 2006, 2008). For example, the rate of foreigners is still as much as four times lower in Eastern versus Western German federal states (Statistisches Bundesamt, 2018). Such preconditions provide only relatively few opportunities for intergroup contact for Germans in East as compared to West Germany. Contact theory has consequently been widely used as social-psychological theoretical framework explaining higher levels of prejudice (e.g., Decker et al., 2016; Zick et al., 2019) as well as higher rates of xenophobic attacks and hate crimes against foreigners (e.g., Benček and Strasheim, 2016) in East versus West Germany (see also Wagner et al., 2003; Andresen et al., 2018). Furthermore, intergroup contact with specifically refugees is more prevalent in West than in East Germany as revealed in recent large-scale surveys (Ahrens, 2017). Based on intergroup contact theory, one would therefore predict negative links between proportion of foreigners and prejudice as well as far right electoral support (Teney, 2012) and political hate-crime (Benček and Strasheim, 2016). It seems noteworthy that at least this second prediction is

somewhat contradictory to the intuition that for hate-crimes to occur, the target outgroup needs to be present. However, according to intergroup contact theory, hate-crimes should be most frequent in areas with low rates of outgroup individuals, that is, for example, foreigners and refugees. In a nutshell, we thus assumed a negative relationship between number of refugees in a particular German municipality and numbers of hate-crimes against refugees. Other theoretical approach that is relevant for the present study concern perceived threat ostensibly posed by the outgroup and their members and collective deprivation.

Perceived Threat and Collective Deprivation

A major psychological driver of antagonistic intergroup attitudes is the perception that the outgroup threatens the ingroup's status or culture (e.g., Semyonov et al., 2004; but see Wagner et al., 2006). Perceived threat has consequently also been used to explain differences in prejudice levels between East and West Germans (Wagner et al., 2003; Asbrock et al., 2014; also see Semyonov et al., 2004; Wagner et al., 2008).

Interestingly, threat can be closely related to the socio-structural factor discussed above: Higher unemployment rates in Eastern versus Western German federal states may contribute to differences in perceived threat or status. In other words, competition over jobs and economic opportunities might translate into higher perceived threat by outgroups in general. This perception may, in turn, be linked with prejudice and other negative attitudes toward members of ethnic out-groups. Perceived threat does not necessarily coincide with realistic threat. In response to the recent so-called "refugee crisis", concerns about immigration increased twice as much in East as compared to West Germany (Sola, 2018; also see Jacobsen et al., 2017). A concept that might therefore be psychologically more relevant in this context is collective or fraternal deprivation (Runciman, 1966; also see Major, 1994; Pettigrew and Meertens, 1995). In his original conceptualization, Runciman (1966) distinguished fraternal from egoistic deprivation and argued that it is linked with "lateral solidarity" or ingroup identification for social groups that are relatively deprived in some objective way – such as areas with higher unemployment. Even more importantly, collective deprivation also "uniquely generates agitation for or against structural change" (Taylor, 2002, p. 15). It should therefore be particularly relevant when it comes to voting for a party that insistently opposes structural and societal change – such as the AfD.

The Current Study

The aim of the current study was to investigate socio-structural and psychological correlates of far right electoral support and hate crimes in Germany. Due to its administrative organization into 401 municipalities (294 "Landkreise/Kreise" and 107 "kreisfreie Städte"), Germany lends itself to analyses combining data from different sources that are available on this level. We therefore combine socio-structural data that are made available on a regular basis (i.e., unemployment rates and proportion of foreigners per municipality) with other data from official sources (i.e., election results and reported hate crimes targeting refugees and their homes). We also included survey data on intergroup contact, fraternal deprivation, and extreme right-wing attitudes that were collected as part of a representative telephone survey and that could be located on the municipality level.

As a first set of hypotheses, we predicted substantial links between socio-structural factors and both outcome variables. More specifically, based on previous research and theorizing, we expected (Hypothesis 1a) unemployment rate to be positively linked with far right electoral support (e.g., Pratt, 1948; Falter and Zintl, 1988; Jackman and Volpert, 1996; Rydgren, 2009) and (Hypothesis 1b) proportion of foreigners to be negatively linked with right-wing hate crime (e.g., Wagner et al., 2003; Bustikova, 2014; Benček and Strasheim, 2016; Andresen et al., 2018). As the evidence for a link between proportion of foreigners and far right electoral support is mixed (Arzheimer and Carter, 2006; Lubbers et al., 2006; Golder, 2016), we made no predictions regarding this link or the link between unemployment rate and right-wing crime. However, we hypothesized that they should be in the same direction, that is, unemployment rate may be positively linked with right-wing crime and proportion of foreigners negatively with AfD electoral success (Hypothesis 1c).

In a second set of hypotheses, we predicted specific links of socio-structural factors with survey data. As such "cross-level" links are not commonly theorized or researched, we based our hypotheses on a general reading of the literature on intergroup contact (Allport, 1954; Pettigrew, 1998; Pettigrew and Tropp, 2006) and deprivation theory (Runciman, 1966; Major, 1994; Pettigrew and Meertens, 1995) and predicted psychological perceptions to be linked with the corresponding socio-structural parameters in the suitable fashion. More specifically, we expected proportion of foreigners to be linked with intergroup contact (Hypothesis 2a) and unemployment rate with perceptions of fraternal deprivation (Hypothesis 2b). Both should in turn be correlated with extreme right-wing attitudes (Hypothesis 2c) that should be predictive of both outcome variables (Hypothesis 2d).

We made no predictions regarding intercorrelations of socio-structural predictors or outcomes. However, regarding far right electoral support and right-wing crime, we hypothesized that they might be correlated because they are facilitated by similar socio-structural as well as psychological factors.

MATERIALS AND METHODS

In a first step, we combined data from three independent and official sources: socio-structural data for the year 2016 provided by the German office for statistics, 2017 election results available through the Federal Election Commissioner, and 6,354 reports of crimes targeting refugees and their homes filed as "politically motivated crime, right-wing" by the police between 2015 and 2017 that were collected in an overview (Federal Government, 2016, 2017, 2018). In a second step, we added survey data from a representative sample drawn in 2016 into the data set.[3] We shall now briefly describe each of our data sources in turn and how

[3] Some data sources differentiated between East or West Berlin while others did not. We therefore decided, following previous research (e.g., Wagner et al., 2003) not

they were combined before analyzing their interrelations more systematically.

Socio-Structural Data

Official numbers of residents per municipality were available through the German office for statistics along with other information on absolute numbers regarding legal status (unemployed persons and foreigners). We used these numbers to generate unemployment rates for June 2016 (ranging from 1.2 – 14.7%) and foreigners per municipality for 2016 (ranging from 1.96 – 33.91%).

Election Results

Results for the 2017 national elections are available from the Federal Election Commissioner along with total valid votes per municipality. We computed electoral success for the AfD as one dependent variable by dividing valid AfD votes by total valid votes per municipality (ranging from 4.94 – 35.46%).

Right-Wing Hate Crimes

Our second dependent variable was the number of right-wing attacks and crime targeting refugees and their homes reported to police within municipalities in 2017. We compiled an overview of 2.211 such incidents based on police statistics. The numbers of attacks targeting refugees and their homes are published by the federal Government in so called *Antworten der Bundesregierung* (official replies by the Federal Government to requests by parliamentarians and parties). These are special reports filed by the Government answering inquiries officially requested by parliamentary parties or MPs covering various political issues. The statistics on hate crimes targeting refugees and their homes were published quarterly and in a final version by the government in response to members of parliamentary party *Die Linke* (The Left). Crimes reported ranged in severity from right-wing graffiti and dissemination of propaganda to defamation and harassment all the way to assault, bomb attacks, and homicide. The crimes had been categorized by the Government as "politically motivated crime, right-wing" linking them directly to the "refugee subject matter" (Federal Government, 2018). Records included running number, date, location, federal state as well as the most severe reported offense. One sample line reads "268, 19.10.2017, Erftstadt, NW (Federal state of North Rhine-Westphalia), Schwere Brandstiftung §306a StGB (severe case of arson)" (Federal Government, 2018, p. 18).

Two independent coders placed each reported crime within the respective municipality based on where it had been recorded. The index of right-wing crimes reported in 2017 ranged from 0 (e.g., in Bottrop) up to 58 in Chemnitz. As municipalities vary considerably in their numbers of residents and in order to yield similar ranges for this index as for the other indices, we used number of right-wing crimes targeting refugees and their homes reported per 10,000 inhabitants for the analyses to be reported below.

to include Berlin in our analyses. We note, however, that the pattern of results did not change substantially when analyses were re-run including Berlin as a whole.

Survey Data

A representative sample of 2,008 German participants was surveyed in standardized telephone interviews that were conducted by a professional survey institute between June and August 2016. The survey covered measures for cross-group friendships, perceived economic threat, and attitudes toward various political issues including extreme right-wing attitudes that we will focus on in this paper and describe below in more detail (see Zick et al., 2016). To ascertain representativeness of the sample, telephone numbers were randomly generated, and the last-birthday method was used to randomly select participants within households. As 25% of the participants were contacted via mobile phone numbers and we needed to assign data to municipality- (Kreis-) level by city-prefix, we only used data from those $N = 1{,}506$ participants that were contacted by landline.

Both sub-samples differed somewhat in terms of age and gender, with more younger ($M = 46.10$, $SD = 16.93$), $t(1896) = 8.75$, $p < 0.001$, and more male participants (55%), χ^2 ($N = 1917$, $df = 1$) $= 18.68$, $p < 0.001$, in the mobile-only sub-sample than in the landline-only sub-sample. Crucially, however, both samples did not differ in terms of level of education and those measures that were of interest for our analyses.

The resulting landline-only sample was $M = 53.98$ years old ($SD = 16.93$), with slightly more female than male participants (54.4%). Level of education was slightly skewed with 53.6% of the sample holding a university or technical degree, 28% reporting some secondary school-leaving certificate, and 12.8% reporting no degree at all. Monthly household net income was 20.2% "less than 2,000 EUR", 19.9% "more than 2,000 but less than 3,000 EUR", 13.6% "more than 3,000 but less than 4,000 EUR", and 19.8% "4,000 EUR and more".

Perceived Collective Deprivation

Perceived collective deprivation was measured with the item "How would you judge the economic situation of Germans compared with foreigners living here?" and answers ranging from 1 "very good" to 5 "very bad".

Intergroup Contact

Intergroup contact was measured with the item "How many of your friends or close acquaintances have a migration background?" with answers ranging from 1 "none" to 4 "very many".

Extreme Right-Wing Attitudes

Extreme right-wing attitudes were measured using seven items on a scale ranging from 1 "completely false" to 5 "completely true". Items included statements such as "I can understand that some citizens resist forcefully against homes for asylum seekers" and "No one can expect for me to live next to a home for asylum seekers" (Cronbach's alpha = 0.83; see section "**Supplementary Material**" for the full scale).

As the analyses reported in the current study were based on secondary analyses of official sources and on data previously collected in a survey, ethics approval was not required as per applicable institutional and national guidelines and regulations. For the survey data used in our analyses, informed consent

of the participants was implied through survey completion. Participation in the survey was completely voluntary and anonymous and participants were free to withdraw from the survey at any time without incurring any penalties.

RESULTS

Preliminary Analyses

Means, standard deviations, and zero-order correlations are shown in **Table 1** for all socio-structural variables on municipality level and in **Table 2** for all psychological variables on both individual (lower triangle) and municipality level (upper triangle).[4] As can be seen, for the latter, means, standard deviations, and correlational patterns did not differ significantly between individual and municipality level. We used psychological measures aggregated on municipality level for the current analyses to link them with socio-structural variables. On the one hand, it should be kept in mind that measures varied in range due to their different sources. On the other hand, it seems noteworthy that most of them were systematically linked *despite* their different sources even after correcting for skew or using non-parametric test procedures (see Footnote 4). Extreme right-wing attitudes, for example, were significantly and negatively correlated with proportion of foreigners, $r(346) = -0.13$, $p = 0.02$, but positively with far right electoral support, $r(345) = 0.19$, $p < 0.001$, and with right-wing crimes reported in the respective municipalities in the subsequent year, $r(346) = 0.12$, $p = 0.03$. While these correlations are small in magnitude, they were all significant and in the expected direction. Recall that attitudes were measured in an independent telephone survey. These were also correlated with our dependent variables as can be seen from **Table 1**.

Local unemployment rates in June 2016, for example, while unrelated to local proportions of foreigners in the same year, were correlated with both local far right electoral support, $r(397) = 0.25$, $p < 0.001$, and right-wing crimes reported in the respective municipalities 1 year later, $r(398) = 0.40$, $p < 0.001$. As one final correlational result, both dependent variables, far right electoral support and right-wing crimes reported were linked substantially and positively, $r(399) = 0.50$, $p < 0.001$. Spatial distributions of socio-structural and outcome variables are illustrated in **Figure 1**.

Figure 1 not only illustrates socio-structural variations across municipalities – unemployment rates tend to be highest in the East and the Ruhr area and lowest in the South of Germany, proportions of foreigners per municipality fall within the lowest category in almost all Eastern German municipalities. There is also a striking East-West difference regarding both outcome variables: far right electoral support was highest in the Eastern and Southern municipalities and the proportion of right-wing crime seems to be higher in these areas, too. These differences also show empirically with significantly higher unemployment rates ($M_{East} = 0.08$, $SD = 0.02$ vs. $M_{West} = 0.05$, $SD = 0.02$), lower proportions of foreigners ($M_{East} = 0.04$, $SD = 0.02$ vs. $M_{West} = 0.11$, $SD = 0.05$), higher far right electoral support ($M_{East} = 0.22$, $SD = 0.05$ vs. $M_{West} = 0.11$, $SD = 0.03$), and more right-wing crime reported per municipality on average ($M_{East} = 0.75$, $SD = 0.55$ vs. $M_{West} = 0.18$, $SD = 0.20$), $t(399) = 9.26$, $t(322) = 20.56$, $t(87) = 18.94$, and $t(79) = 8.80$, respectively, all $ps < 0.001$.[5] As East-West differences regarding attitudes and behavior toward minority groups in Germany have been demonstrated before (Wagner et al., 2003; Benček and Strasheim, 2016; cf. Czymara and Schmidt-Catran, 2016), and may distort the results of the following analyses, we decided to account for East-West differences where appropriate and feasible.

TABLE 1 | Means, standard deviations, and zero-order correlations for socio-structural data on municipality level.

	M (*SD*)	(2)	(3)	(4)
(1) Unemployment rate	0.06 (0.03)	0.03	0.25***	0.33***
(2) Proportion of foreigners	0.10 (0.05)		−0.41***	−0.29***
(3) AfD electoral support	0.13 (0.05)			0.50***
(4) Right-wing crimes	0.29 (0.37)			

*(1) through (3) are per 100, and (4) per 10,000 inhabitants. ***p < 0.001.*

TABLE 2 | Means, standard deviations, and zero-order correlations for data on individual and municipality level.

	M (*SD*)				
	Individual	Municipality	(1)	(2)	(3)
(1) Collective Deprivation	2.35 (0.90)	2.35 (0.66)		−0.12*	0.42**
(2) Contact	2.17 (0.84)	2.07 (0.59)	−0.06**		−0.25**
(3) Extreme Right-wing Attitudes	2.34 (0.95)	2.39 (0.66)	0.30**	−0.23**	

*Individual level correlations in lower and municipality level correlations in upper triangle. *p < 0.05, **p < 0.01.*

Testing the Proposed Model

The correlational analyses reported above lend some initial support to our proposed model. However, they leave open the issue of shared variance in predicting the outcome variables as well as the question of how much predictive value – if any at all – is added above and beyond harder socio-structural variables through softer variables such as extreme right-wing attitudes measured in a telephone survey. In a first set of analyses, we consequently addressed the issue of shared variance. Crucially, in assuming random error, conventional statistical models do not account for shared variance due to geographical proximity or spatial auto-correlation. We addressed this issue in a second set of analyses using GWR analyses. In a third and final set of analyses,

[4]To correct for positive skew in the data, analyses were re-run using non-parametric tests or bootstrapping analyses where appropriate. As they yielded the same pattern of results that is described here and in the following sections, we report results based on the original data and parametric tests.

[5]The pattern of results remained the same when applying non-parametric Mann–Whitney tests (see section "**Supplementary Material**" for a summary of these results).

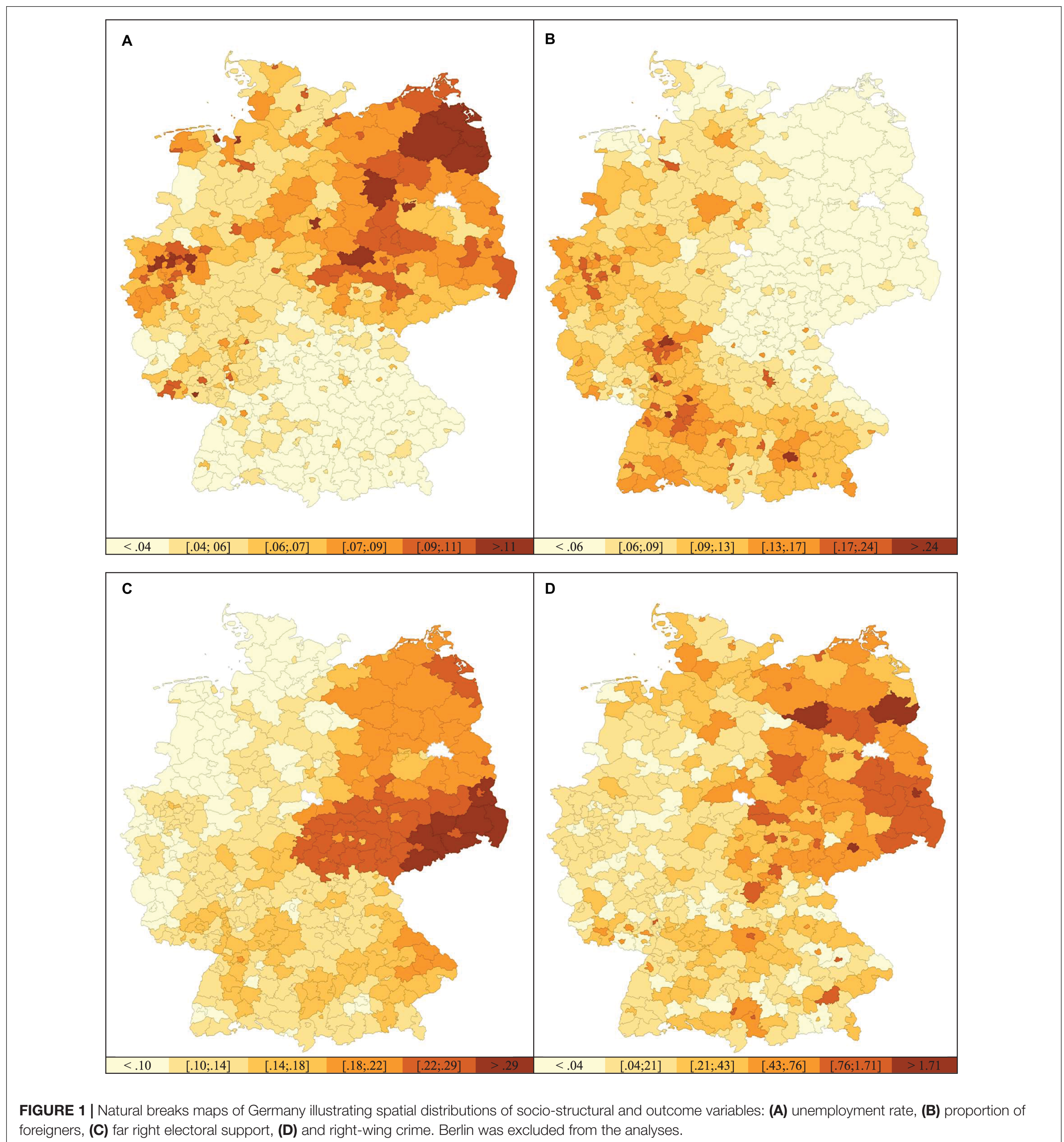

FIGURE 1 | Natural breaks maps of Germany illustrating spatial distributions of socio-structural and outcome variables: **(A)** unemployment rate, **(B)** proportion of foreigners, **(C)** far right electoral support, **(D)** and right-wing crime. Berlin was excluded from the analyses.

we accounted for and explored the differences between East and West Germany reported above.

Controlling for Potential Overlap on Predictor and Criterion Sides

First, we performed path analyses to account for potential overlap both on predictor and criterion sides and to test how much predictive value our psychological survey measures would add. Path analyses were performed using AMOS 24.0 and maximum likelihood estimation. The model was composed in such a way that the socio-structural variables, unemployment rate and proportion of foreigners correlated with far right electoral support and right-wing crime (**Figure 2**). All four paths remained significant and almost unchanged when compared to the zero-order correlations: Proportion of foreigners per municipality on the one hand were negatively linked with both right-wing crimes

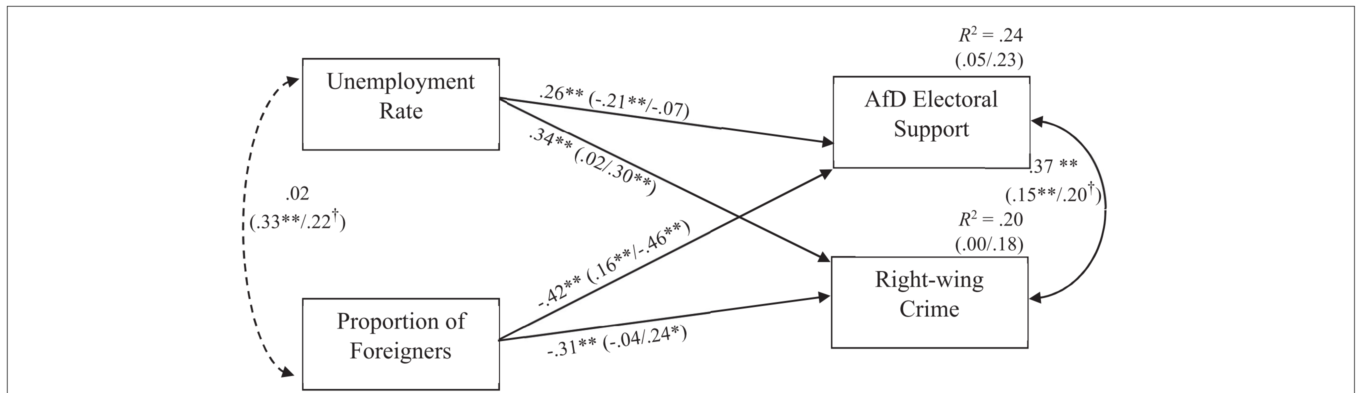

FIGURE 2 | Path model of socio-structural correlates of far right electoral support and political hate crimes in Germany. Standardized path coefficients for overall analyses; West and East Germany separately in brackets (West/East); error terms are not displayed for the sake of clarity. $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.10$.

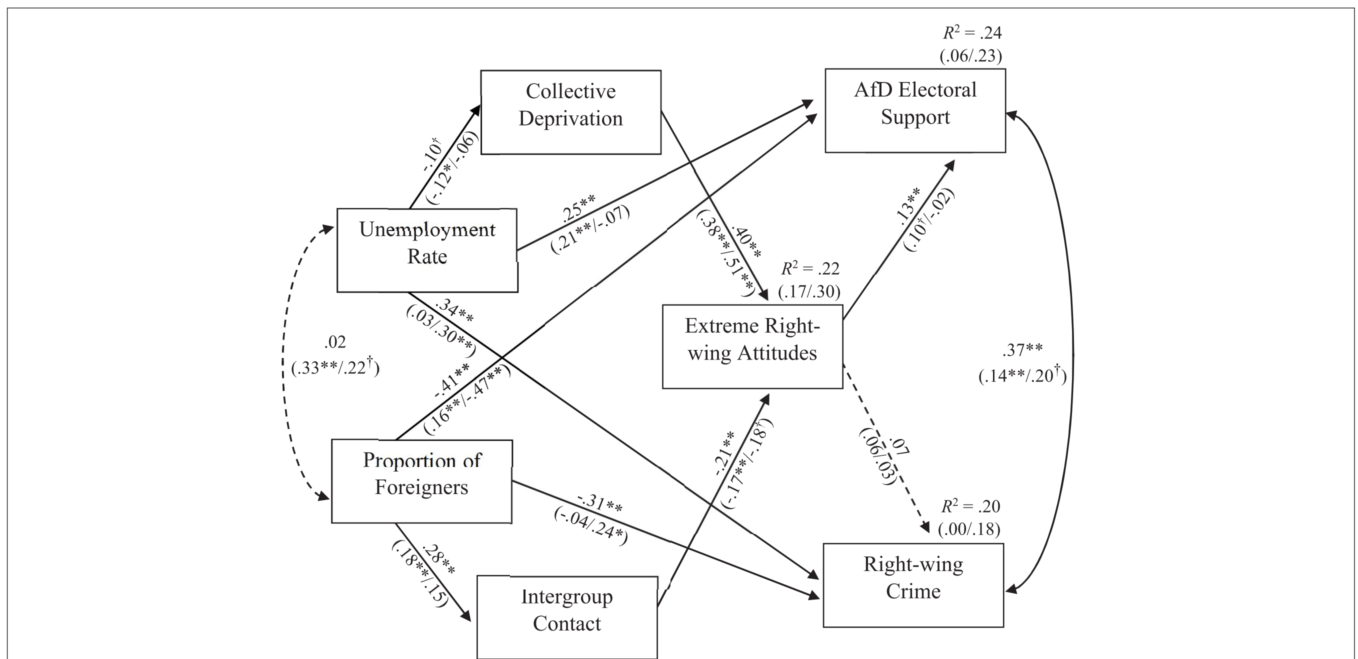

FIGURE 3 | Path model of socio-structural and psychological correlates of right-wing electoral support and political hate crimes in Germany. Standardized path coefficients for overall analyses; West and East Germany separately in brackets (West/East); error terms are not displayed for the sake of clarity. $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.10$.

reported, $\beta = -0.31$, and even more strongly with far right electoral support 1 year later, $\beta = -0.42$. Unemployment rate on the other hand was linked with both AfD electoral success, $\beta = 0.26$, and even more strongly with right-wing crimes reported, $\beta = 0.34$ 1 year later (all *p*s < 0.001). Taken together, both socio-structural predictors explained 20% and 24% of variance in right-wing crimes reported and AfD electoral support, respectively. To correct for skew in the data, we also performed bootstrapping analyses using 5000 bootstrap resamples and bias-corrected 95% confidence intervals (CIs). As none of the resulting CIs included zero, these analyses further supported the model.

We then introduced the three psychological variables, collective deprivation, contact, and extreme right-wing attitudes, into the model (**Figure 3**). A first saturated model included paths between all constructs and, expectedly, fitted the data perfectly. We then computed a second model where a total of eight paths that we had not predicted were set to zero. Specifically, these were paths from socio-structural variables to psychologically incongruent constructs (i.e., paths from proportion of foreigners to collective deprivation and from unemployment rate to contact) and paths that we predicted to be zero because we assumed the psychological contribution to be mediated through extreme right-wing attitudes (i.e., paths from socio-structural variables to extreme right-wing attitudes and paths from contact and collective deprivation to both outcome variables, respectively). As this second model was nested within the previous one, we

compared both and concluded that the second explained the data equally well, $\Delta\chi^2$ (df = 8) = 12.21, p = 0.14. It seems noteworthy that, as predicted, the deleted paths were generally statistically non-significant (ps > 0.10) except for the path from unemployment rate to contact (β = 0.12, p = 0.02). The resulting model is displayed in **Figure 2**. It had a good fit with the data, χ^2 (N = 400, df = 8) = 15.57, p = 0.05, CFI = 0.98, RMSEA = 0.05, PCLOSE = 0.47 (MacCallum et al., 1996; Hu and Bentler, 1999).

The original pattern remained almost unchanged when psychological variables were included into the full model. Extreme right-wing attitudes which had been significantly correlated with both outcome variables only retained a weak but reliable link with far right electoral support, β = 0.13, p = 0.01, but were not significantly linked with right-wing crime reported, β = 0.07, p = 0.16. Explained variance in both dependent variables remained unchanged.[6]

Accounting for Shared Variance Due to Geographical Proximity

As briefly mentioned above, the analyses reported thus far neglect spatial auto-correlation or shared variance due to mere geographical proximity. Such shared variance may be due to common exposure of the observed variables to unobserved confounders and can create problems for conventional statistical models that assume random error (see Fotheringham et al., 2002; Teney, 2012). We performed a series of GWR analyses using spatial error models based on maximum likelihood estimation and queen contiguity weights in GeoDA (Version 1.12; Anselin et al., 2006; GeoDa, 2019) to address the issue of spatial auto-correlation. As can be seen from **Table 3**, results from these analyses replicated the results reported above in showing that unemployment was linked positively with both far right electoral support and right-wing crime while proportion of foreigners was linked negatively with both outcomes. Regarding the survey measures, the GWR analyses confirmed that they had weak but significant links with far right electoral success above and beyond socio-structural variables – the respective model was superior to that without survey measures according to the Akaike Information Criterion (AIC).[7] Survey measures did not contribute significantly to the explained variance in right-wing crime as the outcome variable, however. In fact, that model became significantly worse according to the associated AIC. It seems noteworthy that the Lambda-coefficients were significant across all analyses: there was strong support for spatially correlated errors. Accordingly, the GWR models explained substantially more variance in both far right electoral support (R^2 = 0.83) and right-wing crime (R^2 = 0.38) than conventional regression models.

Exploring East-West Differences

As we had observed considerable differences for all variables of interest, we controlled for and explored the differences between East and West Germany in a third and final set of analyses. While accounting for spatial auto-correlation in GWR analyses and East-West differences through dummy-coding, we also included interaction terms with both socio-structural variables. When predicting far right electoral support, we found a significant interaction of proportion of foreigners and the East-West dummy variable, z = 7.56, p < 0.001. Similarly, when predicting right wing-crime, we found interactions with the East-West dummy variable for both unemployment rate, z = 4.37, p < 0.001, and proportion of foreigners, z = 4.20, p < 0.001.

Following up on these results, we analyzed the data for municipalities in East and West Germany separately. For far right electoral support, both socio-structural factors retained significant links with the outcome: unemployment rate retained links of similar magnitude in the West, b = 0.36, z = 5.01, compared with the East, b = 0.44, z = 2.65, ps < 0.01. Proportion of foreigners, however, was linked much more strongly with the outcome in the East, b = −1.19, z = 7.92, p < 0.001 than in the West, b = −0.10, z = 2.76, p = 0.01.

For right-wing crime, when analyzing East and West German municipalities separately, proportion of foreigners was no longer significantly linked with the outcome in West Germany, z < 1, and unemployment rate still retained a positive but much weaker link, b = 1.02, z = 1.70, p = 0.09. In East Germany, however, both socio-structural factors were still linked with the outcome: unemployment rate, b = 8.20, z = 2.64, as well as proportion of foreigners, b = 8.48, z = 2.77, ps < 0.01, were correlated with right-wing crime significantly and *positively*.

Bootstrap analyses with 5000 resamples and bias-corrected 95% CIs generally replicated these results with some exceptions: CIs for the paths from socio-structural factors to far right electoral support did not include zero with the exception of the path from unemployment rate to far right electoral support. For right-wing crime, only those paths in East Germany were reliable according to these analyses and did not include zero while both paths in West Germany did. In a sense then this pattern of results was similar but more pronounced than that of the GWR analyses.

DISCUSSION

The present study systematically combined data on socio-structural variables (unemployment rates and proportion of foreigners by municipality) with self-reported attitudes and official data on actual behavior (police records on right-wing hate crime and far right electoral support in the German federal elections). In doing so, we tried to approximate what could be referred to as a "climate of hate" – a bundle of objective as well as more subjective or psychological variables all of which contribute to a social norm or a perception of such a norm that

[6]An argument could be made that collective deprivation is not causally prior to extreme right-wing attitudes but that it is in fact part of or even an outcome of extreme right-wing attitudes. We therefore tested alternative models including (a) a reverse path from extreme right-wing attitudes to collective deprivation and (b) a bi-directional path between both constructs. Both models fitted the data descriptively better than the original model that we had hypothesized. It therefore seems worthwhile to note again that we are not testing any causal mechanisms based on the correlational data reported.

[7]As a rule of thumb, an AIC difference of <2 indicates no meaningful discrepancy between models; a difference between 4 and 7 indicates considerable evidence that the model with the lower AIC is better, and a difference of >10 indicates substantial support for the model with the lower AIC (Burnham and Anderson, 2002).

TABLE 3 | Geographically weighted regression (GWR) results for socio-structural correlates of far right electoral support (top panel) and political hate crimes in Germany (bottom panel).

	Coeff.	S.E.	*z*	Coeff.	S.E.	*z*
AfD electoral support						
Constant	0.12	0.01	12.50**	0.14	0.01	12.60**
Lambda	0.86	0.03	33.05**	0.85	0.03	29.88**
Unemployment rate	0.47	0.08	5.76**	0.40	0.09	4.56**
Proportion of foreigners	−0.23	0.04	5.50**	−0.22	0.04	5.02**
Collective deprivation				−0.01	0.001	3.31**
Contact				<0.001	0.002	<1
Extreme right-wing attitudes				0.003	0.002	2.04*
R^2		0.83			0.83	
AIC		−1818.54			−1559.36	
Right-wing Crime						
Constant	0.11	0.06	1.63	0.05	0.12	<1
Lambda	0.59	0.05	11.68**	0.58	0.05	10.96**
Unemployment rate	5.72	0.86	6.62**	5.90	0.94	6.28**
Proportion of foreigners	−1.11	0.44	2.53*	−1.39	0.48	2.93**
Collective deprivation				0.02	0.03	<1
Contact				0.03	0.03	1.01
Extreme right-wing attitudes				−0.01	0.03	<1
R^2		0.38			0.39	
AIC		189.09			172.94	

*$p < 0.05$, **$p < 0.01$.

facilitates hostile behaviors toward outgroups. One central notion of the current work is, consequently, that more conventional but potentially exclusionary behaviors such as far right voting on the one hand and more extreme behaviors such as right-wing hate crimes targeting refugees on the other hand should co-occur because they are facilitated by similar factors.

Correlates of Behavioral Outcomes and Local Variation

While unrelated with each other, both socio-structural factors were linked with both outcome variables in a systematic fashion: First, overall, the local proportion of foreigners was negatively correlated with relative number of hate crimes, and more strongly so with far right electoral support in municipalities. Second, unemployment rate was positively linked with far right electoral support, and more strongly so with relative number of hate crimes reported. When examining these links for East and West German municipalities separately, the pattern remained similar for correlates of far right electoral support. However, the pattern changed drastically for right-wing crime: While unemployment rate was still positively linked with right-wing crime across Germany (but substantially weaker so in Western municipalities), proportion of foreigners was no longer linked with the same outcome in West German municipalities. Contrary to what we had expected, in East German municipalities, this relation even reversed and proportion of foreigners was significantly and positively linked with right-wing crime reported. This pattern of results can be interpreted as an artificial overall negative correlation between proportion of foreigners and reported right-wing crime that can be attributed to the mean differences in measures between East and West Germany. With regard to the two behavioral outcomes, this local variation in their correlates may provide preliminary evidence for related but contrary underlying motives: While one seems to be driven by contact-logic (more contact opportunities, less far right electoral support; e.g., Allport, 1954), the other seems to be more in line with group threat-logic (more foreigners, more right-wing crime; e.g., Teney, 2012). Methodologically, however, this result emphasizes the importance of considering local variation of the phenomena that are being investigated.

Attitudinal variables measured in a representative survey were also linked with socio-structural variables in the predicted direction, that is, intergroup contact correlated positively with local proportion of foreigners, thus replicating a host of previous research (Wagner et al., 2003, 2008; Semyonov et al., 2004). Furthermore, collective deprivation correlated positively with unemployment rates, and both, intergroup contact and collective deprivation predicted extreme right-wing attitudes. However, these predictors' contribution to the explained variance in outcome variables above and beyond socio-structural variables was neglectable. We will address the limitations of the present research in more detail further below after discussing potential implications that can be drawn.

Identifying Areas at Risk for Right-Wing Extremism Through Contextual Indicators

In order to reduce or prevent political extremism, a first step can be to identify and monitor areas that are at particularly high risk of violent hate crimes. So far, monitoring instruments for such hate crimes have been scarce or non-existent

(Benček and Strasheim, 2016; but see ProAsyl, 2017). We argue that high risk areas can still be identified based on contextual factors that are reliable correlates of actual violent extremism and that such correlates can be found in the neighboring research field on far right electoral support. For example, some previous research has predicted incidents of violent right-wing attacks from analyses of public discourse (Koopmans and Olzak, 2004) or from social media data (Müller and Schwarz, 2018). Scholars in the social sciences also seem to agree that there is merit in collecting data on political attitudes including attitudes toward outgroups in order to identify risks or at least shed light on psychological processes that may turn prejudice into violence (e.g., Wagner et al., 2003). All in all, the notion that contextual factors can be useful in identifying high risk areas is not new and two factors – unemployment rate and proportion of foreigners in a given local context – have been particularly well studied (Semyonov et al., 2004; Wagner et al., 2008). In his review of research on far right electoral success, Golder (2016) has systematized these contextual factors into "economic grievances" and "cultural grievances". In discussing the global rise of the far right, some have argued that it is more about culture than economics (e.g., Norris and Inglehart, 2019), others that it is more about economics than culture (Judis, 2018). And even others have argued that such a binary distinction between economic and cultural grievances is "far too simplistic and glosses over the way in which concerns about culture and economics can, and often do, interact" (Eatwell and Goodwin, 2018, p. xxiv). We argue that much can be learned from investigating far right electoral support when studying right-wing hate crime and that both fields can benefit from each other. Based on the current study, we conclude that violent right-wing hate crime is particularly likely in areas with high unemployment rates (as is far right electoral support) and a high proportion of foreigners (contrary to far right electoral support) but that this latter correlate may vary locally.

This finding is somewhat contradictory to intergroup contact theory (Pettigrew, 1998; Wagner et al., 2006) but well in line with the group threat hypothesis and the intuition that, in order for hate crimes to occur, the target outgroup needs to be present. Diversity, while increasing community resilience against far right agitation through contact opportunities (Allport, 1954; Pettigrew and Tropp, 2006) may ironically increase the risk of right-wing crime in the same area.

Finally, far right electoral support was so strongly correlated with relative number of right-wing hate crimes that it might be considered an additional indicator for areas that are at high risk for right-wing extremism. In other words, our results seem to be supportive of the notion that far right electoral support is not only an indicator, but actually part of the social climate of hate that facilitates right-wing violence.

Limitations and Future Research

There are limitations of the current study, some of them due to its overall cross-sectional design or the nature of the data we use. First, we report correlational data that do not allow for causal inferences. While the basic premise of the current work does not necessarily hinge on causal relationships between the constructs but is merely to show that two behavioral outcomes are linked with the same socio-structural correlates and co-occur systematically in certain areas, the variables we used as predictors were all measured 1 year prior to the variables we used as criteria. We would therefore argue that the analyses reported are at least to some extent suggestive of the predictive value of socio-structural and survey data for future outcomes. The distinction between causality and correlation, however, is crucial especially for policy makers and practitioners and future research using longitudinal designs might tackle the issue of causality more convincingly.

Second, from a methodological point of view, the compatibility of our measures especially at the interface of socio-structural and survey data may be open to criticism. More specifically, one could argue that perceived competition on the labor market would be more compatible with local unemployment than perceived collective deprivation. Also, the use of single item-measures is problematic. The weak explanatory performance of attitudinal variables, in other words, may then be due to issues of validity and reliability. However, empirically, we think the measures we used tap into the respective constructs – they do in fact correlate with socio-structural variables in the expected fashion (i.e., proportion of foreigners correlates with contact and unemployment correlates with perceptions of deprivation). While more elaborate data on the psychological level including longer scales would certainly be desirable, such data were not available for the analyses presented in this contribution. Our analysis may thus serve as a proof of principle and hopefully inspire future research to link socio-structural data with survey data and attitudinal as well as actual behavioral outcomes. Such research could also take context into account more systematically by studying specific other European countries experiencing an increase in far right electoral support, such as, Hungary (Palonen, 2009), Italy (Verbeek and Zaslove, 2016), or The Netherlands (Otjes and Louwerse, 2013) or by comparing far right electoral support and the prevalence of hate-crime in countries across Europe (e.g., Lubbers et al., 2002).

Furthermore, future research might benefit from qualitative or mixed-methods approaches, ideally in a longitudinal design to examine regional specifics and developments in those municipalities and areas most affected by a climate of hate. It seems fruitful to investigate those contextual factors qualitatively, social constellations, and regional specifics that facilitate a climate of hate in identified risk areas to draw conclusions on how to strengthen community resilience against extreme right-wing behavior. Methodically, some studies already follow this approach, taking closer looks at intergroup relations on a small-scale level (Bynner, 2017) or at the "normalization" of anti-refugee sentiments in everyday life of a medium sized town (Kurtenbach, 2018).

Conclusion

The results of the current study can be placed within the wider research fields on far right electoral support (e.g., Golder, 2016; Eatwell and Goodwin, 2018) and the prevalence of hate-crime in countries across the world. Understanding both phenomena as partly connected may have important implications for future research, both basic and applied, as well as for politics and practice. Practitioners and policy-makers may find them useful

in developing effective strategies to prevent or at least reduce right-wing extremism by identifying high risk areas. Diverse communities should be more resilient against far right agitation whereas areas with little heterogeneity and high unemployment rates are susceptible for a general climate of hate. A decentralized housing policy for newcomers like refugees may thus decrease far right support but also increase the risk for right-wing crime.

Our final conclusion relates to the added value of survey data in identifying high risk areas. We believe that attitudinal data and surveys will continue to contribute invaluable insights into the processes of prejudice, discrimination, and radicalization. However, our analysis and its results might also serve as a cautionary note: Measures collected in a representative survey were generally linked with socio-structural indicators in the predicted pattern. Self-reported extreme right-wing attitudes were even correlated with actual voting behavior in municipalities 1 year later. While this is good news for attitude research in general and social scientists in particular, the bad news is that the incremental predictive value of these survey data above and beyond socio-structural indicators was neglectable.

DATA AVAILABILITY STATEMENT

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

JR and YR planned the study, collected, compiled the data set, and drafted the manuscript together with JH. JR analyzed the data. AZ provided crucial comments and changes to all parts of the manuscript. All authors approved the submission of the final version of the manuscript.

FUNDING

This research was facilitated by research grants 01UG1858Y "Vorphase zum Aufbau eines Instituts für den gesellschaftlichen Zusammenhalt – Bielefeld" granted by the German Federal Ministry of Education and Research and B13.17-0050/17-BMI granted by the German Federal Ministry of the Interior, Building and Community. We acknowledge the financial support of the German Research Foundation (DFG) and the Open Access Publication Fund of Bielefeld University for the article processing charge.

ACKNOWLEDGMENTS

We wish to thank Franziska Wäschle for her support in coding data for the research reported in this article.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2019.02328/full#supplementary-material

REFERENCES

Ahrens, P.-A. (2017). *Skepsis und Zuversicht. Wie blickt Deutschland auf Flüchtlinge? Hannover: Sozialwissenschaftliches Institut der EKD*. Available at: https://www.siekd.de/wp-content/uploads/2018/06/Skepsis_und_Zuversicht.pdf (accessed June 6, 2019).

Akrap, D. (2015). *Germany's Response to the Refugee crisis is Admirable. But I Fear it Cannot Last*. Available at: https://www.theguardian.com/commentisfree/2015/sep/06/germany-refugee-crisis-syrian (accessed June 11, 2019).

Allport, G. W. (1954). *The Nature of Prejudice*. Reading, MA: Addison Wesley.

Andresen, S., Neumann, S., and Public, K. (2018). *Kinder in Deutschland 2018: 4. World Vision Kinderstudie*. Weinheim: Beltz.

Anselin, L., Syabri, I., and Kho, Y. (2006). GeoDa. An introduction to spatial data analysis. *Geogr. Anal.* 38, 5–22. doi: 10.1111/j.0016-7363.2005.00671.x

Arzheimer, K. (2015). The AfD. Finally a successful right-wing Populist Eurosceptic Party for Germany? *West Eur. Polit.* 38, 535–556. doi: 10.1080/01402382.2015.1004230

Arzheimer, K., and Carter, E. (2006). Political opportunity structures and right-wing extremist party success. *Eur. J. Polit. Res.* 45, 419–443. doi: 10.1111/j.1475-6765.2006.00304.x

Asbrock, F., Lemmer, G., Becker, C., Koller, J., and Wagner, U. (2014). Who are these foreigners anyway?" The content of the term foreigner and its impact on prejudice. *Sage Open* 4, 1–8. doi: 10.1177/2158244014532819

Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. R. M., Harwood, J., et al. (2012). The contact caveat: negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Pers. Soc. Psychol. Bull.* 38, 1629–1643. doi: 10.1177/0146167212457953

Benček, D., and Strasheim, J. (2016). Refugees welcome? A dataset on anti-refugee violence in Germany. *Res. Polit.* 3, 1–11. doi: 10.1177/2053168016679590

Bergmann, K., Diermeier, M., and Niehues, J. (2017). Die AfD. Eine Partei der sich ausgeliefert fühlenden Durchschnittsverdiener? *Z. Parlamentsfragen* 48, 57–75. doi: 10.5771/0340-1758-2017-1-57

Burnham, K. P., and Anderson, D. R. (2002). *Model Selection and Multimodel Inference: A Practical Information-Theoretic Approach*, 2nd Edn. New York, NY: Springer.

Bustikova, L. (2014). Revenge of the radical right. *Comp. Polit. Stud.* 47, 1738–1765. doi: 10.1177/0010414013516069

Bynner, C. (2017). Intergroup relations in a super-diverse neighbourhood: the dynamics of population composition, context and community. *Urban Stud.* 56, 335–351. doi: 10.1177/0042098017740287

Chu, B. (2018). *Normalising Racism in Our Politics Really Does Lead to Hate Crime on Our Streets – Here's How. Independent*. Available online: https://www.independent.co.uk/voices/hate-crime-politics-brexit-eu-referendum-identity-facundo-albornoz-a8549051.html (accessed September 23, 2018).

Czymara, C. S., and Schmidt-Catran, A. W. (2016). Wer ist in Deutschland willkommen? *Kölner Z. Soz. Sozialpsychol.* 68, 193–227. doi: 10.1007/s11577-016-0361-x

Decker, O., Kiess, J., and Brähler, E. (2016). *Die enthemmte Mitte. Autoritäre und rechtsextreme Einstellungen in Deutschland. Die Leipziger Mitte-Studie 2016.* Gießen: Psychosozial-Verlag.

Eatwell, R., and Goodwin, M. (2018). *National Populism: The Revolt Against Liberal Democracy*. London: Pelican Books.

Eurostat (2017). *Asylum Quarterly Report*. Available at: https://ec.europa.eu/eurostat/web/asylum-and-managed-migration/publications (accessed September 27, 2019).

Falter, J. W., and Zintl, R. (1988). The economic crisis of the 1930s and the Nazi vote. *J. Interdiscip. Hist.* 19, 55–85. doi: 10.2307/204223

Federal Government. (2016). *Drucksache 18/7465. Antwort der Bundesregierung auf die Kleine Anfrage der Abgeordneten Ulla Jelpke, Frank Tempel, Jan van Aken, weiterer Abgeordneter und der Fraktion DIE LINKE. Drucksache 18/7304. Proteste gegen und Übergriffe auf Flüchtlingsunterkünfte im vierten Quartal 2015*. Available at: http://dip21.bundestag.de/dip21/btd/18/074/1807465.pdf (accessed April 23, 2016).

Federal Government. (2017). *Drucksache 18/11298. Antwort der Bundesregierung auf die Anfrage der Abgeordneten Ulla Jelpke, Frank Tempel, Jan van Aken, weiterer Abgeordneter und der Fraktion DIE LINKE. Drucksache 18/11085. Proteste gegen und Übergriffe auf Flüchtlingsunterkünfte im vierten Quartal 2016*. Available at: http://dip21.bundestag.de/dip21/btd/18/112/1811298.pdf (accessed September 21, 2018).

Federal Government. (2018). Drucksache 19/889. Antwort der Bundesregierung auf die Anfrage der Abgeordneten Ulla Jelpke, Dr. André Hahn, Gökay Akbulut, weiterer Abgeordneter und der Fraktion DIE LINKE. Drucksache 19/672. Proteste gegen und Übergriffe auf Flüchtlingsunterkünfte im vierten Quartal 2017. Available at: http://dip21.bundestag.de/dip21/btd/19/008/1900889.pdf (accessed October 11, 2019).

Fotheringham, C., Brundson, A. S., and Charlton, M. (2002). Geographically weighted summary statistics — a framework for localised exploratory data analysis. *Comput. Environ. Urban Syst.* 26, 501–524. doi: 10.1016/S0198-9715(01)00009-6

Franz, C., Fratzscher, M., and Kritikos, A. (2018). German right-wing party AfD finds more support in rural areas with aging populations. *DIW Rep.* 8, 70–79.

GeoDa (2019). *GeoDa [Computer Software]*. Available at: http://geodacenter.github.io

German Federal Office for Migration and Refugees (2019). *Aktuelle Zahlen zu Asyl: April 2019*. Available at: http://www.bamf.de/SharedDocs/Anlagen/DE/Downloads/Infothek/Statistik/Asyl/aktuelle-zahlen-zu-asyl-april-2019.pdf?__blob=publicationFile (accessed October 11, 2019).

German Ministry of the Interior Building and Community (2019). *Was ist Politisch Motivierte Kriminalität?* Available at: https://www.bmi.bund.de/SharedDocs/faqs/DE/themen/sicherheit/pmk/pmk.html#f9828060 (accessed October 11, 2019).

Golder, M. (2016). Far right parties in Europe. *Annu. Rev. Polit. Sci.* 19, 477–497. doi: 10.1146/annurev-polisci-042814-012441

Hall, A., and Lichfield, J. (2015). Germany Opens its Gates: Berlin Says all SYRIAN Asylum-Seekers are Welcome to Remain, as Britain is Urged to Make a Similar Statement. Available at: https://www.independent.co.uk/news/world/europe/germany-opens-its-gates-berlin-says-all-syrian-asylum-seekers-are-welcome-to-remain-as-britain-is-10470062.html (accessed August 24, 2015).

Hu, L., and Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct. Equ. Modeling* 6, 1–55. doi: 10.1080/10705519909540118

Jackman, R. W., and Volpert, K. (1996). Conditions favouring parties of the extreme right in Western Europe. *Br. J. Polit. Sci.* 26, 501–521. doi: 10.1017/s0007123400007584

Jacobsen, J., Eisnecker, P., and Schupp, J. (2017). Rund ein Drittel der Menschen in Deutschland spendete 2016 für Geflüchtete, zehn Prozent halfen vor Ort - immer mehr äußern aber auch Sorgen. *Wochenber. Dtsch. Inst. Wirtschaftsforsch.* 17, 347–358.

Judis, J. B. (2018). *It's the Economies, Stupid. The Washington Post Magazine*. Available at: https://www.washingtonpost.com/news/magazine/wp/2018/11/29/feature/the-key-to-understanding-americas-red-blue-split-isnt-ideology-or-culture-its-economics/

Koopmans, R., and Olzak, S. (2004). Discursive Opportunities and the Evolution of Right-Wing Violence in Germany. *Am. J. Sociol.* 110, 198–230. doi: 10.1086/386271

Kurtenbach, S. (2018). *Ausgrenzung Geflüchteter. Eine empirische Untersuchung am Beispiel Bautzen*. Wiesbaden: Springer.

Lubbers, M., Coenders, M., and Scheepers, P. (2006). Objections to asylum seeker centres: individual and contextual determinants of resistance to small and large centres in the Netherlands. *Eur. Sociol. Rev.* 22, 243–257. doi: 10.1093/esr/jci055

Lubbers, M., Gijsberts, M., and Scheepers, P. (2002). Extreme right-wing voting in Western Europe. *Eur. J. Polit. Res.* 41, 345–378. doi: 10.1111/1475-6765.00015

MacCallum, R. C., Browne, M. W., and Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychol. Methods* 1, 130–149. doi: 10.1037//1082-989x.1.2.130

Major, B. (1994). "From social inequality to personal entitlement: the role of social comparisons, legitimacy appraisals, and group membership," in *Advances in Experimental Psychology*, ed. M. P. Zanna (San Diego, CA: Academic Press), 293–355. doi: 10.1016/s0065-2601(08)60156-2

Mudde, C. (2007). *Populist Radical Right Parties in Europe*. Cambridge: Cambridge University Press.

Müller, K., and Schwarz, C. (2018). *Fanning the Flames of Hate: Social Media and Hate Crime*. Available at: https://ssrn.com/abstract=3082972 (accessed November 30, 2018).

Norris, P. (2005). *Radical Right: Parties and Electoral Competition*. Cambridge: Cambridge University Press.

Norris, P., and Inglehart, R. (2019). *Cultural Backlash: Trump, Brexit, and Authoritarian Populism*. Cambridge: Cambridge University Press.

Oesch, D. (2008). Explaining workers' support for right-wing populist parties in Western Europe: evidence from Austria, Belgium, France, Norway, and Switzerland. *Int. Polit. Sci. Rev.* 29, 349–373. doi: 10.1177/0192512107088390

O'Loughlin, J., Flint, C., and Anselin, L. (1994). The geography of the Nazi vote: context, confession, and class in the Reichstag Election of 1930. *Ann. Assoc. Am. Geogr.* 84, 351–380. doi: 10.1111/j.1467-8306.1994.tb01865.x

Osce Hate Crime Reporting (2019). *2017 Hate Crime Data*. Available online: http://hatecrime.osce.org/what-do-we-know (accessed October 11, 2019).

Otjes, S., and Louwerse, T. (2013). Populists in parliament: comparing left-wing and right-wing populism in the Netherlands. *Polit. Stud.* 63, 60–79. doi: 10.1111/1467-9248.12089

Palonen, E. (2009). Political polarisation and populism in contemporary Hungary. *Parliam. Aff.* 62, 318–334. doi: 10.1093/pa/gsn048

Pettigrew, T. F. (1998). Intergroup contact theory. *Annu. Rev. Psychol.* 49, 65–85. doi: 10.1146/annurev.psych.49.1.65

Pettigrew, T. F. (2009). Secondary transfer effect of contact. Do intergroup contact effects spread to noncontacted outgroups? *Soc. Psychol.* 40, 55–65. doi: 10.1027/1864-9335.40.2.55

Pettigrew, T. F., and Meertens, R. W. (1995). Subtle and blatant prejudice in Western Europe. *Eur. J. Soc. Psychol.* 25, 57–75. doi: 10.1002/ejsp.2420250106

Pettigrew, T. F., and Tropp, L. (2006). A meta-analytic test of intergroup contact theory. *J. Pers. Soc. Psychol.* 90, 751–783. doi: 10.1037/0022-3514.90.5.751

Pratt, S. A. (1948). *The social bases of Nazism and Communism in urban Germany. A correlation study of the July 31, 1932 Reichstag Election in Germany*. East Lansing, MI: Michigan State Universitym. M.A.thesis.

ProAsyl (2017). *Gewalt gegen Flüchtlinge 2017: Von Entwarnung kann keine Rede sein*. Available online: https://www.proasyl.de/news/gewalt-gegen-fluechtlinge-2017-von-entwarnung-kann-keine-rede-sein/ (accessed October 11, 2019).

Runciman, W. G. (1966). *Relative deprivation and social justice: A study of attitudes to social inequality in twentieth-century England*. Berkeley: University of California Press.

Rydgren, J. (2007). The sociology of the radical right. *Annu. Rev. Sociol.* 33, 241–262. doi: 10.1146/annurev.soc.33.040406.131752

Rydgren, J. (2009). Social isolation? Social capital and radical right-wing voting in Western Europe. *J. Civ. Soc.* 5, 129–150. doi: 10.1080/17448680903154915

Schröder, M. (2018). *AfD-Unterstützer sind nicht abgehängt, sondern ausländerfeindlich. SOEP Papers on Multidisciplinary Panel Data Research, 975*. Berlin: Deutsches Institut für Wirtschaftsforschung.

Semyonov, M., Raijman, R., Yom Tov, A., and Schmidt, P. (2004). Population size, perceived threat, and exclusion: a multiple-indicators analysis of attitudes

toward foreigners in Germany. *Soc. Sci. Res.* 33, 681–701. doi: 10.1016/j.ssresearch.2003.11.003

Sola, A. (2018). *The 2015 refugee crisis in Germany: Concerns about immigration and populism, SOEPpapers on Multidisciplinary Panel Data Research, 966*. Berlin: Eutsches Institut für Wirtschaftsforschung.

Statistisches Bundesamt (2018). *Zahl der Ausländer in den Bundesländern laut Ausländerzentralregister (AZR) im Jahr 2018*. Berlin: Statista.

Taylor, M. C. (2002). "Fraternal deprivation, collective threat, and racial resentment. Perspective on White racism," in *Relative Deprivation. Specification, Development, and Integration*, eds I. Walker, and H. J. Smith (Cambridge: Cambridge University Press), 13–43. doi: 10.1017/cbo9780511527753.002

Teney, C. (2012). Space matters. The group threat hypothesis revisited with geographically weighted regression. The case of the NPD 2009 electoral success. *Z. Soziol.* 41, 207–226. doi: 10.1515/zfsoz-2012-0304

Verbeek, B., and Zaslove, A. (2016). Italy: a case of mutating populism? *Democratization* 23, 304–323. doi: 10.1080/13510347.2015.1076213

Wagner, U., Christ, O., and Pettigrew, T. F. (2008). Prejudice and group-related behavior in Germany. *J. Soc. Issues* 64, 403–416. doi: 10.1111/j.1540-4560.2008.00568.x

Wagner, U., Christ, O., Pettigrew, T. F., Stellmacher, J., and Wolf, C. (2006). Prejudice and minority proportion: contact instead of threat effects. *Soc. Psychol. Q.* 69, 380–390. doi: 10.1177/019027250606900406

Wagner, U., van Dick, R., Pettigrew, T. F., and Christ, O. (2003). Ethnic prejudice in East and West Germany: the explanatory power of intergroup contact. *Group Processes Intergroup Relat.* 6, 22–36. doi: 10.1177/1368430203006001010

Wahlrecht.de (2019). *Sonntagsfrage Bundestagswahl*. Available at: https://www.wahlrecht.de/umfragen/ (accessed October 11, 2019).

Wright, S. C., Aron, A., Mcloughlin-Volpe, T., and Ropp, S. A. (1997). The extended contact effect: knowledge of cross-group friendships and prejudice. *J. Pers. Soc. Psychol.* 73, 73–90. doi: 10.1037//0022-3514.73.1.73

Zick, A., Küpper, B., and Berghahn, W. (2019). *Verlorene Mitte. Feindselige Zustände. Rechtsextreme Einstellungen in Deutschland 2019*. Bonn: J.H.W. Dietz.

Zick, A., Küpper, B., and Krause, D. (2016). *Gespaltene Mitte. Feindselige Zustände. Rechtsextreme Einstellungen in Deutschland 2016*. Bonn: J.H.W. Dietz.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 Rees, Rees, Hellmann and Zick. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

CONCEPTUAL ANALYSIS
published: 18 November 2019
doi: 10.3389/fpsyg.2019.02560

A Multidimensional Analysis of Religious Extremism

Susilo Wibisono[1,2]*, *Winnifred R. Louis*[1] *and Jolanda Jetten*[1]

[1]*School of Psychology, The University of Queensland, Brisbane, QLD, Australia,* [2]*Department of Psychology, Universitas Islam Indonesia, Yogyakarta, Indonesia*

Even though religious extremism is currently a hotly debated topic, it is often reduced to a unidimensional construct that is linked to religious violence. We argue that the contemporary use of the term "extreme" fails to capture the different interpretations, beliefs, and attitudes defining extreme religious identity. To address this issue, we unpack the meaning of the term "extreme" in religious contexts and answer the call by scholars to provide a more comprehensive framework that incorporates the many different dimensions that constitute religion. We develop a model of religious extremism in theological, ritual, social, and political dimensions of religion based on the variety of Islamic groups in Indonesia. Going beyond an analysis that equates Muslim extremism with violence, we argue that Muslims (or indeed any religious group) may be extreme in some dimensions but moderate in others, e.g., extreme in ritual and moderate in political. Interpreting extremism relative to these four dimensions provides new insights when examining the global issue of religious extremism and helps to better predict how religious extremism is expressed. More generally, our framework helps to develop an understanding of radicalism that goes beyond a focus on violence.

Keywords: radical religion, religion, extremism, religious identity, social identity

OPEN ACCESS

Edited by:
Jocelyn J. Bélanger,
New York University Abu Dhabi,
United Arab Emirates

Reviewed by:
Boaz Hameiri,
University of Pennsylvania,
United States
Leonardo Carlucci,
Università degli Studi G. d'Annunzio
Chieti e Pescara, Italy

Correspondence:
Susilo Wibisono
s.wibisono@uq.net.au

Specialty section:
This article was submitted to
Personality and Social Psychology,
a section of the journal
Frontiers in Psychology

Received: *22 May 2019*
Accepted: *29 October 2019*
Published: *18 November 2019*

Citation:
Wibisono S, Louis WR and Jetten J
(2019) A Multidimensional Analysis
of Religious Extremism.
Front. Psychol. 10:2560.
doi: 10.3389/fpsyg.2019.02560

INTRODUCTION

Recently, we witnessed a surge in psychological research examining the role of religion in human life (e.g., Ysseldyk et al., 2010; Coyle and Lyons, 2011; Brambilla et al., 2016). This rise in interest can probably be explained by recent concerns in the Western world about the social and political implications of the surge of "bad religion" (Basedau et al., 2016). As a result, there has been an intense debate concerning the social risk vs. value of religion and its role within the state (Coyle and Lyons, 2011). Yet, we would argue that the notions of "good" vs. "bad" religions, or even unidimensional and dichotomous categorizations of religiosity as moderate vs. extreme, do not do justice to the issues and lead to simplistic understandings whereby religious extremism is often only seen as a root cause of violence and terrorism.

Such notions and categorizations matter: religious group members are extremely diverse, whereby religion (or even religious extremism) is expressed in very different ways. Problematic too is that such simplistic representations are consequential in that they determine the perception of extremist groups. For example, following 9/11, almost 70% of the U.S. security policies targeted Arabs and Muslims as they were seen to be associated with the adherents of extremist movement (Cainkar, 2009). It appears then that the term religious extremism engenders negative stereotypes

toward particular groups of religious people among the public and policy-makers. This occurs despite frequent warnings that popular (or journalistic) uses of the term "extremism," associating it with terrorism, might lead to misunderstandings of particular groups (Schipper, 2003).

To counter such simplistic understandings of religious extremism, we present a multidimensional model of religious extremism that aims to advance our knowledge of religion as a complex and diverse social identity (Ysseldyk et al., 2010). In particular, we challenge the idea that religious extremism manifests only in one particular way and suggest that one dimension of religious extremism (e.g., a radical agenda in politics) may not necessarily be accompanied by extremism in another dimension (e.g., intolerance for diversity in rituals). To understand people's willingness to support violent political action, we therefore need to explore religious extremism on multiple dimensions and be open to the idea that not every form of religious extremism is associated with a willingness to achieve goals in violent ways.

In this paper, we briefly review the different interpretations and understandings of extremism within religion and propose an alternative model that allows for a more accurate and complete understanding of various dimensions of religion. We argue that our analysis will help to explain why, despite the perceived similarities that lead outsiders to cluster them together, extreme movements are often in conflict with one another over what it means to be a good religious person. To illustrate the multidimensional nature of religious extremism, we focus on one particular context: Indonesian Muslims. We propose that in other faith contexts, the dimensions proposed may need to be expanded or adjusted to be more accurate and useful.

MODERATE VS. EXTREME RELIGIOSITY

In psychological research, a variety of terms have been used to describe an engagement with religion, such as religiosity (e.g., Gibbs and Crader, 1970; Diener and Clifton, 2002; Paloutzian, 2017), religious fundamentalism (Altemeyer and Hunsberger, 1992; Williamson, 2010; Liht et al., 2011), radicalism, or extremism (e.g., Simon et al., 2013; Webber et al., 2017; Kruglanski et al., 2018). These terms are sometimes used interchangeably, and sometimes contested (e.g., religious fundamentalism may be used by some scholars to refer to a rigid interpretation of scriptures, in contrast to religious extremism which is often associated with a particular political agenda). Moreover, while religiosity has been linked to positive outcomes such as higher well-being (e.g., Carlucci et al., 2015) and life satisfaction (e.g., Bergan and McConatha, 2001), religious fundamentalism and extremism have been linked to more negative outcomes such as prejudice (Altemeyer and Hunsberger, 1992), hostility (Koopmans, 2015), or even armed conflict (Cornell, 2005).

One prominent definition of extremism as a motivation for terrorism is that extremism comprises ideological beliefs about an obligation to bring back the political system to a form suggested by religious norms through violence (Arena and Arrigo, 2005). Therefore, the label of extremist is attributed to groups fighting for their political agendas against mainstream systems accepted by the majority of people (e.g., ISIS against the government of Syria, or MILF or Moro Islamic Liberation Front against the government of the Philippines). Such a definition of extremism associated with political violence is related to broad collective responses against perceived oppression or injustice, and it may be fueled by extreme religious dogma or not.

The understanding of religious extremism as political has been elaborated by many scholars. For example, religious extremists have been characterized by Sageman (2008) as seeking martyrdom, and fueled by anger regarding perceived injustice. Similarly, Wiktorowicz (2005) proposed a four-stage model of extremism culminating in violence: first, a cognitive openness to new people or new ideas followed by the experiences of personal or group grievance (e.g., discrimination and oppression). Second, the individual takes up activism, and the openness can lead to an acceptance of the group's extreme norms (e.g., for violence). Belief in the group's claims and willingness to act based on the group's norms can overcome the actor's rational choice perspectives. Thus, when the group's norm allows the use of non-normative tactics such as violence to gain their objectives, the individuals will intentionally commit violence on behalf of the group.

A similar model of religious extremism as the culmination of a trajectory of religious identity into group-based violence is put forward by Silber and Bhatt (2007). The process of being extreme begins with an openness to new thoughts (e.g., in religion) that leads into a process of worldview change. Within this process, a tragic experience can lead to the loss of meaning and connection with the initial identity (e.g., as a religious moderate). The adoption of extreme beliefs and norms fuelled by tragedy is enhanced by the indoctrination process operated by an extreme organization. Again, religious extremism is seen to reach its ultimate end in the expression of violence by the actor.

The above conceptual approaches to extremism associate extremism with violence committed as a group member. Other more individual-level analyses of extremism operationalize it as endorsement of particular beliefs, such as the duty to engage in violent holy war against the enemy (Webber et al., 2017) or sympathy toward extremist groups and support for their political action (Simon et al., 2013). Some analyses have spanned both individual and group levels: for example, Schmid (2014) proposes that either for individuals (i.e., personal beliefs) or groups (i.e., as embedded in salient group norms), the five warning signs of religious extremism include belief in absolute truth, endorsement of blind obedience, a quest to establish utopia, belief that the end justifies the means, and a declaration of holy war. Similarly, Hogg and Adelman (2013) have defined extremism through the aspects covering group level (i.e., a radical agenda, support for violent action, and authoritarian leadership) and individual level (i.e., extreme pro-group action).

While we applaud the development of more nuanced ways to understand religious extremism, and the diversity of definitions above, we propose that such distinctions do not go far enough

in unpacking the multiple ways in which extremism can be expressed. To allow for the development of this diversity, we adopt a broader definition of extremism and define extremism as the extent to which there are clear norms about appropriate behavior and very little latitude in accepting different pattern of norms or particular behaviors. Thus, the focus is not so much on the behavior itself, but on the extent to which particular behaviors are normatively prescribed within a religious group with little room for deviating from that. Therefore, what is perceived as extreme in one historical or cultural context may be moderate or mainstream in another. This usage is in contrast to the definitions proposed by scholars who have associated extremism exclusively with violent intergroup conflict.

In line with Sedgwick (2010), we propose that religion, either at individual or group level, can be expressed along a continuum ranging from moderate to extreme, but go further by arguing that there is not one continuum, but multiple dimensions of religion. We discuss the implication of embracing extremism in one dimension but not in others, and argue that the specific constellations of moderate vs. radical features are important when considering how religion is expressed. To illustrate the multiple dimensions of religious extremism, we focus on the context of Indonesian Muslim groups. We propose that our analysis should also help to understand religious extremism in other faith groups but that the dimensions on which moderate vs. extreme religiosity may be expressed may vary.

THE MULTIDIMENSIONALITY OF RELIGION AS A FRAMEWORK TO UNDERSTANDING EXTREMISM

We are certainly not the first to propose that there are multiple dimensions to religion and that these dimensions uniquely connect to important behaviors, such as life satisfaction, stress, youth deviancy. Glock and Stark (1965) suggested that within all religions, there are five distinct components: ideological (beliefs), intellectual (knowledge), ritual (overt religious behavior), experiential (feelings or emotions), and consequential (the effect of religiosity in the world). More recently, Saroglou (2011) proposed four basic dimensions of religion and individual religiosity that are partially distinct: *believing* (i.e., representing the cognitive function of religion), *bonding* (i.e., experiences that bond individuals with perceived transcendent reality, others, and the inner-self), *behaving* (i.e., specific norms and moral arguments defining right and wrong), and *belonging* (i.e., identification with particular tradition, denomination, or a specific religious group). According to these models, and others, the behavioral expression of religion is complex and multi-faceted.

We draw on these frameworks to examine religious extremism. Combining insights from these prior models, we propose a multidimensional structure to religion that can help to understand the ways in which moderate vs. extreme religion can be expressed. We elaborate our four-dimensional model below, but to summarize: our starting point is the literature on violent religious extremism, where the most common dimension identified (and often the only dimension considered) is the political dimension. In addition, we were inspired by various religious movements in Indonesia that have different emphasis on their narratives and actions. For example, a group named *Wahdah Islamiyah* has a strong campaign to purify Muslims' theological beliefs and the way religious rituals are conducted, seeking to return to an ideal standard of the past. However, they tend to accept the current political system employed to rule the nation. In contrast, *Hizbut Tahrir*, a banned organization in Indonesia, proposes that Muslims are responsible to recreate an Islamic empire, by rejecting democratic systems and nation-states; however, *Hizbut Tahrir* does not typically engage in theological debates. Therefore, alongside the political dimension, we also consider three other dimensions which emerge in seeking to understand religious extremism in Indonesia. A second theological dimension of extremism that is relevant in the Indonesian context is adapted from Saroglou's (2011) *believing* dimension: we propose that religions share theological beliefs, and these beliefs might be extreme or moderate. In the Indonesian context, a third, ritual, dimension is inspired by Saroglou's (2011) *bonding* dimension indicating that religion bonds its members through ritual practices. Some groups have very little latitude in how they understand and practice their religious rituals and justify the other practices as forbidden innovation. Finally, we propose a social dimension that captures the intra- and intergroup relations of the religious group in Indonesia. Intra-group processes include the specific group norms that control the members' moral compass and relations to each other. Intergroup processes include the categorization of in-groups and out-groups as reflected in Saroglou's dimension of *belonging*, but also the specific group norms controlling relations to members of other faiths.

Before elaborating these dimensions, it is important to note that the four focal dimensions in the present paper do not imply that other dimensions do not exist when explaining religious extremism. We propose that the present dimensions are important in understanding religious groups' perspective in the contemporary Indonesian context. Yet, these four dimensions may become more or less important as a result of particular historical and cultural developments or group comparisons, and this may also mean that other dimensions may need to be considered for other religious groups, and when studying other contexts (see also, Zarkasyi, 2008; Ysseldyk et al., 2010). Below we consider the four dimensions in turn, and identify how the dimensions might be used in research.

MODERATE VS. EXTREME RELIGION: A MULTIDIMENSIONAL APPROACH BASED ON RELIGIOUS MOVEMENTS IN INDONESIA

We address religious extremism and the multiple dimensions of religion in **Figure 1**. Using a classical standpoint that religion is expressed through multiple dimensions (Glock and Stark, 1965; Saroglou, 2011), we propose to examine a multidimensional

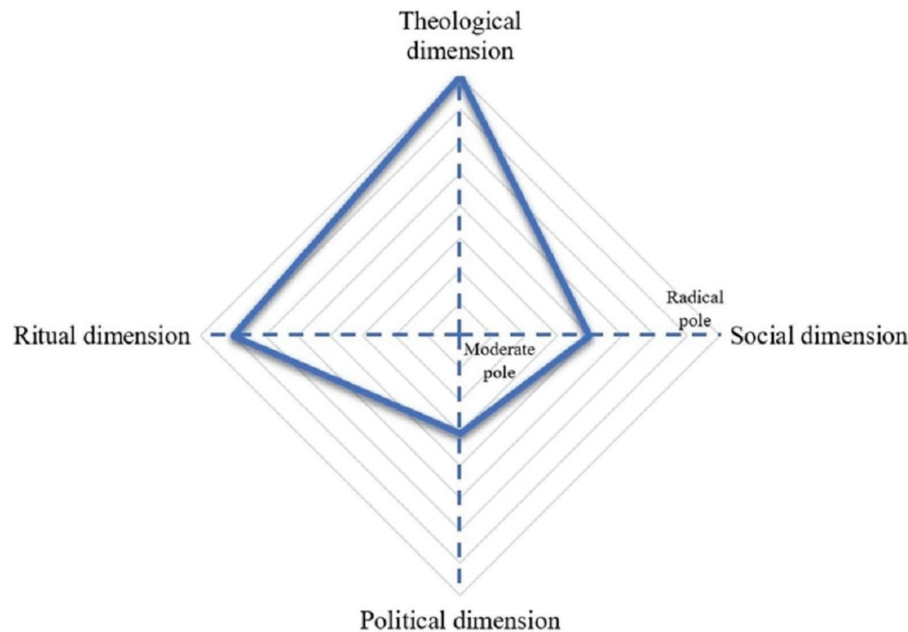

FIGURE 1 | Illustration of the extreme-moderate continuum across a multidimensional representation of religion. The figure illustrates a religious group with high extremism in theological and ritual dimensions but moderate beliefs in the social and political dimensions.

religious extremism through separate political, theological, ritual, and social dimensions which may or may not co-vary.

We argue that this exercise enables a more nuanced and comprehensive understanding of religious extremism as presented in **Table 1**. In what follows, we draw attention to the interplay of these different dimensions for different religious groups. We argue that the four dimensions of religious extremism (i.e., political, theological, ritual, and social) provide a useful framework to locate religious groups, which allows for a better understanding of the way in which their religion is expressed and, importantly, the way in which they aim to achieve religious goals by peaceful or less peaceful ways. Following our outline of the four dimensions, we discuss a methodology for measuring context-specific religious extremism and discuss research applications.

From Moderate to Extreme: The Political Dimension

The way that religion and politics should relate has been a source of intense debate and struggle throughout history (Armstrong, 2000). In the psychological literature, the political dimension of religion has not received much attention (e.g., Diener and Clifton, 2002; Saroglou, 2010) unless it is in the context of "bad" religion (Basedau et al., 2016). Nevertheless, as noted above, political beliefs and actions have been the primary focus of "religious extremism" as defined by scholars (e.g., Webber et al., 2017). In this approach, extreme religious movements seek political power, to promote the adoption of their religious norms through laws or force.

Contemporary religious extremism in the political dimension for Islam is often associated with support for the Caliphate or Muslim empire, which persisted in various forms from the 700 s to 1924 AD, when the last Ottoman Caliphate was abolished in Turkey. During this time, Islam was associated with both a hierarchical, sometimes expansionist, imperial state and a specific system of religious, legal, and cultural practices called *sharia* law. More extreme groups advocate a radical agenda in political change (e.g., a resurrection of an Islamic empire, a borderless state encompassing all Muslim nations, Ward, 2009; Osman, 2010a). They believe that political norms should be applied to change the current locally adapted political systems across many Muslim countries. Other, more moderate groups, however, strive for an integration of religious values within the current political systems (e.g., democracy, national state, etc.). They tend to believe that religion should not be politically represented through the legalization of its social order.

The political dimension is typically the most salient dimension for scholars when discussing Islamic religious extremism, as it is for other groups. More extreme stances on this political dimension such as support for comprehensive *sharia*, support for the resurrection of the Caliphate, and the rejection of democracy were used by Fealy (2004) to identify extremist groups in Indonesia (e.g., *Darul Islam*, Indonesian Mujahedeen Forum, Jihad troops, and *Hizbut Tahrir*). In addition, the extent to which religious groups approve of and participate in current political systems in Indonesia has been used to identify the more moderate Islamic movements in Indonesia (e.g., *Muhammadiyah*, *Nahdhatul Ulama*, etc.).

It should be noted, however, that religious extremism on the political dimension can manifest in different ways, and that politically extremist groups propose different paths to

TABLE 1 | Mapping out the moderate and extreme end points of the four dimensions of religion.

Dimensions	Moderate end	Extreme end
Theological	Main characteristic: gracious theology In the context of Muslims: 1. Emphasis on God as a loving God and 2. A flexible interpretation of "jihad" with connotations to positive change.	Main characteristic: authoritarian theology In the context of Muslims: 1. Emphasis on God as an angry God and 2. "Jihad" refers to only a holy war.
Ritual	Main characteristic: tolerance of diversity In the context of Muslims: Viewing the integration of rituals from Islam with local traditions as positive cultural practices.	Main characteristic: intolerance of diversity In the context of Muslims: Actively rejecting local traditions and judging actors involved in them as sinful.
Social	Main characteristic: complexity acceptance In the context of Muslims: 1. Attributing in-group problems to anti-intellectual biases, geopolitical instability, and corruption and 2. Respecting people living with different norms.	Main characteristic: complexity avoidance In the context of Muslims: 1. Attributing in-group problems to out-group conspiracies and 2. Judging others by in-group's specific norms.
Political	Main characteristic: maintenance agenda In the context of Muslims: Integrating Islamic values with modern political concepts.	Main characteristic: radical agenda In the context of Muslims: Advocating for a resurrection of an Islamic empire.

reconcile the constitution with religious norms. For example, some religious groups propose to promote *sharia* laws through democratic governance, other groups reject the current political system by actively campaigning for the imposition of *sharia* without violence; and finally, still other groups are willing to use violence to destabilize the government (See Ward, 2009; Webber et al., 2017). With or without support for violent means of creating change, the advocacy toward comprehensive *sharia* law as well as the revival of an Islamic empire reflects a radical agenda to transform the current established political system.

In addition to these different views regarding the place of religion in the state, groups of Muslim also differ in their support for democracy (e.g., Halla et al., 2013). Some of them reject democracy, believing that democracy as a political system is incompatible with Islam (Fealy, 2004; Ward, 2009), that Islamic instructions about all matters relating to life are clearly articulated in the Quran and *Hadith* (the words, behaviors, and approvals of the prophet). This view holds that the *musyawara* (political discussions to reach a consensus) should only be used for decisions about particular technical matters, not core principles of social functioning (Nurhayati, 2014). In contrast, some other groups of Muslim do not favor or sanction a particular political system, but rather advocate for principles of tolerance and respect in the governance of all political systems. In this way, the latter groups perceive democracy as one way to manage national affairs that is not in conflict with Islam (Ward, 2009; Nurhayati, 2014).

From Moderate to Extreme: The Theological Dimension

Theological beliefs define religion for lay people (Saroglou, 2011), and researchers such as Stark and Glock (1968) have highlighted the importance of conceptual representations of God in understanding people's engagement with their religion (see also, Granqvist et al., 2010). Different conceptualizations of God provide a meaningful snapshot of a believer's religious worldview. How then do more moderate vs. more extreme forms of religion take shape? We propose that for religious groups that are located at the moderate end of the theological dimension, beliefs of an impersonal cosmic force distanced from worldly affairs (deism) dominate. Moderate views of God as a personal agent (theism; Bader and Palmer, 2011) present a being fostering love and not hostility, whereby the image of God is characterized by gracious images (e.g., The Merciful, The Benevolent, etc.) allowing different religious interpretations and expanding the acceptance toward different patterns of norms. In contrast, groups that are located at the extreme end of the theological continuum typically view God as a personal agent and embrace names for God that contain an authoritarian image (e.g., The Compeller, The Conqueror, etc.) leading into rigid interpretations and coercion to suppress different narratives.

There is evidence that these images of God are consequential. For example, normative beliefs associated with an authoritarian image of God predict more support for capital punishment (Bader and Palmer, 2011). In addition, an authoritarian conception (e.g., God as the One who strikes down in anger) has been found to be associated with a disposition to think, feel, and act more punitively toward people considered to be "evil." In contrast, people who characterize God in a more nurturing way (e.g., God is love) react in a more prosocial way toward others (Granqvist et al., 2010). Historically, an authoritarian image of God was frequently associated with apocalyptic narratives to attract people to convert into their group and to force people to leave their "immoral" norms (Bossy, 2001).

Building on this approach, we propose that variation on the theological dimension of extremism is associated with different behaviors to achieve group goals and to show loyalty to the religious group. Moderate positions on the theological dimension are indicated by the prominence of gracious images of God and an appreciation of differences in theological beliefs. Conversely, those groups located at the extreme end of the theological continuum, embracing an authoritarian image of God, are more likely to strike at perceived contrary theological beliefs. For example, we propose that those who believe in an authoritarian, persecuting God will be more likely to believe

that natural disasters occur more frequently to groups who live in ways that God disapproves of. Furthermore, Muslims who endorse an authoritarian conception of God will tend to define the meaning of "*jihad*" as the duty to engage in a holy war, whereas those located at the more moderate end of the continuum will take a more flexible interpretation of the word "*jihad*" as behavior aimed at creating positive change (Esposito, 2002). A similar distinction can be witnessed in Christianity: interpretations of the religious duty to build the "Kingdom of God" will be interpreted by moderates as a spiritual exercise to transform society toward being more loving, caring, and inclusive, whereas for those Christian groups located at the extreme end of the theological continuum, this duty is seen as a need to build a physical empire established through crusading military ventures (Whitlark, 2011).

From Moderate to Extreme: The Ritual Dimension

Specific rituals allow for the expression of worship or shared feelings with others (Whitehouse and Lanman, 2014), helping to construe notions of religion as a lived experience. Many religious people believe that their religious rituals are guided directly by God. For instance, most Muslims believe that God directs their main rituals including their prayers five times per day. However, once religion has spread to a wider community, different patterns of rituals may emerge from either local customs or from the integration of religious rituals with local traditions. This accommodation of new practices can often polarize religious adherents into groups who are either open to new influences, or who reject compromises and see them as forbidden innovations. For instance, some Mandinga immigrants in Portugal view a "writing-on-the-hand" ritual as essential for conferring both Muslim and ethnic identities (Johnson, 2006). In the ritual, children are initiated into Quranic study (and adulthood) by having a verse written on their hands, which they then ceremoniously lick off, ingesting the verse. The ritual is contentious to those who feel that this Mandinga "custom" should be abandoned to keep Islam pure (Johnson, 2006).

We propose that intolerance of diversity in ritual practices distinguishes moderates from extreme religious groups on this dimension. Moderate religion on the ritual dimension is indicated by tolerant views about the influence of local traditions on the way rituals are performed. Moderate groups can accept the influence of tradition within ritual as it is not a compulsory ritual and not directly taught by God. Conversely, those groups located at the extreme end of the theological continuum are more likely to strive to keep religious rituals pure. This often goes together with vigilance to protect the integrity of rituals, but also with intergroup tension whereby extreme groups accuse more moderate groups of being sinful in their practice. For example, the *Salafi* movement in Indonesia is the strongest group to strive for purity in rituals opposing more relaxed Muslim religious traditions such as allowing worship in the ancestors' graveyard and the celebration of the Prophet's birthday. To some extent, the Salafi movement labels the fellow Muslims who perform those rituals as idolatrous (*Musyrik*) or even infidels (*Kafir*). The labels, of course, are psychologically painful for the labeled groups of Muslims. Within the Christian tradition, the Puritan movement is one historical example of ritual extremism, rejecting other Christian denominations as insufficiently pure and compromised by lax tolerance of cultural practices.

From Moderate to Extreme: The Social Dimension

The social dimension is concerned with intergroup relations with other groups (religious and otherwise) as well as intragroup processes, reflected in norms regarding how to interact with others. Extremists on the social dimension typically have a hostile view of other faiths. In their view, out-groups use sinister conspirators as pawns to influence their religious group members (Fealy, 2004; Kohut et al., 2006). As a result, blaming others (e.g., foreigners) for in-group disadvantage is a common narrative to raise support from the public for their agenda. In contrast, more moderate members of a religion often attribute the root causes of in-group problems to internal factors such as anti-intellectual biases, geopolitical instability, and corruption (Lackey, 2013). The moderate groups tend to be more open to complexity in analyzing the causes of the in-group's problems. Moderate groups also place greater emphasis on the need to change to address modern concerns.

Consequently, more moderate groups tend to be more open to collaboration in inter-religious and inter-cultural dialogue whereas more extreme religious groups emphasize rejection and avoidance. Interfaith dialogue is often developed by more moderate religious activists to strengthen inter-religious cooperation as a way to solve common problems (e.g., environmental issues, a cohesive national identity, economic issues, and law enforcement). However, more extreme religious groups often actively reject this collaborative effort, as they perceive inter-religious dialogue as part of a conspiracy to weaken the faith in their religion.

Turning to intragroup relations with other members of the faith community: religion serves as an organizing set of key values that are captured and expressed in group norms. In the context of social relationships, such group norms may vary in the extent to which they tolerate difference and dissent within the religious group. At times, harsh attitudes toward dissenters and deviants may prevail when universal values of tolerance and group-specific values clash and individuals are forced to follow group-specific values. For instance, because Islam forbids liquors, some Muslims would like to force the government to ban the trade in alcohol, without considering that other groups of people have different norms permitting alcohol consumption (Osman, 2010a). In the context of Indonesia, an active group called the Islamic Defenders Front (FPI) is one of many aiming to force the entire nation to follow one version of Islamic social norms (Arifianto, 2017). Hence, the social dimension of religious extremism in our approach is indicated in Indonesia by patterns of externally

attributing the causes of in-group disadvantages, and forcing out-groups as well as all in-group members to follow narrow, prescriptive social norms. Naturally, social and political dimensions of religion will often be inter-related, especially where groups seek political power to impose their socially extreme viewpoint. However, in distinguishing the two dimensions, we highlight that some groups will be socially extreme without endorsing extreme political views or seeking political power. Groups who expel internal heretics and who shun contact with infidels without trying to dominate them may fall into this category, in our model.

THE INTERACTION AMONG MULTIPLE DIMENSIONS OF RELIGIOUS EXTREMISM IN INDONESIA

As mentioned, the discourse of religious extremism has mostly been related to the political context (Fealy, 2004; Zarkasyi, 2008). To illustrate the importance of not just exploring the political dimension when understanding religious extremism, we took a closer look at some "extremist" Islamic movements in Indonesia (i.e., that score high in extremism on the political dimension). In an attempt to understand different forms of extremism more comprehensively, we compared these groups on the other three dimensions. Before outlining our findings, it is important to note that the classification of a particular group as politically extreme was based on specific historical events and developments: by acts of political rebellion by *Darul Islam* (Domain of Islam) and *Negara Islam Indonesia* (Indonesian Islamic State) in 1949. This was also the basis for selecting as extreme the current political movement *Hizbut Tahrir* and Islamic defender front (FPI) who have gained support after the reform of 1998 (Fealy, 2004; Muhtadi, 2009; Osman, 2010a).

There are important similarities between *Jamaah Islamiyah* (JI), *Majelis Mujahidin Indonesia* (MMI), and *Hizbut Tahrir* (HT) across all four dimensions of religious extremism. All groups score high in extremism on the political dimensions in that they demand a comprehensive legalization of *sharia*, a fully Islamic state, recreation of Caliphate, and the abolition of democracy in Indonesia. However, these groups differ from other politically "extreme" groups in Indonesia. For example, the Islamic Defenders Front (FPI) supports a comprehensive legalization of sharia, but endorses democracy and rejects the revival of the Islamic state and Caliphate (Fealy, 2004). Another group (*Laskar Jihad* or Jihad Troops) demands comprehensive *sharia* and rejects democracy, but also rejects the revival of the Islamic state and Caliphate. Both these commonalities and differences have consequences for their relationship with other religious groups and the way they aim to achieve their goals. While we acknowledge the importance of unpacking the political dimension into constituent elements in some cases, our argument is that to fully understand these groups, we also need to explore where these groups stand on the other three dimensions of religious extremism (i.e., theological, ritual, and social dimensions).

In terms of extremism in the theological dimension, notions about an angry God who uses natural disasters punitively are particularly important to tease the different extremist groups apart. For instance, some Muslim groups in Indonesia claim that ritual celebration of the local tradition in Palu in Central Sulawesi is a main cause of the earthquake and tsunami that hit the Indonesian coast in 2018, killing more than 2000 people. Likewise, such attributions also dominated when explaining the 2018 earthquake in Lombok Island (Habdan and Baits, 2018). These groups emphasized that the earthquake is a punishment from God to show disapproval of the politically different attitudes that are promoted by the political leader of the Island (Hasan, 2018). Interestingly, such theological beliefs do not lead to a push for change of the political system, but only to an invitation to return to Islamic norms as they understand them. This shows that an extreme theological belief may not be correlated with extremism on the political dimension.

However, extremism in the theological dimension may also be related to a narrow interpretation of *jihad* as a core principle in Islam. Most Muslim groups believe that *jihad* means any zealous effort to bring about a better world (Esposito, 2002). However, some groups restrict its interpretation to waging holy war, such as Jemaah Islamiyah (JI), *Salafi Jihadi* groups, and *Jemaah Ansharut Tauhid* (Haron and Hussin, 2013). Theological beliefs restricting the meaning of jihad to waging holy war have an impact on political extremism, in that these can drive believers into intentions to verbally or physically attack the hated out-groups to engage in jihad.

Finally, some groups that are located at the extreme end of the ritual dimension are actively campaigning to purify religious rituals and to suppress local traditions that are perceived as deviating from Islam. For example, some groups such as the *Salafi* movement and *al Wahdah al Islamiyah* in Indonesia campaign against local traditions and push for the Muslims to relinquish traditions that are perceived as not taught by the prophet (Salman, 2017). Importantly though, these movements do not use physical violence in their efforts, and they accept and participate in the political system in Indonesia. Thus, although these groups tend to be extreme on the ritual dimension, they are more moderate on other dimensions. For example, they have a broader conception of *jihad* (i.e., a struggle for positive change), and they do not prevent their members from participating in the current political system.

We have argued that extremism on the social dimension is represented by the tendency to blame others for the group's disadvantage and to force compliance to specific in-group's norms. We propose that the tendency to forcefully demand adherence to a narrow version of the in-group's norms typically results from feeling threatened by out-groups' norms. For example, the Muslim Forum of Bogor (FMB) released a public statement calling on the city mayor to ban the celebration of Cap Go Meh by Chinese people in the city. Even though such social extremism often involves intolerance of norm violations, social extremism is not always followed by extremism on other dimensions (e.g., ritual dimension). In particular, social extremism in Indonesia is rarely linked to terror campaigns.

THE CONSEQUENCES OF SIMILARITY IN EXTREMISM ON MULTIPLE DIMENSIONS FOR INTERGROUP RELATIONS

The different ways in which religious groups express their religious identity on the theological, ritual, social, and political dimensions affect not only the ways they aim to achieve their goals but also the ways they relate to other religious groups. Using social identity theory as a lens to conceptualize intergroup relations (Turner and Oakes, 1986), we propose that the nature of intergroup relations between moderate and extreme religious groups is determined by the perceived degree of similarity on the four dimensions. As an illustration, two groups or more can cooperate with each other in their collective action when they perceive shared values and a larger identity, while breaking into conflict when internal differences are salient. For example, in Indonesia, when the former governor of Jakarta (Basuki Tjahaya Purnama aka Ahok) was eventually indicted on charges of insulting a section of the Quran, many Muslim groups were united in their efforts to demand punishment of him. A series of mass protests against the perceived blasphemy were attended by hundreds of thousands of people across the country (Fealy, 2016). From an identity perspective, it can be argued that the shared outrage about the former governor who was perceived to have insulted Islam brought different Muslim groups together, and different groups worked together to address the common grievances and the common threats to the superordinate Muslim identity.

Despite this example of unity, it is also clear that there are many instances when relationships between moderate as well as more extreme religious groups are more tense. We argue that these tensions can also be better understood by taking account of the way in which moderate vs. more extreme expressions of identity take shape on the four identified dimensions. For example, members of The Prosperous Justice Party (PKS) and members of *Hizbut Tahrir* largely take the same stance on the social dimension in that both groups want to generate a new Islamic social order *via* the legalization of *sharia* in Indonesia. However, The Prosperous Justice Party (PKS) frequently criticizes the members of *Hizbut Tahrir* because they disagree with the best "Islamic" method to achieve their shared goal. Their disagreement emerges on the political dimension because PKS supports the democratic system, as indicated by their participation in the general election, while *Hizbut Tahrir* absolutely rejects the democratic system and avoids democratic politics as a way to raise political power.

The possibility of compromise between two politically extreme movements depends on the level of identity (i.e., subgroup or subordinate identity) that is activated. When they confront common enemies (e.g., a group of Muslims or politicians who strongly support Indonesian diversity and oppose the legalization of Islamic law), the salience of their superordinate identity (i.e., as Muslim groups advocating the legalization of Islamic law in Indonesia) may increase, and they may compromise or even integrate. However, open conflict is also likely, even if the groups are similarly extreme on one dimension, when differences on another dimension are salient.

A similar pattern may be observed among groups of Muslims who are identified as extreme in ritual dimensions. The *Salafy* movement and other groups (e.g., *Mathla'ul Anwar*, *Wahdah al Islamiyah*, etc.) may unite to produce narratives for ritual purification, and to accuse Muslims who practice local traditions and their supporters of religious error. That is, when they face moderate Muslims (e.g., *Nahdhatul Ulama*, a group which supports the preservation of local traditions and diversity), they will activate a shared superordinate identity and work together. However, those ritually extreme groups can conflict with each other when political differences are salient. For example, many *Salafy* group members perceive that public protest is an illegitimate action according to Islam, while other groups who share their extreme identity on ritual dimension perceive it as legitimate tactic. The differences along the political dimension can lead them into efforts to dominate each other, and open contests for power.

The consequence of similarity and difference in the dimensions of religious extremism is relevant previous work on identity and conflict (Haslam et al., 1999). In this model, the salience of subgroup identity (e.g., as an activist of PKS or *Hizbut Tahrir*) can lead to a tendency to seek in-group favoritism, which in turn enhances their sense of self. However, when superordinate identity is salient (e.g., as Muslims who support the legalization of Islamic law in Indonesia, or as Muslims in a broader context), in-group members perceive the members of other Islamic movements as members of the same group. According to this, an approach to religious extremism that focuses solely on one dimension will miss the different ways in which the two groups align (e.g., socially) and are different (e.g., politically), which in turn would fail to predict the group members' political alliances or conflict.

APPLYING THE MODEL

To apply this model in more practical uses, we need to revisit the reason of this multidimensional model development. Unidimensional categorization of moderate vs. extremist lead to simplistic understandings whereby people with highly conservative beliefs in religion are associated with support for violence and terror. We propose that extremism is expressed along different dimensions and the mapping of groups and individuals using multiple dimensions in the model will help to understand the patterns of narratives and actions delivered by the groups. This allows for a more nuanced understanding of religious violence whereby we acknowledge that violence can be motivated by different reasons (not necessarily related to political causes) and that the interplay between different dimensions on which extremism can be expressed can either fuel or restrict religious violence (e.g., when a religious group is located at the extremist end of the political dimensions, but collectively shared theological beliefs preclude exercising violence).

Moving away from over-simplified representations of religious groups as politically motivated, the presented framework offers a practical method to understand the multi-faceted nature of extremism. It aims to analyze religion at both a group and individual level, augmenting scholarly understanding of the religious dimensions that may be relevant to enable accurate predictions of violent extremism based on ideological narratives (Kruglanski et al., 2018). Even though the four dimensions of religious extremism that we present here are informed by prior research on extremism and religiosity, the model that we developed is tailored to the context of Indonesian Muslims and their religious movements. When adopting this model in different or wider contexts (e.g., Islamic movements in Pakistan or Egypt, or Christian groups in the Philippines or Northern Ireland), researchers need to think carefully about the transferability of the model.

Practically speaking, when adopting the model in other contexts, researchers need to engage in qualitative exploration of the dimensions religious groups use to express their religiosity. For every dimension found in a particular context, the researchers should then explore what the indicators are of extremism compared to moderate beliefs. Rich descriptive information about the context and specific intra- or intergroup processes need to be considered to enable a multidimensional model tailored and adapted to specific contexts. In this, some dimensions (e.g., ritual, political) may not apply to all contexts, while other new dimensions might need to be added.

Such an exploration may well lead to the conclusion that the political dimension is the most important dimension to explain violent behavior and that the other three proposed dimensions (e.g., theological, social, and ritual) are less relevant. Consider for example the current extremism by Rakhine Buddhist in Myanmar against Rohingya Muslims. Violent actions against Rohingya Muslims in 2017 by Rakhine Buddhist were justified as mere crackdowns against suspected Rohingya insurgents, suggesting that the political dimension may be most important to understand extremism in this context. However, in other contexts, other dimensions appear to have triggered violence. For instance, and also in the context of Buddhist violence, the terrorist sarin attack in the Tokyo subway in 1995 by the cult group Aum Shinrikyo was not so much driven by extremism on the political dimension, but by extremism on the theological and/or ritual dimension. Specifically, the attack was motivated by a strong consensually shared belief among cult members that violence of this form would wash away their sins and this would allow them as a group to survive the imminent Armageddon.

What these examples also make clear is that the content of the different dimensions and the way that moderate vs. extreme religiosity manifests itself differ for different religious groups. Specifically, while it is important to understand political violence among Indonesian Muslims in terms of views on *sharia* laws, in the Myanmar context, political extremism centers on views against minorities and their rights. Or, while theological extremism in Indonesia is concerned with the view of God and ritual extremism relates to tolerance for deviating from generally accepted normative ways of enacting religion, for Aum Shinrikyo in Japan, extremism on these dimensions is related to narratives and beliefs around Doomsday.

Finally, when applying the model in other contexts, it is important to consider new dimensions that may be important in understanding extremism. For example, Smart (1999) identifies seven dimensions of Buddhist religiosity, including novel dimensions such as the mythological and the experiential. Scholars would discover if these dimensions or others are relevant to differences between moderates and extremists (for example, if Buddhist groups who are more mystical are less likely to be extremist) through exploratory research and pilot testing.

We, of course, support the prevention of violent extremism, but we also support the notion that being extreme in religious beliefs is not always linked to support for employing violent tactics (Austin, 2018). Motivating people to participate in violent intergroup conflict, strong narratives about injustice and expected changes may be involved (Moghaddam, 2005; Horgan, 2008). However, in many contexts (i.e., when the conflict involves religious groups), religious narratives can fuel the willingness to join violent movements on behalf of their group. By capturing how extremism is manifested across particular dimensions and how these dimensions predict support for violence, policy-makers can be more focused in countering the religious narratives that might be employed as the catalyst of violence and which are not relevant to address (or even counter-productive).

IMPLICATIONS

This paper highlights that religious extremism is not a unified and ubiquitous phenomenon; rather, religious extremists differ on a number of dimensions in how they express their religion, and consequently, how they aim to achieve important group goals. Using the context of Indonesian Muslim groups to explore these ideas, we propose that religiosity in Muslims can be moderate on one dimension and radical/extreme on another. For instance, even though the *Salafi* movement has been generally identified as extremist (Haron and Hussin, 2013; Jones, 2014), to understand their extremism, we argue that it is important to be both mindful of the group's extreme position when considering theological and ritual dimensions, but also their comparatively moderate stand politically. For example, even though Salafi movements in Indonesia perceive politics as morally corrupt (Chozin, 2013; Parveez, 2017), they nevertheless tend to avoid a political debate, and obey the rules of the existing government insofar as the government does not prohibit their religious rituals (Haron and Hussin, 2013; Parveez, 2017).

In a similar vein, the group *Hizb al-tahrir* is extreme in its stance on the political dimension, as it aims to revive the Islamic empire by overthrowing the concept of the nation state (e.g., Ward, 2009; Osman, 2010b). Nevertheless, their activists are moderate on the ritual dimension – they do not criticize other Muslims for their "innovative" rituals (e.g., celebration of the Prophet's birthday) – and they do not support the use of physical violence in pursuing political demands (See: Ward, 2009; Schmid, 2013; Parveez, 2017). The group believes that *jihad*

means a holy war, but not as the way to establish the *Caliphate,* but to conquer other nations after the Caliphate is established (Azman, 2015). In addition, this group was actively involved in protests to reject the cultures and norms of other groups in Indonesia on behalf of Muslim as majority (e.g., rejecting the celebration of Valentine's day). We might argue that *Hizbut Tahrir* is not only extreme in its political dimension, but also theological and social dimensions. Nevertheless, this group seems to be moderate in the ritual dimension.

Our purpose in this paper is to illustrate that different dimensions of religion are relevant to understanding religious extremism, and that the four dimensions discussed provide clarity in distinguishing a diversity of extreme vs. moderate presentations in the Indonesian Muslim context. Identifying religious extremism as multidimensional helps moving beyond labeling Muslims simply as liberal, extreme, progressive, moderate, or radical. These labels fail to capture the various religious groups' similarities and differences across different dimensions, and wrongly cluster together religious actors with quite different historical pasts and future trajectories. This "concept creep" (Haslam, 2016) or "jingle-jangle fallacy" (Van Petegem et al., 2013) prevents scholars from identifying the antecedents, character, and consequences of religious extremism in different aspects of life.

We invite scholars to consider extremism in relation to individual and group positions on theological, ritual, social, and political dimensions, and to expect a diversity of contestations within a faith that do not always co-vary. With this approach, it is important to be mindful of the fact that when researchers explore the relationship of religious extremism and other psychological processes, the type (dimension) of extremism needs to be considered. For instance, as seen in the narratives of some extremist groups in Indonesia who highlight the "crisis of Islam" as a call to seek systemic change, we predict that perceived injustice toward the religion by outsiders can enhance extremism on the political dimension, but may not affect extremism on the other dimensions as strongly. In this way, we can advance knowledge of religious extremism, allowing us to move toward a more complete understanding of what is not just one phenomenon, but a constellation of related phenomena in an evolving, complex religious system of beliefs and acts embedded in broader historical and cultural change and stability.

CONCLUSION

Labeling groups or individuals as extremist is often misleading. The label has a narrow pejorative meaning which too often associates extremism with terrorism (e.g., the Bali bombings, or the Paris attacks). Failure to understand the complexity of religious extremism risks stigmatizing some religious groups as irrational and supporting of violence when this is not the case. These negative stereotypes can lead to separation, status loss, and discrimination, as well as wasted resources in mis-targeted counter-terrorism initiatives, and squandered political capital. Our hope is that a more comprehensive understanding of religious extremism will facilitate better insight and nuanced dialogue. Understanding the multidimensionality of religion in the context of religious extremism will help in accurately depicting this phenomenon, and will facilitate understanding by scholars of the complex group processes associated with religious change, which have been neglected to date.

AUTHOR CONTRIBUTIONS

SW conceived of the presented idea. SW wrote the manuscript with support from WL and JJ. SW, WL, and JJ contributed to the final version of the manuscript, responding to reviewers' feedback.

FUNDING

SW received a PhD scholarship from the Indonesian Endowment for Educational Fund (PRJ-3449/LPDP.3/2016). The research is also supported by an Australian Research Discovery grant (DP170101008) awarded to JJ.

ACKNOWLEDGMENTS

We would like to thank Joshua Rhee, Zahra Mirnajafi, and Sam Popple for helpful editing suggestions on earlier versions of the manuscript.

REFERENCES

Altemeyer, B., and Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and Prejudice. *Int. J. Psychol. Relig.* 2, 113–133. doi: 10.1207/s15327582ijpr0202_5

Arena, M. P., and Arrigo, B. A. (2005). Social psychology, terrorism, and identity: a preliminary re-examination of theory, culture, self and society. *Behav. Sci. Law* 23, 485–506. doi: 10.1002/bsl.653

Arifianto, A. R. (2017). Islamic defenders front: an ideological evolution? *RSIS Comment.* 228, 1–3. https://www.rsis.edu.sg/wp-content/uploads/2017/12/CO17228.pdf

Armstrong, K. (2000). *The Battle for God: Fundamentalism in Judaism, Christianity, and Islam*. New York: Knopf/HarperCollins.

Austin, G. (2018). Extremist or terrorist: spot the difference. Australian Strategic Policy Institute. Available at: https://www.aspistrategist.org.au/extremist-or-terrorist-spot-the-difference/ (Accessed July 31, 2019).

Azman, A. (2015). Jihad perspektif Hizbut Tahrir Indonesia (Jihad from the perspective of Hizbut Tahrir of Indonesia). *Ad daulah* 4, 230–238.

Bader, C. D., and Palmer, A. (2011). "Scared into church? Conceptions of god, exclusivity, and religious practice in the United States" in *Religion, spirituality and everyday practice*. eds. G. Giordan and W. H. Jr. Swatos (Springer Science & Business Media: New York, NY).

Basedau, M., Pfeiffer, B., and Vullers, J. (2016). Bad religion? Religion, collective action, and the onset of armed conflict in developing countries. *J. Confl. Resolut.* 60, 226–255. doi: 10.1177/0022002714541853

Bergan, A., and McConatha, J. T. (2001). Religiosity and life satisfaction. *Act. Adapt. Aging* 24, 23–34. doi: 10.1300/J016v24n03_02

Bossy, J. (2001). *Christianity in the west 1400–1700*. London: OUP Oxford.

Brambilla, M., Manzi, C., Regalia, C., Becker, M., and Vignoles, V. L. (2016). Is religious identity a social identity? Self-categorization of religious self in six countries. *Psicol. Soc.* 11, 189–198. doi: 10.1482/84098

Cainkar, L. A. (2009). *Homeland insecurity: How Arab American and Muslim American experience after 9/11*. New York, NY: Russell Sage Foundation.

Carlucci, L., Tommasi, M., Balsamo, M., Furnham, A., and Saggino, A. (2015). Religious fundamentalism and psychological well-being: an Italian study. *J. Psychol. Theol.* 43, 23–33. doi: 10.1177/009164711504300103

Chozin, M. A. (2013). Strategi dakwah salafi di Indonesia (The Salafi's preaching strategy in Indonesia). *J. Dakwah* 14, 1–25. doi: 10.14421/jd.2013.14101

Cornell, S. E. (2005). Narcotics, radicalism, and armed conflict in Central Asia: the Islamic movement of Uzbekistan. *Terror. Political Violence* 17, 619–639. doi: 10.1080/095465591009395

Coyle, A., and Lyons, E. (2011). The social psychology of religion: current research themes. *J. Community Appl. Soc. Psychol.* 21, 461–467. doi: 10.1002/casp.1121

Diener, E., and Clifton, D. (2002). Life satisfaction and religiosity in broad probability samples. *Psychol. Inq.* 13, 206–209. https://www.jstor.org/stable/1449331

Esposito, J. L. (2002). *Unholy war: Terror in the name of Islam*. Oxford, UK: Oxford University Press.

Fealy, G. (2004). "Islamic radicalism in Indonesia: the faltering revival?" in *Southeast Asian affairs 2004* (Singapura: ISEAS-Yusof Ishak Institute), 104–122. https://www.jstor.org/stable/27913255

Fealy, G. (2016). Bigger than Ahok: explaining the 2 December mass rally. Indonesia at Melbourne. Available at: http://indonesiaatmelbourne.unimelb.edu.au/bigger-than-ahok-explaining-jakartas-2-december-mass-rally/ (Accessed February 15, 2019).

Gibbs, J. O., and Crader, K. W. (1970). Criticism of 2 recent attempts to scale Glock and starks dimensions of religiosity: a research note. *Sociol. Anal.* 31, 107–114. doi: 10.2307/3710060

Glock, C. Y., and Stark, R. (1965). *Religion and society in tension*. Chicago: Rand McNally.

Granqvist, P., Mikulincer, M., and Shaver, P. R. (2010). Religion as attachment: normative processes and individual differences. *Personal. Soc. Psychol. Rev.* 14, 49–59. doi: 10.1177/1088868309348618

Habdan, M. A., and Baits, A. N. (2018). Apa penyebab gempa bumi? dosa, maksiat, salah satunya akibat merajalelanya musik (What does cause earthquake? Sins, immoralities, and one of them is the rampant of music). Nahi Munkar. Available at: https://www.nahimunkar.org/apa-penyebab-gempa-bumi-dosa-maksiat-salah-satunya-akibat-merajalelanya-musik/ (Accessed February 26, 2019).

Halla, M., Schneider, F. G., and Wagner, A. F. (2013). Satisfaction with democracy and collective action problems: the case of the environment. *Public Choice* 155, 109–137. doi: 10.1007/s11127-011-9844-5

Haron, Z., and Hussin, N. (2013). A study of the Salafi jihadist doctrine and the interpretation of jihad by Al Jama'ah Al Islamiyah. *Kemanusiaan* 20, 15–37. http://web.usm.my/kajh/vol20_2_2013/Art%202%20(15-37).pdf

Hasan, A. M. (2018). Mengapa sebagian warganet gemar mempolitisasi bencana sebagai azab? (Why do some people like to piliticize a disaster as a doom?), TIRTO. Available at: https://tirto.id/mengapa-sebagian-warganet-gemar-mempolitisasi-bencana-sebagai-azab-cQE4 (Accessed February 26, 2019).

Haslam, N. (2016). Concept creep: psychology's expanding concepts of harm and pathology. *Psychol. Inq.* 27, 1–17. doi: 10.1080/1047840X.2016.1082418

Haslam, S. A., Oakes, P. J., Reynolds, K. J., and Turner, J. C. (1999). Social identity salience and the emergence of stereotype consensus. *Personal. Soc. Psychol. Bull.* 25, 809–818. doi: 10.1177/0146167299025007004

Hogg, M. A., and Adelman, J. (2013). Uncertainty-identity theory: extreme groups, radical behavior, and authoritarian leadership. *J. Soc. Issues* 69, 436–454. doi: 10.1111/josi.12023

Horgan, J. (2008). Deradicalization or disengagement: a process in need of clarity and a counterterrorism initiative in need of evaluation. *Perspect. Terror.* 2, 3–8. doi: 10.1174/021347409788041408

Johnson, M. C. (2006). 'The proof is on my palm': debating ethnicity, Islam and ritual in a new African diaspora. *J. Relig. Afr.* 36, 50–77. doi: 10.1163/157006606775569604

Jones, S. G. (2014). *A pesistent threat: The evolution of Al Qa'ida and other Salafi jihadists*. Santa Monica, CA: RAND Corporation.

Kohut, A., Doherty, C., and Wike, R. (2006). The great divide: how Westerners and Muslims view each others. The Pew Global Project Attitudes. Available at: http://www.pewglobal.org/2006/06/22/the-great-divide-how-westerners-and-muslims-view-each-other/ (Accessed February 27, 2019).

Koopmans, R. (2015). Religious fundamentalism and hostility against out-groups: a comparison of Muslims and Christians in Western Europe. *J. Ethn. Migr. Stud.* 41, 33–57. doi: 10.1080/1369183x.2014.935307

Kruglanski, A., Jasko, K., Webber, D., Chernikova, M., and Molinario, E. (2018). The making of violent extremists. *Rev. Gen. Psychol.* 22, 107–120. doi: 10.1037/gpr0000144

Lackey, R. (2013). Why have the Islamic countries failed to develop even with resources like oil, while countries with no resources like Switzerland have flourished?. Forbes. Available at: https://www.forbes.com/sites/quora/2013/01/08/why-have-the-islamic-countries-failed-to-develop-even-with-resources-like-oil-while-countries-with-no-resources-like-switzerland-have-flourished/#62f26e9e282c (Accessed February 27, 2019).

Liht, J., Conway, L. G., Savage, S., White, W., and O'Neill, K. A. (2011). Religious fundamentalism: an empirically derived construct and measurement scale. *Arch. Psychol. Relig.* 33, 299–323. doi: 10.1163/157361211X594159

Moghaddam, F. (2005). The staircase to terrorism: a psychological exploration. *Am. Psychol.* 60, 161–169. doi: 10.1037/0003-066X.60.2.161

Muhtadi, B. (2009). The quest for Hizbut Tahrir in Indonesia. *Asian J. Soc. Sci.* 37, 623–645. doi: 10.1163/156853109X460219

Nurhayati, A. (2014). Pemetaan gerakan politik Islam radikal di Pantura Jawa Timur (the mapping of radical Muslims' political movement in north coastal area of East Java). *J. Rev. Politik* 4, 75–102.

Osman, M. N. M. (2010a). Reviving the caliphate in the Nusantara: Hizbut Tahrir Indonesia's mobilization strategy and its impact in Indonesia. *Terror. Political Violence* 22, 601–622. doi: 10.1080/09546553.2010.496317

Osman, M. N. M. (2010b). The transnational network of Hizbut Tahrir Indonesia. *South East Asia Res.* 18, 735–755. doi: 10.5367/sear.2010.0018

Paloutzian, R. F. (2017). Psychological perspectives on religion and religiosity. *Int. J. Psychol. Religion* 27, 127–128. doi: 10.1080/10508619.2017.1286897

Parveez, Z. F. (2017). Who exactly are 'radical' Muslims?. The conversation. Available at: https://theconversation.com/who-exactly-are-radical-muslims-73098 (Accessed February 26, 2019).

Sageman, M. (2008). *Leaderless Jihad: Terror networks in the twenty-first century*. Philadelphia: University of Pennsylvania Press.

Salman, A. M. B. (2017). Gerakan salafiyah: Islam, politik, dan rigiditas interpretasi hukum Islam (the Salafi movement: Islam, politic, and the rigidity of the interpretation of Islamic law). *J. Pemikir. Huk. Islam* 16, 135–152. doi: 10.21093/mj.v16i2.855

Saroglou, V. (2010). Religiousness as a cultural adaptation of basic traits: a five-factor model perspective. *Personal. Soc. Psychol. Rev.* 14, 108–125. doi: 10.1177/1088868309352322

Saroglou, V. (2011). Believing, bonding, behaving, and belonging: the big four religious dimensions and cultural variations. *J. Cross-Cult. Psychol.* 42, 1320–1340. doi: 10.1177/0022022111412267

Schipper, B. (2003). The freedom to do god's will. Religious fundamentalism and social change. *Numen* 50, 476–479. https://www.jstor.org/stable/3270503

Schmid, A. P. (2013). Radicalisation, de-radicalisation, counter-radicalisation: a conceptual discussion and literature review. Research paper. The Hague, The Netherlands: International Centre for Counter-Terrorism.

Schmid, A. P. (2014). Violent and non-violent extremism: two sides of the same coin?. Research paper. The Hague, The Netherlands: International Centre for Counter-Terrorism.

Sedgwick, M. (2010). The concept of radicalization as a source of confusion. *Terror. Political Violence* 22, 479–494. doi: 10.1080/09546553.2010.491009

Silber, M. D., and Bhatt, A. (2007). *Radicalization in the west: The homegrown threat*. New York City: NYPD Intelligence Division.

Simon, B., Reichert, F., and Grabow, O. (2013). When dual identity becomes a liability: identity and political radicalism among migrants. *Psychol. Sci.* 24, 251–257. doi: 10.1177/0956797612450889

Smart, N. (1999). *Dimensions of the sacred: An anatomy of the world's beliefs*. Santa Barbara: University of California Press.

Stark, R., and Glock, C. Y. (1968). *American piety: The nature of religious commitment*. Berkeley, CA: University of California Press.

Turner, J. C., and Oakes, P. J. (1986). The significance of social identity concept for social psychology with reference to individualism, interactionism, and social influence. *Br. J. Soc. Psychol.* 25, 237–252. doi: 10.1111/j.2044-8309.1986.tb00732.x

Van Petegem, S., Vansteenkiste, M., and Beyers, W. (2013). The jingle-jangle fallacy in adolescent autonomy in the family: in search of an underlying structure. *J. Youth Adolesc.* 42, 994–1014. doi: 10.1007/s10964-012-9847-7

Ward, K. (2009). Non-violent extremists? Hizbut Tahrir Indonesia. *Aust. J. Int. Aff.* 63, 149–164. doi: 10.1080/10357710902895103

Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M., Belanger, J. J., et al. (2017). The road to extremism: field and experimental evidence that significance loss-induced need for closure fosters radicalization. *J. Pers. Soc. Psychol.* 114, 270–285. doi: 10.1037/pspi0000111

Whitehouse, H., and Lanman, J. A. (2014). The ties that bind us: ritual, fusion, and identification. *Curr. Anthropol.* 55, 674–695. doi: 10.1086/678698

Whitlark, J. (2011). "Kingdom of god: modern interpretations" in *The encyclopedia of Christian civilization*. ed. G. T. Kurian (Hoboken, NJ: Blackwell Publishing).

Wiktorowicz, Q. (2005). *Radical Islam rising: Muslim extremism in the west*. Maryland: Rowman & Littlefield Publishers, Inc.

Williamson, W. P. (2010). Book reviews: religious fundamentalism: global, local and personal by Peter Herriot. *J. Sci. Study Relig.* 49, 579–581. doi: 10.1111/j.1468-5906.2010.01530_8.x

Ysseldyk, R., Matheson, K., and Anisman, H. (2010). Religiosity as identity: toward an understanding of religion from a social identity perspective. *Personal. Soc. Psychol. Rev.* 14, 60–71. doi: 10.1177/1088868309349693

Zarkasyi, H. F. (2008). The rise of Islamic religious-political movements in Indonesia: the background, present situation and future. *J. Indones. Islam* 02, 336–378. doi: 10.15642/JIIS.2008.2.2.336-378

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 Wibisono, Louis and Jetten. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

HYPOTHESIS AND THEORY
published: 18 February 2020
doi: 10.3389/fpsyg.2020.00205

Radicalization Through the Lens of Situated Affectivity

Hina Haq, Saad Shaheed and Achim Stephan*

Institute of Cognitive Science, Osnabrück University, Osnabrück, Germany

Affective bonding to radical organizations is one of the most prominent features of a recruit's personality. To better understand how affective bonding is established during the recruitment of youth for radicalization and how it is maintained afterward, it seems promising to adopt new insights and developments from the field of situated cognition and affectivity, particularly the concepts of Affective Scaffolding, Mind Invasion, and Self-Stimulatory Loops of Affectivity (SSLA). The three notions highlight both the intended structuring of the affective bonding by the recruiting organizations and the immersive influence these settings have on the individuals. We will study the affective bonding between an individual and a radical group from two perspectives: first, from an organizational perspective, and second from a personal perspective. The first aims at understanding how extremist organizations "invade the mind" of young people, by providing carefully designed affective scaffolding: (a) during the recruitment process and (b) while being a full member of the organization. The second aims at identifying some of the affective loops which individuals who have joined the radical organization enter.

Keywords: radicalization, emotions, situated affectivity, mind invasion, affective scaffolding

OPEN ACCESS

Edited by:
Jocelyn J. Bélanger,
New York University Abu Dhabi,
United Arab Emirates

Reviewed by:
Ana-Maria Bliuc,
Western Sydney University, Australia
Bjorn Wansink,
Utrecht University, Netherlands

****Correspondence:***
Hina Haq
hhaq@uni-osnabrueck.de

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *09 July 2019*
Accepted: *29 January 2020*
Published: *18 February 2020*

Citation:
Haq H, Shaheed S and Stephan A (2020) Radicalization Through the Lens of Situated Affectivity. Front. Psychol. 11:205. doi: 10.3389/fpsyg.2020.00205

INTRODUCTION

On April 21, 2019, people in Sri Lanka suffered from terror attacks that resulted in the death of 253 people (Safi, 2019). This incident took place after the terrorist group who call themselves the Islamic State of Iraq and Syria (ISIS) lost all its territory in Syria and Iraq, as claimed by the ground forces in March 2019 (Callimachi, 2019). However, ISIS claims responsibility for the Sri Lanka attacks with some Sri Lankan officials initially terming it ISIS's retaliation of the terrorist attack on the Christchurch Mosques in New Zealand on March 15, 2019 (Miglani and Pal, 2019). Sri Lankan Defense Minister Ruwan Wijewardene stated that most of the terrorists involved in these attacks were well-educated people who stem from middle- or upper-middle-class families, and were financially relatively independent. This statement might speak against what many people commonly believe about suicide bombers, as it seems hard to think of a terrorist as a well-educated and financially stable person with apparently everything to live for, who is deciding to blow themselves up in a suicide attack and kill others (Bergen, 2019).

There is no simple explanation to why and how a person is radicalized to become a terrorist and suicide bomber. Radicalization is a multi-factor, multi-pathway and complex process (e.g., Taylor and Horgan, 2006; McCauley and Moskalenko, 2008; Sageman, 2008; Schmid, 2013; Hafez and Mullins, 2015). Since 2001, many models and metaphors describing the process of radicalization have been presented by various researchers in (social) psychology, mostly interpreting it as a progression over a period of time and involving different factors and dynamics in individual (lone-actor) and collective settings. Some milestones in the literature on models of radicalization come

from Moghaddam (2005), Wiktorowicz (2005), and Silber and Bhatt (2007) who offer different stage models about how an individual becomes radical and eventually violent; Kruglanski (2006) highlights the role of ideology and the "Quest for Significance" (Kruglanski et al., 2009, 2014) and proposes the so-called 3N approach (need, narrative, and network) to understand what drives individuals to radicalization and violent extremism (Webber and Kruglanski, 2017). Furthermore, experts have acknowledged a variety of factors that make people vulnerable toward radicalization as individuals (micro-level), as groups (meso-level) and as societies (macro-level) (e.g., Wiktorowicz, 2005; Sageman, 2008; Kruglanski and Fishman, 2009; Schmid, 2013; Malthaner and Waldmann, 2014). Some of the factors include uncertainty in life (Hogg and Adelman, 2013; Hogg et al., 2013), collective identity problems (Moghaddam, 2012), experiencing alienation (Horgan, 2008; Wilner and Dubouloz, 2010), and grievances stemming from discrimination, stigmatization, rejection, relative deprivation, and humiliation (Moghaddam, 2005; Bindner, 2018). They are usually combined with moral outrage and feelings of revenge (e.g., McCauley and Moskalenko, 2008; Sageman, 2008; Schmid, 2013). Radical groups make use of the factors mentioned above to their advantage in order to influence their followers to build an affective bond with the group and its ideology, which results in mobilizing the recruits to act extremely and violently.

In sociology, Social Movement Theory (SMT) is an important theoretical framework which is applied to explain radicalization. SMT focuses on broader dynamics and processes of political mobilization leading to radicalization, in which individuals and groups are driven by political goals and rational agents (e.g., Della Porta, 1992; Wiktorowicz, 2005; Dalgaard-Nielsen, 2008; van Stekelenburg and Klandermans, 2010; Beck and Schoon, 2018). Social movement theory, in the context of protest events and campaigns, explain the roles of emotions, which can be generally applied to radicalization and provides an important contribution to understanding emotions in radicalization. Organizations and social movements specifically arouse and use multiple emotions in social networks that play a key role in enabling or inhibiting mobilization for their causes and also sustain a commitment to a cause (e.g., Lofland and Stark, 1965; Khawaja, 1993; Nepstad, 2004; Benski, 2010; Jasper and Owens, 2014; Van Ness and Summers-Effler, 2018).

We agree with several of the aforementioned approaches that emotions play an important role in radicalization. In particular, they are key elements in establishing a dynamic affective bonding between a radical group and its followers. It is our goal to better understand how radical groups use a variety of external tools to attract new members, retain them, and direct them to violent actions. To do so we will apply the framework of situated cognition and affectivity (see next section) which is a recent development in cognitive science. In contrast to older (internal) approaches to the human mind it explicitly comprises environmental factors as key components of (cognitive and) affective processes. When we focus on the vital role affectivity plays in the process of radicalization, we do this without downplaying other factors that drive recruitments, such as the psychological, social and political factors mentioned above. But we take it as desideratum to investigate particularly the emotional bond between radicalized persons and the groups they belong to, to investigate how such affective bonds between recruits and radical organizations develop and how this supports radicalization, which might prove to be helpful for developing counter radicalization measures.[1] Our analysis will help to understand both how radical groups use emotions to influence people and what kind of emotional vulnerability and receptivity makes a person ready to join a radical group and stay committed to it. In that sense, the affective bonds that radical groups develop with their recruits can be accounted for from two main perspectives, that is, an organizational perspective, and a personal perspective.

From the *organizational* perspective, radical organizations structure themselves to provide affective and social platforms for young individuals to connect with the organization and its ideology. Such organizations provide their recruits with a well-developed structure and system, which facilitate them to generate positive feelings such as strength, trust, pride, and belongingness within the group, and to generate negative feelings such as hate, anger, and disgust toward an outgroup, to mention the important ones.

From the *personal* perspective, a recruit joining the organization develops an affective bonding with the organization itself. The more that the recruits are exposed to the ideology and objectives of the radical group, and the more they start relating to it, the more their emotions develop in line with the goals of the group. The same holds true for training rituals and other activities within an organization, which gives a further boost to the affective bonding. This bond keeps the recruit in a specific and long-lasting affective state, which leads them toward a deeper involvement in that organization.

In contrast to already established views that mainly address negative emotions such as humiliation, fear, hate, anger, guilt, contempt, and disgust (e.g., Lindner, 2001; Bar-Tal et al., 2007; Wright-Neville and Smith, 2009; Feddes et al., 2012; Baele et al., 2014; Matsumoto et al., 2015; Baele, 2017; van Stekelenburg, 2017), we would like to also stress the importance of positive emotions, which in combination with negative emotions play a vital role in paving the path to radicalization. A radical organization in its ideology provides its followers with various positive emotions such as hope for a better future, pride of belonging to a certain group or religion, feeling of power as being member of a strong and feared group, and love for the radical ideology and those who follow it, fostering a sense of brotherhood among the members of the group. These positive emotions serve as strong pull-factors in recruitment. The manipulation of emotions in different combinations, including both the positive and the negative, by radical groups direct the thoughts and actions of followers and recruits. Therefore, love for the radical group and hate for the outgroup goes side by side (e.g., Brewer, 1999). If we look at the case studies of radicalized individuals,

[1] This move finds backing also by research in industrial-organizational psychology, where researchers have found that affective commitment, which is the strongest type of bonding, supports an enduring attachment to a company (Allen and Meyer, 1990; Mercurio, 2015).

positive emotions are also at work and may even occur before the rise of negative emotions which lead toward violent actions.

For example, a former fighter for ISIS named Younes (Michael) Delefortrie came back to Belgium from Syria. According to a report on a series of interviews with radicalized individuals by Speckhard et al. (2018), Delefortrie was raised by an alcoholic and violent mother. He was introduced to Islam by second-generation Moroccans settled in Belgium, having strong family ties. Delefortrie felt it appealing that the religion bans alcohol. He later joined a radical Salafi organization named "Sharia for Belgium," where he felt encouraged to undertake complete Salafi lifestyle, including that of Jihad. Eventually he traveled to Syria in 2013 to practice Islam. However, he returned to Belgium after spending 5 weeks in Syria to escape battleground and reunite with his wife. After the return, he felt disillusioned with his troubled life in Belgium and expressed his desire to return to Syria in his interview with the authors. Delefortrie idealized the ISIS "Caliphate" and hoped for it to extend to Brussels (Yayla and Speckhard, 2016; Speckhard et al., 2018). His case illustrates how radical groups are successful in instilling hope, pride and ingroup love in their followers in the first place, and creating a strong affective bonding with their recruits by providing affective support which was not available in other societies.

Before we start analyzing the recruitment and retention strategies of radical groups, mainly the ISIS and the Taliban, and how members bond to them, we introduce the theoretical framework of situated affectivity, in particular the notions of affective scaffolding, mind invasion, and self-stimulatory loops of affectivity. These three notions help us to understand how environmental structures effect emotions in general, and, in particular, they highlight the affective settings intended by recruiting organizations, and also the immersive influence these settings have on the individuals.

SITUATED AFFECTIVITY AND AFFECTIVE SCAFFOLDING

In order to understand the influence of environmental structures on individuals and their reciprocal influence, philosophical accounts which are extrapolations of so-called "situated" cognition (Walter, 2014) offer a promising framework. The central thesis of situated cognition is that cognitive processing is not solely an intracranial affair, but that it can be, and often is, supported by extracranial "tools" which ease and simplify cognitive tasks. These tools can be, for example, the morphological and physiological characteristics of our body (embodied cognition), but also our embodied interactions with an appropriately structured natural, technological or social environment (embedded or extended cognition). During recent years, researchers have expanded the debate about situated cognition to the affective domain to investigate to what extent extrabodily factors contribute to our affective life—though not in the trivial sense that most of our emotions are triggered by environmental stimuli in a certain context (e.g., Griffiths and Scarantino, 2009; Colombetti, 2014; Krueger, 2014; Stephan et al., 2014; Colombetti and Krueger, 2015; Colombetti and Roberts, 2015; Wilutzky, 2015; Slaby, 2016).

The idea of environmental scaffolding,[2] which can be traced back to the work of Lev Vygotsky, was reintroduced by Andy Clark to comprise as scaffolds all sorts of environmental structures that can be used for enabling or facilitating certain cognitive tasks (Clark, 1997). In this broad sense, it also applies to various affective processes. We will principally distinguish two different, albeit interconnected, types of affective scaffolding—ways in which our affective life is essentially a matter of more or less intimate dependencies and interdependencies between us and our natural, technological, and social environment. The first type are so-called *user-resource interactions*; they have been in the center of attention in the early contributions to situated affectivity, the second type is so-called *mind invasion* (cf. Stephan and Walter, 2020, §§ 3 and 4), which entered philosophy of emotions rather recently, whereas social psychologists studied such phenomena under different terminology before (e.g., Parkinson, 1995).

Among the *user-resource interactions*, we distinguish cases:

(a) with *unidirectional material tools for emoting*, which are used when we exploit environmental resources in order to regulate our affective life (e.g., visit places that mean something to us, choose music, furnish our apartment)—a strong and relatively permanent example would be the decision to live in a caliphate,
(b) with *strongly coupled and integrated material tools for emoting*, which are used to enact some kind of self-stimulating activity that has been set in place and maintained over time in order to move into a certain emotional process (e.g., a deeply mourning musician whose playing sets up a mutually constraining cycle of affective responding and expression)—many activities taken by members of radical groups afford such kinds of self-stimulatory affective loops (e.g., listening to nasheeds, a form of vocal music that is used to enhance hate toward an outgroup, immersing in social media supporting extreme ideology, engaging in training rituals and learning the use of weapons),
(c) with *transiently coupled social tools for emoting*, which are used when actors choose other people as "tools" for living out or regulating their emotions (e.g., aggressors who provoke others to enter into a fight, confessors who aim at relieving their sorrows through interaction with a priest)—the life of radicals offers several occasions of such a type (e.g., taking conquered women as sex slaves, giving young

[2] For those already familiar with the framework of situated cognition and affectivity, it might suffice to say that we use the term affective scaffolding instead of "embedded" and "extended affectivity," the distinction of which we no longer take to be promising in empirical contexts (cf. Stephan, 2018; Stephan and Walter, 2020). Our move is also supported by Kim Sterelny's claim that the most plausible cases for the extended mind hypothesis are merely "limiting special cases of scaffolded minds," thus depriving the extended mind paradigm of its heuristic potential, since it "obscures rather than highlights both the continuities and the differences amongst external resources and their contributions to cognitive competence" (Sterelny, 2010, p. 473).

recruits an outlet for aggressive impulses by allowing them to punish prisoners),

(d) *affectivity instantiated by strongly coupled social systems*, when they enact certain types of emotional dynamics over and over again (e.g., old couples enacting cycles of mutual soothing and loving, or cycles of one partner sulking, the other trying to reconcile)—strong social couplings develop both internally among members of radical groups and externally via social media between members of radical groups and followers abroad,

(e) with *coupled social tools for changing the emotional mind-set*, where someone is intentionally looking for another person as a "tool" for modifying her life and mood in order to transform her affective response repertoire *in general* (e.g., seeking a psychotherapist to work with)—when, for example, someone explicitly volunteers a radical group to get orientation for changing his or her mind and life.

The various types of user-resource interactions, which in the case of radicalization support the affective bonding between a group and its members, present corresponding instantiations of the personal perspective. Often it is the group that provides a variety of possibilities for looping effects that enhance the affective bonding of members to their groups through strong social couplings. In that sense the groups perform various sorts of mind invasion.

Among the cases of *mind invasion*, we distinguish[3]:

(f) *affective enculturation through strongly coupled social systems*, which affects all human being in early and later life spans with particular behavior styles, group norms and emotion regimes (e.g., in early childhood, peer groups, companies)—this holds true for everybody who joins a radical group, and particularly for their children,

(g) *affective transformation through social media* by providing possibilities to interact and keep in touch over long distances, but also by spreading hate speeches with all their consequences, or allowing criminal exchanges in the darknet—social media play an important role in the recruitment of new members from abroad, and in directing specific activities including the building of bombs; they also offer lone actors facilities to develop dynamic relationships with other radicals,

(h) *tools for manipulating people*, which are deliberately launched in order to diachronically modify the attitudes and the emotional set up of the members of a target group (e.g., advertising, political campaigns)—recruitment and retainment of people for extremist groups.

In particular, type (h), which corresponds to the organizational perspective, will be relevant for our analysis of the affective scaffolds provided by radical groups. Whereas some very strong instantiations of (h) might result in what is also known as brain washing, not all types of mind invasion are such cases, not even all (h)-cases. As long as the human faculty of critical thinking and distancing from certain positions is not endangered or undermined, we should not treat all kinds of mind invasion as kinds of brain washing. Even if some activities of radical groups can be treated as cases of brain washing, it does not follow that all kinds of mind invasion they provide are instantiations of brain washing; in many interactions with the group we can find volunteering aspects on the side of the members.

We now introduce the notion of mind invasion in more detail by first following Slaby, who coined the term, and then use this perspective to present what extremist groups provide to invade the mind of recruits and members. [4]Hereafter, we offer several tools that are used as affective scaffolds by the extremist groups to successfully invade the mind of their targets.

MIND INVASION IN RADICALIZATION

Slaby (2016) illustrates the concept of "Mind Invasion" with the example of an intern at her new workplace. She has to learn a lot about the activities in her new work environment, how the colleagues interact on different work-related hierarchies, and how they address each other. She learns how showing certain characteristics in the workplace benefits her, and how exhibiting other characteristics does not. She eventually habituates herself to become a professional in her field and progresses to become a full-time employee where she adheres to the workplace culture in a more natural manner. Something which might have felt alien when she first joined the organization now feels natural to her: for example, the long hours at work, continually staying online, answering e-mails even after office hours, feeling anxiety of falling behind on work-related communications even outside the office hours, the ways in which one is expected to show enthusiasm and eagerness for the work, etc. The organization, as Slaby terms it, "hacks the mind" of the new employee, to the extent that she will come to feel as a part of the organization. Her habits and ambitions merge with, and change, according to the organization's objectives[5].

According to Slaby (2016), organizations structure themselves in a way that influences the affective setup of the individuals working within it; some organizations do this intentionally, while others create this affective environment accidentally. Humans who are inclined to think that they are in pretty good control of their affective life can, therefore, easily underestimate the power of the environment on their emotional repertoire. As it becomes evident from the examples Slaby presents, individuals working

[3]Feature (g) *affective transformation through social media* is not independent from features (f) and (h); it can be part of *affective enculturation* and it can be used for *manipulating people*; we introduce it here as a separate feature for analytical reasons.

[4]For those coming from situated affectivity the concept of mind invasion is useful, because it shifts the attention away from the user/resource model and it focuses instead on how the user can be "used" (or "invaded") by the resource (or scaffold). On the other hand, scholars coming from sociology or psychology (who therefore are familiar with concepts such as enculturation) benefit from mind invasion, because this concept correctly frames the environment as something made of scaffolds and niches.

[5]Although what Slaby introduces here as mind invasion, is often referred to as "company socialization" in industrial-organizational psychology (Cooper-Thomas and Anderson, 2006), the term "company socialization" could not easily be extrapolated to cover cases of recruitment and retainment as organized by radical groups.

within an organizational setup can have their subjectivity hacked through the invasion of their minds by the structuring of the organization.

For the context of radicalization, it is important to note that environmental structures can be shaped by radical organizations (as tools for mind invasion), to gradually transform the attitudes and the emotional responses of a target group. Accordingly, via social media radical groups attract followers and influence the mindset of individuals [by (g)], to not only join the group but also to be drawn to their more extreme and radical ideas. In that sense, mind invasion facilitates what is described as Identity Fusion (Swann et al., 2009; Paredes et al., 2018), the phenomenon of an individual feeling "fused" or "one" with a group, and it plays a major role in the structuring of recruitment and retention strategies of radical groups. One of such recruitment strategies is called *the funnel* (Gerwehr and Daly, 2006). As the term indicates, potential recruits are funneled through a carefully structured transformative process (see (e) and (h) above). They emerge from the process as dedicated members of the radical group. This carefully structured and intended process consists of fusing the identity (Swann et al., 2009) of the recruit with the radical group, hazing rituals, commitment to the radical ideology, and support for achieving the desired goals through violence. These processes result in transforming attitudes and radical polarization in those who successfully follow the whole process along the lines as defined by the radical groups. Not all potential recruits follow the whole process. Even if they drop out before they complete the entire process, the minds of the drop-out recruits may still have been invaded to the extent that these recruits will provide benefits to the radical group through, for example, endorsing a positive image of the group among other potential recruits and even navigate others to enter the process of radicalization [according to (f)].

Mind invasion by radical groups is not limited to attract and retain new members. Radical groups spread their ideology and shape vulnerable individuals to adopt the extremist world-view in many ways. For example, in some areas of Pakistan and Afghanistan, the radical group who calls itself Taliban has access to influence people directly via giving religious sermons or running the religious educational institutes, more commonly called Madrassah (pl. Madaris). This access gives recruiters a platform to directly invade minds during early phases of enculturation (see f) with the extreme ideology and narrative which is based on hatred and anger toward the outgroup. One instance of spreading violence-based ideology was the use of an elementary Urdu language book, which was covertly being used as a part of the syllabus in some local (and low-income) schools in Pakistan. These books were also meant to be sent to Madaris and schools in the north-western region of Pakistan which had some radical ideological presence. The book was published between 2005 and 2010. Unlike the English alphabet books where the letter A is represented by an apple and B by a ball, the content of the elementary Urdu alphabets book (being taught to very young children), however, are all about implanting radical jihadi imagery in the young minds. For example, the word and image used to explain the Urdu alphabet ب "*bey,*" consists of an illustration of a Kalashnikov and the word "*bandooq*" (gun). For the letter ٹ "*tay,*" the word used is "*takrao*" (impact) and an illustration of a plane hitting the Twin Towers in New York is shown. For the letter ج "*jeem*," an image of a white jihadi flag and the word "jihad" is used. For the letter خ "*khay,*" an image of a hunting knife (with blood dripping from it) and the word "*khanjar*" (knife) is used. For the letter ح "*hey,*" an image of a woman fully covered in black cloth and the word "*hijab*" is used. For the letter ذ "*zey,*" the word used is "*zunoob*" (sin) and the illustration is that of a bonfire made from a pile containing a TV set, a satellite dish, a board game, and a guitar (Paracha, 2011).

Education and curricula based on extreme ideology aim to expose and normalize children to categorical thinking and violence, and results in an us-versus-them mindset. Through repeated lessons based on the extreme syllabus taught in some of the Madaris, the Taliban intentionally immerse children into an environment that teaches them hatred, anger, and disgust toward the outgroup (those who do not follow their interpretation of religion, and are perceived as threat to the sanctity of the religion). In these environments, a child is introduced to the alphabet letter ح "*hey,*" an image of a woman fully covered in black cloth and the word "*hijab*" along with an illustration of a woman covered completely in black cloths. For the child, the only acceptable way for a woman is when she dressed in a hijab, and any other form of dressing is not acceptable. Along with this kind of radical educational material, the child is also provided with the explanation of how it is sinful for a woman to not properly cover herself, and that she deserves to be punished if she refuses to wear a hijab. Through the Taliban's interpretation of Islamic law, a woman showing her face to a man who is not related to her is the source of corruption (Gohari, 2000). In a similar manner, the burning image of a guitar in fire is introduced to the child with the word "*zunoob*" (sin). The child is taught that it is not only bad to listen to or play guitar (or any other kind of music), but rather that the music is a forbidden and punishable *sin*. This kind of early-age introduction to the radical concepts create a different kind of reality within the minds of children undergoing education in radical organizations. It implies that forcing someone to wear hijab or punishing someone for listening to or playing music is the only acceptable way to live a life. This early enculturation changes the way a child looks at the world.

The same holds for the concept of Jihad. The *radical milieu* (Malthaner and Waldmann, 2014) makes it natural for the child to adopt extremist views. When the child grows up, he or she might not join a radical group, but the radical group has already invaded the child's mind to the extent that he or she accepts and/or supports the extremist ideology. It can also be seen in the children getting education in ISIS territories (e.g., Olidort, 2016). Children who are exposed to this kind of education might not yet be recruits of the radical group, but their lifestyles and ambitions are already developing in alignment with the parameters of the radical group's ideology (e.g., Al Bayan Center, 2016; Anderson, 2016; NCTV and AIVD, 2017), which raises additional problems for the countries their parents come from, if they return with their mothers or families and join schools in Western countries.

Different radical groups use different strategies to shape vulnerable individuals, depending on their organizational structure and aims. Where the Taliban mainly use their easy

access to the religious schools and mosques as a tool of mind invasion, ISIS uses more diverse environmental tools to invade the minds of its followers. One such strategy of ISIS is using different social platforms to create an environment which helps them to spread their ideology [see (g) and (h)]. They *invade the minds* of young people by showing them a glorified and adventurous face of ISIS and by repeatedly providing its followers glimpses of its ideology through various means, including its mass media propaganda (e.g., Winter, 2015b). The use of social media, nasheeds, and video games, for example, as tools of mind invasion, over time facilitates the transfer of followers from a virtual caliphate to an active recruit either as fighter in ISIS claimed territories or as "lone actor" fighters in other countries. For example, one Birmingham-born ISIS member compared his so-called Jihad in Syria with a famous first-person shooter video game, "Call of Duty"by tweeting; "*you can sit at home and play call of duty or you can come here and respond to the real call of duty. The choice is yours*" (Kang, 2014). A British foreign fighter of ISIS tweeted that "*It's actually quite fun. It's really really fun. It's better than that game Call of Duty. It's like that but it's in 3D where everything is happening in front of you*" (Klausen, 2015).

These tweets with the references of famous video games are reinforced by statements from people who have experienced life under ISIS and describe how adventurous their life seems to be. ISIS uses video games as an *external tool* to brand itself as being a fun and adventurous organization to join. Through social media postings like these, ISIS members portray the image of the radical group as a powerful and "*cool*" organization (Vale, 2018). To a young individual looking for orientation, this might look like living the life of a hero participating in a real-life adventure and saving the oppressed from infidels. This also provides a chance to follow an ideology which can transform their prosaic life into a cosmic struggle between good and evil (Kang, 2014). Mind invasion works because it distracts with one thing (for instance, as being a *hero*) while accomplishing another (that is guiding toward violent radicalization). In addition, ISIS strategically approached young people by providing them a platform to redress the grievances they hold against an outgroup, as well as play their part in building an Islamic community. It provided an opportunity to become a hero and a chance to achieve glory while fighting in a real-life *game*. With *mind-invading* strategies like these (e.g., Lakomy, 2019), potential recruits willingly go through the change because of the excitement to be actively part of the action and play the real-time "Call of Duty." At some point, radicalizable individuals are attracted to radical groups because of the promise of adventure (e.g., Speckhard and Ahkmedova, 2006; Vale, 2018), but the structure of the organization aligns the recruit's ambitions with the group's ideology later in the radicalization process.

While training, new recruits are exposed to literature and videos that paint a vivid picture of Muslim suffering and humiliation by the hands of infidels [see (f)]. The perceived narrative of humiliation by the outgroup (infidels) aggregates the emotions of anger and contempt in recruits, and shames them into taking revenge for their Muslim brothers (Hafez and Mullins, 2015).

Another strategy which ISIS uses to shape the minds of its current and potential recruits is by evoking the sense of competition (Vale, 2018). For instance, ISIS regularly publishes a segment under the title of "Hasaad ul Ajnaad (Harvest of the Soldiers)" in its magazines and videos (e.g., Bilger, 2014; Cafarella et al., 2019). Harvest of the Soldiers informs the ISIS followers of the number of successful attacks and operations conducted. These details show the damages and losses they have caused to the outgroup. On the one hand, this propaganda is intended to keep the morale of its followers high by showing how powerful ISIS is. On the other hand, it increases the sense of competition among the recruits in different areas which were controlled by ISIS. By simply publishing the numbers of attacks, ISIS triggers different emotions, like power and pride, which aim at motivating more violent attacks to achieve higher ranks in the within group competition.

Another example of reaching out to followers [by (g)] is when ISIS captured a Jordanian pilot on December 24, 2014, and ISIS started a campaign on Twitter to decide how to punish this pilot. The pilot was burned alive and run over by a bulldozer in response to an online competition which allowed members, associates, and even passive followers of ISIS to suggest different ways in which the pilot could be executed. Thousands of people used the Arabic Twitter hashtags to suggest that Moaz (the pilot) be cut into pieces by a chainsaw, fed to crocodiles, impaled, set on fire, and even being mutilated using acupuncture needles dipped in acid before being beheaded and having the head sent back to Jordan. A second hashtag carried even more ruthless execution ideas. It was re-tweeted more than 11,000 times (Richards, 2015; The Carter Center, 2015).

This latter example shows us how ISIS strategically used social media to attract thousands of minds from around the world to participate in a ruthless crime (e.g., Blaker, 2015; Alava et al., 2017). Not all the people who participated in it were radicalized or members of ISIS. However, ISIS appealed to the minds of its followers and recruits by turning a brutal act into an online competition and people participated in dehumanizing another human being without even completely considering what they were doing. The mind invasion performed by the radical group was not limited to their active recruits but also aimed at their sympathizers.

SPECIFIC TOOLS PROVIDED FOR MIND INVASION

As indicated in the preceding section, radical organizations use multiple recruitment mechanisms: potential members are sometimes radicalized individually, and sometimes in groups. In this section, we highlight three important ways in which ISIS uses ideological appeals, social appeals, and material appeals as affective scaffolds to invade and radicalize vulnerable minds.

On an *ideological* level, radical organizations provide their followers with a strong narrative appealing to the vulnerabilities of the potential recruits (Macnair, 2018; Macnair and Frank, 2018). The radical organization almost always use narratives as affective scaffolds to attract its followers. In places where there is a sense of deprivation, radical organizations almost always present and propagate the narrative of religion in their lands

and among themselves, mixing it with the political narrative of their own. The narrative which radical organizations present is one that is familiar and extremely trusted among the followers because of its sacred value derived from ancient religious roots (Atran and Axelrod, 2008; Ginges et al., 2009). Therefore, many are receptive to this narrative and are also easily manipulated by it (Boutz et al., 2019).

In the case of ISIS, once it declared itself a "caliphate" in June 2014, it attracted many followers, not only from Iraq and Syria, but also from abroad (e.g., Soufan Group, 2015). ISIS focused on increasing its influence by gaining territory and by calling on Muslims to perform "Hijrah" (migration) to join their newly established caliphate, where sharia law would be practiced (Schmid, 2015). The concept of "Hijrah" is sacred for many Muslims because of its religious significance and history. Therefore, the invitation of calling the Muslims to perform Hijrah held considerable appeal and had aroused the spiritual feelings in not only the followers of ISIS but also those who wished to live under the Islamic law and saw Hijrah to ISIS "caliphate" as a religious obligation (Bin Sudiman, 2017). According to Hogg and Adelman (2013), radical groups provide the vulnerable and potential recruits with a particular identity and give the recruits meaning to their lives. Radical groups lessen the uncertainty of potential followers by telling them how they would feel and behave within the group, and toward the outgroup. The group also instructs on what they should think and how they should retaliate if the ideology becomes threatened (Hogg and Adelman, 2013; Ugarriza and Craig, 2013).

Bloom and Horgan (2019) illustrate instances in which terrorist organizations, specifically those following *jihadi* narratives, structure themselves to support the culture of martyrdom. Martyrdom is a revered concept among many Muslims in general because it implies the sacrifice of human life for the sake of protection of the religion as a sacred duty and offers honor, opportunities to regain significance, fame and respect (e.g., Bloom, 2005; Güss et al., 2007; Kruglanski et al., 2009; Bélanger et al., 2014; Speckhard and Shajkovci, 2019). In the case of violent jihadi radicals, it explains the motivation of becoming a fighter or volunteering for suicide bombings. The sanctity of martyrdom shows that material incentives do not necessarily matter for all its recruits. For some, the narrative of the highest rank in heaven could be the only spiritual goal. As Bloom and Horgan (2019) report, for younger male suicide bombers, the incentive is of virgins in heaven, along with respect in this world. For younger girls, the incentives based on the jihadi narrative is that they will receive more beauty and will have seventy of their closest relatives join them in heaven, thus allowing the feeling of helping their loved ones and family in the afterlife.

In the communities where there is chaos because of war or violence, radical groups can provide potential recruits with order and identity. Taking control of the caliphate by ISIS provides its potential recruits with an environment (territory) which facilitates and nurtures the recruits' religious and spiritual feelings. The new caliphate claim provides its followers with the hope of getting their existential needs answered (e.g., Cottee and Hayward, 2011; McBride, 2011). The caliphate allows a unity of Muslims under the sharia law and the protection of Islam against the threat of the outgroup. It should be noted that the calls to join ISIS through its propaganda were not *only* the narrative of hate and fight against the outgroup, but also the promise of living in a land that will be based on (their interpretation of) the Islamic principles. The organization provides its followers with a trusted and familiar picture of the law set up in their "claimed" lands. The narrative also paints the picture that during the rule of ISIS, individuals would be able to design their Islamic lifestyle, not only on the individual level but also on a collective level (Winter, 2015a).

We now move on to explain how affective scaffolding is established and used to invade minds on the *social* level. Radicalization requires a feeling of familiarity, trust, and commitment between the radical organization and its recruits, as it supports clear communication and emotional shaping. The most secure source for recruitment of radical members is from their own families, friends, and like-minded activists within already existing setups (Hafez, 2016), also termed as "Kinship Recruitment." According to Hafez, kinship recruitment links individuals who share similar beliefs, which helps in creating an immediate collective identity. Kinship recruitment provides the familiar and trusted atmosphere for both the recruiter and the potential-recruit, in which both can attain their desired affective states [see (b) and (d)]. Kinship recruitment also leads to the formation of a bloc within a recruited group, known as bloc recruitment, which refers to the recruitment of multiple individuals from the same family or group. The bloc serves another advantage to the radical organization because it makes it easier for individuals within the bloc to accept radical ideas. We stress again that the affectivity in radicalization is not necessarily based *only* on violent emotions. The affective scaffolds blocs and groups provide for individuals support the feelings of religious pietism, brotherhood, and belongingness. Radical groups such as ISIS and the Taliban, infuse their group's ideologies with their interpretation of religion (e.g., Al-Ansari and Hasan, 2018). Such ideologies are easily accepted by their followers and recruits. Any threat toward the radical group is then also considered a threat toward the sanctity of the religion. Therefore, protection of the collective identity against the threat of an outgroup becomes a salient feature of the group and is justified (e.g., Paredes et al., 2018).

On the *material* level, the recruits are provided with incentives for playing their part for the organization. After the "caliphate" claim, the ISIS leader in June 2014, called out to Muslim professionals such as doctors, engineers, and people with military and administrative expertise to join ISIS (Site Intelligence Group, 2014). Some joined ISIS in response to this call, with the intention of helping Muslims in need there. Others did not join because of the ideology, but rather because of job opportunities (Harissi, 2015). According to Anderson (2016), ISIS provides its fighters with salaries and other incentives, such as supplies, gasoline, and women to marry, which helps the organization to retain its recruits and boost their morale. Children are offered gifts and toys as compensation for their loyalty to the group. There were even reports by locals of earning a salary as high as $200 per month for child recruits, which offers the family

the opportunity at a better quality of life in the war and violence-torn country. These monetary incentives were usually distributed during events where there were booths displaying and distributing ISIS propaganda (Anderson, 2016).

Bloom and Horgan (2019) illustrate other strategies that utilize incentives to radicalize and recruit. One strategy used by ISIS is to make membership for children look desirable and build an atmosphere of competition for member status. Based on the competition, the children were presented with new uniforms and their pictures taken for the propaganda. For adult recruits in ISIS, women were used as a commodity. Women who pledge their allegiance to ISIS are used as potential wives for local and foreign fighters, the purpose of which was to recruit, reward and retain the fighters. Women who were captured and did not pledge their allegiance to ISIS are used as sex slaves, and are considered to be "spoils of war." These incentives serve as scaffolds for the recruits to voluntarily join the radical ideology.

The above examples illustrate how affective bonds are deliberately created by the organization, and what particular scaffolds they use for being successful. Ideological, psychological, and material incentives and motivations created by ISIS, in our view, are directly aimed at building trust and familiarity among its followers, and at the same time providing a sense that the individuals are rewarded by the organization, thus forging a bond with its recruits and followers. In the next section, we analyze how the members of ISIS form and maintain loops of affectivity that support to keep themselves in their desired affective states within the organization, thereby focusing more on the personal perspective.

SELF-STIMULATORY LOOPS OF AFFECTIVITY IN RADICALIZATION

Self-stimulatory loops of affectivity (SSLA) refer to strong interactions between individuals and their resource [see (b) and (d)], which, when maintained over some time and place, evolve into a form of self-stimulatory activity. The idea of the self-stimulatory loop was coined by Clark (2008) with reference to cognitive tasks. Stronger types of affective individual-resource interactions have been discussed by Colombetti and Roberts (2015). Most examples discussed thus far in the literature relate, however, a user with some technical device as, for example, a musical instrument. It is important to see that strong couplings between users and resources do not only exist toward technical devices, but can also be established with other human beings, or—in the case of mind invasion—with devices, practices, etc., provided by a mind-invading group.

To see how self-stimulatory affective loops also contribute to the recruitment of new members to radical organizations, let us look at bloc recruitment. If some individuals of a particular family make a commitment to an ideology, it facilitates the commitment of other members of the same family to follow. The elements that are self-stimulating in the bloc are peer pressure within the bloc, group-thinking, the desire to maintain relationships, and feelings of guilt for staying behind (Hafez and Mullins, 2015).

When recruits join ISIS, they enter an atmosphere of specific emotions such of love and hope within the group; and hatred, anger, contempt, and disgust toward the outgroup. Within ISIS environment, the recruits (including women and children) are assigned specific roles (e.g., De Leede et al., 2017; Almohammad, 2018; Darden, 2019). The more effectively they perform their duties (e.g., executing prisoners), the more authority and power they can get, and the more empowered they feel. This SSLA pattern becomes reinforced and this loop of power results in deeper involvement of members within the organization.

Radical organizations also provide the platform which helps to keep the concerned emotions of its recruits within the SSLA. Habitual development of rituals, routines, and training also result in specific affective states for the recruits. According to the propaganda materials by ISIS, the routine of a fighter includes dedicating time to prayers, physical fitness, and activity, learning from religious texts, as well as learning combat and warfare techniques. This routine and training cycle keep the emotions of recruited fighters elevated throughout their attachment with the ISIS.

The "bridge-burning" practice, such as recruits burning their government-issued passports to signify loyalty and allegiance to ISIS, is also an instance of SSLA. This diminishes the chance of deserting the group (Hafez and Mullins, 2015). Another instance of bridge-burning, as reported by Hafez and Mullins (2015), is the camera-recorded declaration of the intention to launch an attack. By declaring allegiance to a group and intention of carrying out an act of violence, the recruits bind themselves to such an act and feelings associated with it. If a recruit backs off, he is considered a traitor and has to face humiliation among his comrades. Bridge-burning practices, therefore, keep the recruits in a specific SSLA and prevent recruits from entertaining any thoughts of leaving ISIS. Such practices and rituals also support the emotions that the recruits are all-in and prepared to do anything for the protection of ISIS.

ISIS and its leaders encourage isolation of its members from those who oppose the views of the organization and make an effort to deepening the commitment of their members to the organization. The leaders discourage their recruits to access the mass media of the "outgroup" as well, which, for its members, is the propaganda. The members have access to the materials provided solely by ISIS itself, which keeps certain affective states in a loop, such as anger, hate, and disgust [see (h)]. Web technologies provide a perfect platform for the members of ISIS to design their newsfeeds, not only as affective scaffolds but also as SSLA. The news shared by ISIS and their followers show the suffering of Muslims all over the world, creating further hate, anger, contempt, and disgust toward the outgroup. The more they follow such news, the more negative emotions they feel. ISIS uses their elevated negative emotions to help its recruits to plan more violent attacks against the outgroup. This material also motivates the recruits to become heroes of the religion (Hafez and Mullins, 2015).

Another resource provided by ISIS is the propaganda material published and aired from time to time, including its newsletters, videos, and audio recordings in the form of speeches of leaders and nasheeds (Islamic hymns). These evoke the hope of living in a caliphate and a desire to help those who are already living there. The propaganda glorifies martyrdom and is also focused on the dehumanization of the outgroup. An interesting aspect in this

propaganda is the use of numbers in the newsletters and videos, specifically the "Hasaad ul Ajnaad (Harvest of the Soldiers)" reports which indicate the attack metrics of ISIS, e.g., they tell which subgroup killed how many infidels (Bilger, 2014; Cafarella et al., 2019). This report not only serves as mind invasion but also as SSLA of competition, designed to motivate its followers, inspire them and keep the fear elevated among the outgroup.

For lone actor terrorists, SSLAs can also develop as they intentionally subscribe to virtual environments projecting hate, anger, and disgust toward an outgroup. Virtual environments, facilitated by virtual networking with other extremists in chat rooms, such as that of ISIS's "virtual caliphate" specifically in the Telegram social network website, can ultimately lead to mobilization of members toward radicalization (Bloom et al., 2019). We find similar patterns in right wing terrorism, where affectively structured virtual environments lead vulnerable minds toward developing loops of negative emotions, which eventually lead them toward violent actions, such as Tarrant's attack in New Zealand on March 15, 2019.

An example of Bangladeshi immigrant Roshonara Choudhry, from the report of Speckhard and Shajkovci (2018), shows how SSLA works in so called lone actors. She was a student at Kings College London. She came across the sermon of Anwar al Awlaki (Yemeni-American preacher and recruiter for Al-Qaeda) on internet [see (g)] and she started relating to Awlaki's radical ideas of individual Jihad and his anger against United States coalition's invasion of Iraq. She actively searched for his videos and started withdrawing from the "unbelievers" around her [see (e)]. She developed her own affective loop of hate against infidels and how western countries are discriminating Muslims. She even quit university on the claim that one of her school departments is wrongly supporting Israeli brutality against Palestine. After conducting research on which local parliamentarians voted for the Iraq war, she performed her "jihad" by stabbing Labor MP Stephen Timms in his office, twice. This example shows how a person developed her own SSLA. She related to the sermons of Awlaki urging revenge, hate and anger against so-called enemies. She on purpose started avoiding people around her to feed her loops of anger and hate in isolation to the extent that it led her to attempt murder. In this particular case, none of the radical organizations was involved, nor was she contacted by any terrorist organization or their members. In many other lone actor cases, however, radical groups are in contact with the actors, and use media as an environmental tool to spread their messages and manipulate vulnerable minds to act according to the group's ideology. They invade the minds to the extent that the person develops the desired affective loops own their own.

The careful manipulation of environmental tools by radical groups to generating customized SSLAs explain how recruits are retained in the group or are inclined toward the group's ideology, while maintaining the desired emotional state which helps them to form a strong affective bond with the group and its ideology.

CONCLUSION

Radicalization is a multi-factor process, and one of the most important of these factors is the affective aspect of radicalization. To understand radicalization, it is important to understand how radical groups or radical organizations manipulate affective aspects of human nature and convince their recruits to willingly commit brutal and violent acts of terrorism. This manipulation of human emotions is not restricted to negative emotions such as anger, disgust, but also includes positive emotions, including power, love, feelings of belongingness. During the process of radicalization, different emotions are addressed in a recruit at the same time; for instance, hate toward an outgroup and love for the ingroup fostering the feelings of belongingness and power within the radical group. Such emotions evolve with time and create a very complex emotional web. In this paper, we have tried to provide the first glimpse of how the framework of situated affectivity (especially the notions of affective scaffolding, mind invasion, and self-stimulatory loops of affectivity) can help us to understand the affective structuring of radicalization. The framework of situated affectivity highlights how radical groups provide affective scaffolding, work on the minds of their recruits, and help recruits to develop certain emotions, which deeply entrench individuals into the ideology of a radical group. The framework of situated affectivity provides a broader range of view on the affective aspects involved in radicalization. It also helps us to understand how radical groups create an environment around their potential recruits that determines who and what these potential recruits will be when they go through continuous, reciprocal, dynamical interactions with the radical groups and its affective environment. Detailing the affective processes give us an opportunity to target those environmental factors and tools which radical organizations are using to lure vulnerable minds toward the violent extremism, and helps in developing counter radicalization measures.

ETHICS STATEMENT

Written informed consent was not obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

AUTHOR CONTRIBUTIONS

All authors contributed to outline this contribution and were in charge of subsequent revisions. HH and SS wrote the manuscript, except the section "Situated affectivity and Affective Scaffolding," which was written by AS.

FUNDING

The article was supported by the DFG Research Training Group *Situated Cognition* (GRK 2185/1).

ACKNOWLEDGMENTS

The authors would like to thank the two reviewers for their very helpful and constructive feedback, and Karsten Müller and members of the Reading Club "Affectivity" of the Institute of Cognitive Science at Osnabrück University for their help.

REFERENCES

Al Bayan Center, (2016). *The Cubs of the Caliphate: How the Islamic State Attracts, Coerces and Indoctrinates Children to its Cause*. Baghdad: Al Bayan Center for Planning & Studies.

Al-Ansari, S., and Hasan, U. (2018). *Tackling Terror: A Response to Takfiri Terrorist Theology*. London: Quilliam International.

Alava, S., Frau-Meigs, D., Hassan, G., Hussein, H., and Wei, Y. (2017). *Youth and Violent Extremism on Social Media: Mapping the Research [UNESCO Report]*. Paris: UNESCO.

Allen, N. J., and Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *J. Occupat. Psychol.* 63, 1–18. doi: 10.1111/j.2044-8325.1990.tb00506.x

Almohammad, A. (2018). *ISIS Child Soldiers in Syria: The Structural and Predatory Recruitment, Enlistment, Pre-Training Indoctrination, Training, and Deployment ICCT Research Paper*. The Hague: International Center for Counter-Terrorism (ICCT).

Anderson, K. (2016). *Cubs of the Caliphate: The Systematic Recruitment, Training, and Use of Children in the Islamic State*. Herzliya: International Institute for Counter-Terrorism.

Atran, S., and Axelrod, R. (2008). Reframing sacred values. *Negot. J.* 24, 221–246. doi: 10.1111/j.1571-9979.2008.00182.x

Baele, S. J. (2017). Lone-Actor terrorists' emotions and cognition: an evaluation beyond stereotypes: lone-actor terrorists' emotions and cognition. *Polit. Psychol.* 38, 449–468. doi: 10.1111/pops.12365

Baele, S. J., Sterck, O. C., and Meur, E. (2014). Theorizing and measuring emotions in conflict: the case of the 2011 Palestinian Statehood Bid. *J. Conflict Resoluti.* 60, 718–747. doi: 10.1177/0022002714550083

Bar-Tal, D., Halperin, E., and de Rivera, J. (2007). Collective emotions in conflict situations: societal implications. *J. Soc. Issues* 63, 441–460. doi: 10.1111/j.1540-4560.2007.00518.x

Beck, C. J., and Schoon, E. W. (2018). "Terrorism and social movements," in *The Wiley Blackwell Companion to Social Movements*, eds D. A. Snow, S. A. Soule, H. Kriesi, and H. J. McCammon, (Hoboken, NJ: Wiley), 698–713. doi: 10.1002/9781119168577.ch40

Bélanger, J. J., Caouette, J., Sharvit, K., and Dugas, M. (2014). The psychology of martyrdom: making the ultimate sacrifice in the name of a cause. *J. Pers. Soc. Psychol.* 107, 494–515. doi: 10.1037/a0036855

Benski, T. (2010). "Emotion maps of participation in protest: the case of women in black against the occupation in Israel," in *Research in Social Movements, Conflicts and Change*, Vol. 31, ed. P. G. Coy, (Bingley: Emerald Group Publishing), 3–34. doi: 10.1108/S0163-786X20110000031004

Bergen, P. (2019). *What Explains Rich-Kid Terrorists*. Available at: https://www.cnn.com/2019/04/24/opinions/sri-lanka-terrorists-educated-middle-class-bergen/index.html (accessed May 14, 2019).

Bilger, A. (2014). *ISIS Annual Reports Reveal a Metrics-Driven Military Command*. Washington, DC: Institute for the Study of War (ISW).

Bin Sudiman, M. S. A. S. (2017). *IS Distortion of Hijrah: Emigrating For A Lost Cause | RSIS (Commentary No. CO17214)*. Singapore: Nanyang Technological University.

Bindner, L. (2018). *Jihadists' Grievance Narratives against France*. The Hague: International Centre for Counter-Terrorism.

Blaker, L. (2015). The Islamic State's use of online social media. *Military Cyber Affairs* 1, 1–9. doi: 10.5038/2378-0789.1.1.1004

Bloom, M. (2005). *Dying to Kill: The Allure of Suicide Terror*. New York, NY: Columbia University Press.

Bloom, M., and Horgan, J. (2019). *Small Arms: Children and Terrorism*. New York, NY: Cornell University Press.

Bloom, M., Tiflati, H., and Horgan, J. (2019). Navigating ISIS's preferred platform: telegram. *Terror. Polit. Viol.* 31, 1242–1254. doi: 10.1080/09546553.2017.1339695

Boutz, J., Benninger, H., and Lancaster, A. (2019). Exploiting the Prophet's authority: how islamic state propaganda uses hadith quotation to assert legitimacy. *Stud. Conflict Terror.* 42, 972–996. doi: 10.1080/1057610X.2018.1431363

Brewer, M. B. (1999). The psychology of prejudice: ingroup love and outgroup hate? *J. Soc. Issues* 55, 429–444. doi: 10.1111/0022-4537.00126

Cafarella, J., Wallace, B., and Zhou, J. (2019). *ISISI's Second Comeback: Assessing the Next ISIS Insurgency*. Washington, DC: Institute for the Study of War (ISW).

Callimachi, R. (2019). *ISIS Caliphate Crumbles as Last Village in Syria Falls*. New York, NY: The New York Times.

Clark, A. (1997). *Being There: Putting Brain, Body, and World Together Again*. Cambridge, MA: MIT Press.

Clark, A. (2008). *Supersizing the Mind: Embodiment, Action, and Cognitive Extension*. Oxford: Oxford University Press, doi: 10.1093/acprof:oso/9780195333213.001.0001

Colombetti, G. (2014). *The Feeling Body: Affective Science Meets the Enactive Mind*. Cambridge, MA: The MIT Press.

Colombetti, G., and Krueger, J. (2015). Scaffoldings of the affective mind. *Philos. Psychol.* 28, 1157–1176. doi: 10.1080/09515089.2014.976334

Colombetti, G., and Roberts, T. (2015). Extending the extended mind: the case for extended affectivity. *Philos. Stud.* 172, 1243–1263. doi: 10.1007/s11098-014-0347-3

Cooper-Thomas, H. D., and Anderson, N. (2006). Organizational socialization: a new theoretical model and recommendations for future research and HRM practices in organizations. *J. Manag. Psychol.* 21, 492–516. doi: 10.1108/02683940610673997

Cottee, S., and Hayward, K. (2011). Terrorist (E)motives: the existential attractions of terrorism. *Stud. Conflict Terror.* 34, 963–986. doi: 10.1080/1057610X.2011.621116

Dalgaard-Nielsen, A. (2008). *Studying Violent Radicalization in Europe. I, I*. Copenhagen: Danish Institute for International Studies.

Darden, J. T. (2019). *Tackling Terrorists' Exploitation of Youth*. Washington, DC: American Enterprise Institute.

De Leede, S., Haupfleisch, R., Korolkova, K., Natter, M., Carvalho, C., and Masieh, H. (2017). *Radicalisation and Violent Extremism – Focus on Women: How Women Become Radicalised, and How to Empower Them to Prevent Radicalisation*. London: European Parliament's Policy Department for Citizens' Rights and Constitutional Affairs.

Della Porta, D. (ed.) (1992). *Social Movements and Violence: Participation in Underground Organizations*. Greenwich: Jai Press.

Feddes, A. R., Mann, L., and Doosje, B. (2012). From extreme emotions to extreme actions: explaining non-normative collective action and reconciliation. *Behav. Brain Sci.* 35, 432–433. doi: 10.1017/S0140525X12001197

Gerwehr, S., and Daly, S. A. (2006). "Al-Qaida: terrorist selection and recruitment," in *The McGraw-Hill Homeland Security Handbook*, ed. D. G. Kamien, (New York, NY: McGraw-Hill).

Ginges, J., Hansen, I., and Norenzayan, A. (2009). Religion and support for suicide attacks. *Psychol. Sci.* 20, 224–230. doi: 10.1111/j.1467-9280.2009.02270.x

Gohari, M. J. (2000). *The Taliban: Ascent to Power*. Karachi: Oxford University Press.

Griffiths, P., and Scarantino, A. (2009). "Emotions in the Wild," in *The Cambridge Handbook of Situated Cognition*, eds P. Robbins, and M. Aydede, (Cambridge: Cambridge University Press), 437–453. doi: 10.1017/CBO9780511816826.023

Güss, C. D., Tuason, M. T., and Teixeira, V. B. (2007). A cultural-psychological theory of contemporary Islamic martyrdom. *J. Theor. Soc. Behav.* 37, 415–445. doi: 10.1111/j.1468-5914.2007.00347.x

Hafez, M. (2016). The ties that bind: how terrorists exploit family bonds. *CTC Sentinel* 9, 15–17.

Hafez, M., and Mullins, C. (2015). The radicalization puzzle: a theoretical synthesis of empirical approaches to homegrown extremism. *Stud. Conflict Terror.sm* 38, 958–975. doi: 10.1080/1057610X.2015.1051375

Harissi, M. A. (2015). *How ISIS lures recruits from the West*. Available at: https://www.businessinsider.com/afp-promises-of-love-jobs-for-foreign-recruits-in-is-utopia-2015-3?IR=T (accessed November 15, 2019).

Hogg, M. A., and Adelman, J. (2013). Uncertainty-identity theory: extreme groups, radical behavior, and authoritarian leadership: uncertainty-identity theory. *J. Soc. Issues* 69, 436–454. doi: 10.1111/josi.12023

Hogg, M. A., Kruglanski, A., and van den Bos, K. (2013). Uncertainty and the roots of extremism: uncertainty and extremism. *J. Soc. Issues* 69, 407–418. doi: 10.1111/josi.12021

Horgan, J. (2008). From profiles to pathways and roots to routes: perspectives from psychology on radicalization into terrorism. *Ann. Am. Acad. Polit. Soc. Sci.* 618, 80–94. doi: 10.1177/0002716208317539

Jasper, J. M., and Owens, L. (2014). "Social movements and emotions," in *Handbook of the Sociology of Emotions: Volume II*, eds J. E. Stets, and J. H. Turner, (Netherlands: Springer), 529–548. doi: 10.1007/978-94-017-9130-4_25

Kang, J. C. (2014). *ISIS's Call of Duty*. Available at: https://www.newyorker.com/tech/annals-of-technology/isis-video-game (accessed 15 May 2017).

Khawaja, M. (1993). Repression and popular collective action: evidence from the West Bank. *Sociol. Forum* 8, 47–71. doi: 10.1007/BF01112330

Klausen, J. (2015). Tweeting the Jihad: social media networks of western foreign fighters in Syria and Iraq. *Stud. Conflict Terror.* 38, 1–22. doi: 10.1080/1057610X.2014.974948

Krueger, J. (2014). Varieties of extended emotions. *Phenomenol. Cogn. Sci.* 13, 533–555. doi: 10.1007/s11097-014-9363-1

Kruglanski, A. (2006). Inside the terrorist mind: the relevance of ideology. *Estud. Psicol.* 27, 271–277. doi: 10.1174/021093906778965008

Kruglanski, A. W., Chen, X., Dechesne, M., Fishman, S., and Orehek, E. (2009). Fully committed: suicide Bombers' motivation and the quest for personal significance: significance quest and suicide terrorism. *Polit. Psychol.* 30, 331–357. doi: 10.1111/j.1467-9221.2009.00698.x

Kruglanski, A. W., and Fishman, S. (2009). Psychological factors in terrorism and counterterrorism: individual, group, and organizational levels of analysis. *Soc. Issues Policy Rev.* 3, 1–44. doi: 10.1111/j.1751-2409.2009.01009.x

Kruglanski, A. W., Gelfand, M. J., Bélanger, J. J., Sheveland, A., Hetiarachchi, M., and Gunaratna, R. (2014). The psychology of radicalization and deradicalization: how significance quest impacts violent extremism: processes of radicalization and deradicalization. *Polit. Psychol.* 35, 69–93. doi: 10.1111/pops.12163

Lakomy, M. (2019). Let's play a video game: Jihadi Propaganda in the World of Electronic Entertainment. *Stud. Conflict Terror.* 42, 383–406. doi: 10.1080/1057610X.2017.1385903

Lindner, E. G. (2001). Humiliation as the source of terrorism: a new paradigm. *Peace Res.* 33, 59–68.

Lofland, J., and Stark, R. (1965). Becoming a World-Saver: a theory of conversion to a deviant perspective. *Am. Sociol. Rev.* 30:862. doi: 10.2307/2090965

Macnair, L. (2018). *Linguistic and Narrative Trends Among Islamic State Videos and Magazines (No. WP # 18-08)*. Waterloo, ON: Canadian Network for Research on Terrorism, Securtiy and Society.

Macnair, L., and Frank, R. (2018). The mediums and the messages: exploring the language of Islamic State media through sentiment analysis. *Crit. Stud. Terror.* 11, 438–457. doi: 10.1080/17539153.2018.1447226

Malthaner, S., and Waldmann, P. (2014). The radical Milieu: conceptualizing the supportive social environment of terrorist groups. *Stud. Conflict Terror.* 37, 979–998. doi: 10.1080/1057610X.2014.962441

Matsumoto, D., Frank, M. G., and Hwang, H. C. (2015). The Role of intergroup emotions in political violence. *Curr. Direct. Psychol. Sci.* 24, 369–373. doi: 10.1177/0963721415595023

McBride, M. K. (2011). The logic of terrorism: existential anxiety, the search for meaning, and terrorist ideologies. *Terror. Polit. Viol.* 23, 560–581. doi: 10.1080/09546553.2011.575486

McCauley, C., and Moskalenko, S. (2008). Mechanisms of political radicalization: pathways toward terrorism. *Terror. Polit. Viol.* 20, 415–433. doi: 10.1080/09546550802073367

Mercurio, Z. A. (2015). Affective commitment as a core essence of organizational commitment: an integrative literature review. *Hum. Resour. Dev. Rev.* 14, 389–414. doi: 10.1177/1534484315603612

Miglani, S., and Pal, A. (2019). *Islamic State Claims Sri Lanka Blasts, as Government Says Probe Making Progress*. London: Reuters.

Moghaddam, F. (2005). The staircase to terrorism: a psychological exploration. *Am. Psychol.* 60, 161–169. doi: 10.1037/0003-066X.60.2.161

Moghaddam, F. M. (2012). The omnicultural imperative. *Cult. Psychol.* 18, 304–330. doi: 10.1177/1354067X12446230

NCTV, and AIVD, (2017). *The Children of ISIS: The indoctrination of minors in ISIS-held territory [Joint Publication]*. The Hague: The National Coordinator for Security and Counterterrorism (NCTV) and The General Intelligence and Security Service (AIVD).

Nepstad, S. E. (2004). *Convictions of the Soul: Religion Culture and Agency in the Central America Solidarity Movement*. Oxford: Oxford University Press, doi: 10.1093/0195169239.001.0001

Olidort, J. (2016). *Inside the Caliphate's Classroom: Textbooks, Guidance Literature, and Indoctrination Methods of the Islamic State*. Washington, DC: The Washington Institute for Near East Policy.

Paracha, N. F. (2011). *The Alphabet Jungle*. Available at: http://www.dawn.com/news/621023 (accessed May 22, 2019).

Paredes, B., Briñol, P., and Gómez, Á (2018). Identity fusion leads to willingness to fight and die for the group: the moderating impact of being informed of the reasons behind other members' sacrifice. *Self Identity* 17, 517–530. doi: 10.1080/15298868.2017.1419503

Parkinson, B. (1995). *Ideas and Realities of Emotion*. London: Routledge.

Richards, C. (2015). *ISIS: JORDANIAN Pilot Burnt to Death "after Twitter Contest."*. Pune: Mirror.

Safi, M. (2019). *Death Toll in Sri Lanka Bombings Revised Down to 253*. London: The Guardian.

Sageman, M. (2008). *Leaderless Jihad: Terror Networks in the Twenty-First Century*. Philadelphia: University of Pennsylvania Press.

Schmid, A. (2013). *Radicalisation, De-Radicalisation, Counter-Radicalisation: a Conceptual Discussion and Literature Review*. The Hague: The International Centre for Counter-Terrorism. doi: 10.19165/2013.1.02

Schmid, A. (2015). *Challenging the Narrative of the "Islamic State."*. The Hague: The International Centre for Counter-Terrorism.

Silber, M. D., and Bhatt, A. (2007). *Radicalization in the West: The Homegrown Threat*. New York, NY: NYPD Intelligence Division.

Site Intelligence Group, (2014). *Islamic State Leader Abu Bakr al-Baghdadi Encourages Emigration, Worldwide Action*. Bethesda, MD: SITE Intelligence Group.

Slaby, J. (2016). Mind invasion: situated affectivity and the corporate life hack. *Front. Psychol.* 7:266. doi: 10.3389/fpsyg.2016.00266

Soufan Group, (2015). *Foreign Fighters: An Updated Assessment of the Flow of Foreign Fighters into Syria and Iraq*. New York NY: Soufan Group.

Speckhard, A., and Ahkmedova, K. (2006). The making of a martyr: chechen suicide terrorism. *Stud. Conflict Terror.* 29, 429–492. doi: 10.1080/10576100600698550

Speckhard, A., and Shajkovci, A. (2018). *10 Reasons Western Women Seek Jihad and Join Terror Groups*. Washington, DC: International Center for the Study of Violent Extremism.

Speckhard, A., and Shajkovci, A. (2019). The Jihad in Kenya: understanding Al-Shabaab recruitment and terrorist activity inside Kenya—in their own words. *Afr. Secur.ty* 12, 3–61. doi: 10.1080/19392206.2019.1587142

Speckhard, A., Shajkovci, A., and Yayla, A. S. (2018). Defected from ISIS or simply returned, and for how long?—challenges for the west in dealing with returning foreign fighters. *Homeland Secur. Affairs* 14, 1–22.

Stephan, A. (2018). "Critical note: 3Es are sufficient, but don't forget the D," in *The Oxford Handbook of 4E Cognition*, eds A. Newen, L. de Bruin, and S. Gallagher (Oxford: Oxford University Press), 607–619.

Stephan, A., and Walter, S. (2020). "Situated Affectivity," in *The Routledge Handbook of Phenomenology of Emotions*, eds T. Szanto, and H. Landweer, (London: Routledge).

Stephan, A., Walter, S., and Wilutzky, W. (2014). Emotions beyond brain and body. *Philos. Psychol.* 27, 65–81. doi: 10.1080/09515089.2013.828376

Sterelny, K. (2010). Minds: extended or scaffolded? *Phenomenol. Cogn. Sci.* 9, 465–481. doi: 10.1007/s11097-010-9174-y

Swann, W. B., Gómez, Á, Seyle, D. C., Morales, J. F., and Huici, C. (2009). Identity fusion: the interplay of personal and social identities in extreme group behavior. *J. Pers. Soc. Psychol.* 96, 995–1011. doi: 10.1037/a0013668

Taylor, M., and Horgan, J. (2006). A conceptual framework for addressing psychological process in the development of the terrorist. *Terror. Polit. Viol.* 18, 585–601. doi: 10.1080/09546550600897413

The Carter Center, (2015). *Overview of Daesh's Online Recruitment Propaganda Magazine, Dabiq*. Atlanta, GA: The Carter Center.

Ugarriza, J. E., and Craig, M. J. (2013). The relevance of ideology to contemporary armed conflicts: a quantitative analysis of former Combatants in Colombia. *J. Conflict Resolut.* 57, 445–477. doi: 10.1177/0022002712446131

Vale, G. (2018). *Cubs in the Lions' Den: Indoctrination and Recruitment of Children Within Islamic State Territory*. London: Department of War Studies, King's College London.

Van Ness, J., and Summers-Effler, E. (2018). "Emotions in social movements," in *The Wiley Blackwell Companion to Social Movements*, eds D. A. Snow, S. A. Soule, H. Kriesi, and H. J. McCammon, (Hoboken, NJ: Wiley), 411–428. doi: 10.1002/9781119168577.ch23

van Stekelenburg, J. (2017). Radicalization and Violent Emotions. *PS* 50, 936–939. doi: 10.1017/S1049096517001020

van Stekelenburg, J., and Klandermans, B. (2010). "Radicalization," in *Identity and Participation in Culturally Diverse Societies*, eds A. E. Azzi, X. Chryssochoou, B. Klandermans, and B. Simon, (Hoboken, NJ: John Wiley & Son), 181–194. doi: 10.1002/9781444328158.ch9

Walter, S. (2014). Situated cognition: a field guide to some open conceptual and ontological issues. *Rev. Philos. Psychol.* 5, 241–263. doi: 10.1007/s13164-013-0167-y

Webber, D., and Kruglanski, A. W. (2017). "Psychological factors in radicalization: a "3 N" approach," in *The Handbook of the Criminology of Terrorism*, eds G. LaFree, and J. D. Freilich, (Hoboken, NJ: John Wiley & Son), 33–46. doi: 10.1002/9781118923986.ch2

Wiktorowicz, Q. (2005). *Radical Islam rising: Muslim extremism in the West*. Lanham, MD. Rowman & Littlefield.

Wilner, A. S., and Dubouloz, C.-J. (2010). Homegrown terrorism and transformative learning: an interdisciplinary approach to understanding radicalization. *Glob. Change Peace Secur.* 22, 33–51. doi: 10.1080/14781150903487956

Wilutzky, W. (2015). Emotions as pragmatic and epistemic actions. *Front. Psychol.* 6:1593. doi: 10.3389/fpsyg.2015.01593

Winter, C. (2015a). *Documenting the Virtual 'Caliphate'*. London: Quilliam.

Winter, C. (2015b). *The Virtual 'Caliphate': Understanding Islamic State's Propaganda Strategy*. London: Quilliam.

Wright-Neville, D., and Smith, D. (2009). Political rage: terrorism and the politics of emotion. *Glob. Change Peace Secur.* 21, 85–98. doi: 10.1080/14781150802659390

Yayla, A. S., and Speckhard, A. (2016). *Isis Defectors: Inside Stories of the Terrorist Caliphate*. Bassendean WA: Advance press, doi: 10.13140/RG.2.1.4888.3448

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Haq, Shaheed and Stephan. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

ORIGINAL RESEARCH
published: 03 March 2020
doi: 10.3389/fpsyg.2020.00333

Is the Role of Ideologists Central in Terrorist Networks? A Social Network Analysis of Indonesian Terrorist Groups

Mirra Noor Milla*, Joevarian Hudiyana, Wahyu Cahyono and Hamdi Muluk

Faculty of Psychology, Universitas Indonesia, Depok, Indonesia

This study aims to describe how group leaders operate with their social ties of jihadi terrorists, using social network analysis. Data was collected through documents and interviews from terrorist detainees who were involved in jihadi terrorism activities in Indonesia. We found that relational trust with operational leaders plays an important role in terrorist social networks. More specifically, operational leaders possess a higher degree of centrality and betweenness centrality compared to ideological leaders, as operational leaders happened to possess stronger social ties (with close friends or respected authorities). Furthermore, we also found that terrorist networks in Indonesia consist of a large group of cells with low density, where members are not strongly connected to each other. The only bridges that were strong in these social networks were those involving operational leaders. This study confirmed previous studies that terrorist groups operate in a cell system, but lead to a novel finding that ideological leaders may play a limited or indirect influence in operational networks.

Keywords: relational trust, terrorist group, jihadist group, social network analysis, strong ties

OPEN ACCESS

Edited by:
Jocelyn J. Bélanger,
New York University Abu Dhabi,
United Arab Emirates

Reviewed by:
Idit Shalev,
Ariel University, Israel
Shiri Lavy,
University of Haifa, Israel

Correspondence:
Mirra Noor Milla
mirranoor@ui.ac.id

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *13 June 2019*
Accepted: *12 February 2020*
Published: *03 March 2020*

Citation:
Milla MN, Hudiyana J, Cahyono W and Muluk H (2020) Is the Role of Ideologists Central in Terrorist Networks? A Social Network Analysis of Indonesian Terrorist Groups. Front. Psychol. 11:333. doi: 10.3389/fpsyg.2020.00333

INTRODUCTION

Ever since the September 11, 2001 terrorist attack, the topic of radicalism and terrorism flooded the scientific literature of social science. As this article is written, online database searches (Google scholar) for the keywords 'terrorism' and 'radicalism' published between 2001 and 2019 resulted in a total of 715,400 articles. This number was almost four times higher compared to the number of articles published between 1980 and 2000 with the same keywords (we found only a total of 187,900 articles in 1980–2000). As a result, we have now retained several scientific models that explain the potential causes of radicalism and terrorism (Gøtzsche-Astrup, 2018). Previous empirical works noted that perceived political injustice (Borum, 2003; Sageman, 2004; Moghaddam, 2005; Della Porta, 2013), social identity consolidation (Kruglanski et al., 2014; Hafez and Mullins, 2015; Sageman, 2017; Newson et al., 2018), personal uncertainty (Wiktorowicz, 2005), revenge (McCauley and Moskalenko, 2011), and need deprivation (Borum, 2003; Silber et al., 2007; Kruglanski et al., 2014) can explain why people engage in the various stages of radicalism.

More recently, Kruglanski et al. (2019) developed an integrative model where ideological narratives and social networks, along with personal needs may interact together in predicting

radicalism and terrorism. "Personal needs," in this context, refers to the need to belong – to live a significant life as a member of the community or society. To live a meaningful life becomes an important goal when the feeling of significance is lacking, such as when people experience personal failure, rejection, and humiliation. Without exposure to an ideological narrative, there would be no cause and therefore violent actions would have no meaning. Similarly, without involvement in social networks, ideological commitment may not easily manifest into real action. Finally, without the burning desire from group members to advance the group's goal, members of the terrorist cells will not be ready to sacrifice themselves for the sake of the group. Despite the realization of these intertwining factors, one question remains. How strongly must ideological narratives be in the group members' minds before they are ready to commit acts of self-sacrifice, such as suicide bombings?

The role of ideology in terrorism has been the subject of controversy in the literature. Some argued that religious ideology is the main determinants of terrorism (Harris, 2005; Rausch, 2015; Dawkins, 2016). Others thought that ideology may serve only as a justification of other primary motivations, such as individual needs (Pyszczynski et al., 2003; Webber et al., 2018), economic and political problems (Piazza, 2017; Laqueur, 2017; Anderton and Carter, 2019), or symbolic intergroup conflict (Whitehouse et al., 2019). Despite the apparent disagreement, the current literature lacks firm evidence that demonstrates whether ideology serves as the main determinant or as a justification (Gøtzsche-Astrup, 2018). Moreover, there are only a few research investigations that directly examine the role of ideological narratives in actual terrorist groups. Thus, more research is needed in determining the role of ideology in actual terrorist groups. The present study aims to explore whether ideological narratives are central in terrorist group operations, using the data from actual terrorist groups.

Meanwhile, analysts are still in the dark when trying to determine the nature of terrorist organizations. We need more insights into how the organizations are structured and how these organizations survive, adapt or metamorphose (Jackson, 2006). A significant body of evidence has focused on the advantages of networked and flexible organizations for terrorists compared to more traditional hierarchical organizations (Arquilla and Ronfeldt, 2001; Koschade, 2007). The present study aims to explore potential ways of how terrorist groups operate. Considering that terrorist groups are formed through strong social bonds such as kinship (Sageman, 2004, 2011) and friendship (Milla and Hudiyana, 2019), we are questioning whether ideological narratives are central in terrorist group operations.

As described by Yuki (2003), people in Western cultures tend to emphasize the categorical distinction between ingroups and outgroups, while East Asians may have a stronger tendency to think about groups as predominantly relationship-based. We argue that within a communal society such as Indonesia, ideological narratives may play a less important role for members/followers compared to the relational trust and fulfillment of personal needs. For Indonesian terrorist groups, leaders who inspire members may play a more significant role in obtaining devotion from their members, compared to the ideological narratives itself. As a country which adopts Asian culture, Indonesia is a society with a large gap of power between leaders and members (Hofstede and Bond, 1984; Irawanto, 2009), and a society where harmony, loyalty, and compliance inside community is paramount (Triandis et al., 1986; Rahardjo, 1994; Rajiani and Jumbri, 2011). These cultural practices may shape how the group operates in order to advance their goals, including terrorist groups. Consequently, there may be a lesser need for leaders to inspire through ideological indoctrination. Rather, leaders should inspire the loyalty of members through their discipline, benevolence, and relational ties (Liu, 2015). Such leaders should possess a more central role in the group compared to ideological leaders or experts. Here, ideological narratives do not serve as a single underlying cause of radicalism. However, relational ties with an operational leader within a terrorist cell determine its members' willingness to commit violent behavior.

Indonesian Terrorist Groups Dynamics: How Leaders Manage Their Members

In general, Sageman (2004) explained that the formation of religiously motivated terrorist groups begins with people who decided to join small groups. Within these groups, the people live together for a certain period of time where they intensely discuss topics of religious ideology. Some of these individuals then joined jihadi military training (in Afghanistan, for example) and this further strengthens the group identity and ideological commitment (Milla et al., 2013, 2019). In this stage, the individuals belong to a very small group with high relational bonds. Sageman (2004) explained that these small groups consist of people whose friendships have developed intensely and individuals possess similar backgrounds. Thus, intense bonds can be found in such cliques. In other words, terrorist cells usually consist of small groups with strong ties where personal relationships are significant to each member.

Previous works have pointed out the role of ideological narratives as a determinant in explaining terrorism (Crenshaw, 1985). However, whether ideological narratives play a paramount role in the formation of terrorist cells has never been explained. Ideology is believed to inspire only when it is spread within the collectively shared reality (Hardin and Higgins, 1996; Kruglanski et al., 2013). This means that social ties are initially formed without strong ideological propaganda and such narratives are emphasized only after group commitment is established. At the formative stage, leaders or mentors play a more important role, especially in maintaining compliance and loyalty to the group (Milla et al., 2013). The leadership position is essential in strengthening the ideologization process through exclusivity and isolation, and encourage commitment to the point of no return (Milla and Umam, 2019). These leaders inspire loyalty as well as ensuring the fulfillment of members' personal and psychological needs.

The centrality of this leadership role explains why terrorist cell groups are less ideological and more relational. These leaders are not the main ideologists where religious inspiration and *fatwa* (preaching) are central for members' devotion. Rather, they

utilize religion and ideology mainly as the source of justification. For instance, a member may seek revenge on an outgroup or the government, and it is the job of these leaders to provide religious verses that may justify such revenge. This implies that ideology can strongly motivate in a context where it is in line with personal needs (Kruglanski et al., 2019). However, whenever the ideological propaganda is out of touch with personal needs, the motivation will not be as powerful. This is why relational bonds are important since such bonds will ensure trust. The operational leaders, who also happen to be mentors, have strong interpersonal ties with their followers (Milla et al., 2013). This phenomenon is explained by Sageman as a leaderless jihad (Sageman, 2011), but they are actually not leaderless. The leaders are simply not ideological leaders. Rather, they act more as the operational leaders who organize the recruitment of members, manage the group, and orchestrate the terrorist actions. Thus, these leaders may satisfy the needs of members by providing mutual relationships, inspiring devotion, exerting benevolence, or setting an example through personal integrity.

Within the terrorist groups, there are usually people who are respected as ideologists or preachers. They are known as leaders who are prophetic, possess a high level of religious knowledge, are looked up to in terms of morality, and their preachings should always be obeyed. In spite of this, they are less likely to experience direct contact with their members. One of the most famous figures to play a role of an ideological leader is Abu Bakar Ba'asyir, whose teachings inspired the terrorist networks but he was not directly involved in the execution of the terrorist actions (Atran, 2006). These preachers are only responsible to provide the group with profound ideological knowledge. However, since such profound knowledge relies on higher-order thinking and deeper cognitive understanding, its attractiveness for followers is limited (Magolda, 2008). In addition, such profound knowledge may inspire agency and autonomy, where group dogmas and doctrines may be questioned by individuals (Magolda, 2008; Harari, 2016). That sense of agency and autonomy may endanger the cohesiveness and unity of terrorist groups. Previous works demonstrated that the support for group hierarchy and social dominance – common in terrorist networks – are robust for those who tend to be closed-minded (Onraet et al., 2011). In addition, individuals who are prone to heuristic biases (as opposed to critical thinkers) are more likely to be recruited into terrorist organizations (Milla, 2005). Consequently, ideological leaders may merely satisfy the needs for certainty and order (Jost et al., 2008a; Hogg, 2014).

An ultra-conservative group such as the terrorist group provides system-justifying belief systems which rationalize the social and political arrangements they deemed as necessary (Jost et al., 2008b). Such group serves to maintain the members' personal satisfaction – a palliative function – in order for them to cope with reality (Jost and Hunyady, 2003). There are three ways that group can provide system-justification needs (Jost et al., 2008a): (1) through offering cognitive order and certainty – the epistemic needs; (2) through reducing the threat and stress – the existential needs; and (3) through providing a shared reality and the needed relationship - the relational needs. Within the terrorist groups, it is possible that ideologists may be more adept in providing cognitive certainty through their preachings while operational leaders, who interact intensely with the members may provide the members with existential and relational needs.

Group leaders may also inspire trust through exhibiting one or more of the three trustworthiness styles (Mayer et al., 1995). First, they can show their ability to the members so that these members perceive them as competent. Second, they can provide kindness and supportive attitudes in various behavior so that the members perceive them as benevolent. Third, they can guide the members through integrity and so the leaders may be perceived as a role model or someone to look up to. Such trustworthiness is paramount in order to enhance members' satisfaction (Gilstrap and Collins, 2012), members' performance (Hakimi et al., 2010) as well as increasing outcome favorability (Lin et al., 2009).

We assume that the operational leaders' role is more central in maintaining group continuity, compared to ideological actors. The rationale for this assumption is that strong leader–follower interactions can provide trustworthiness as well as ideological justifications for the members' system-justifying needs. In the formation of group commitment, the leaders' strategy in ensuring the fulfillment of followers' personal needs is paramount. Further ideological knowledge may be less important, and so the trust toward ideological actors is not necessary.

Relational Dynamics in Terrorist Groups: The Role of the Indonesian Cultural Context

Strong and stable social relations promote a sense of security within collective entities (Yamagishi et al., 1998). This relational issue should be a concern in discussing the group in a collective culture and communal society. In a communal society such as Asia, people often emphasize the role of relational hierarchies (Liu, 2015). Extreme power gaps may not be seen as anti-democratic or authoritarian, but rather as a necessary structure to maintain order and harmony. In such a context, the leader–follower relationship may not be manifested in the transactional benefits of each party involved. Rather, it is manifested in devotion and loyalty to authority, where the leaders are solely responsible for ensuring the fulfillment of the members' well-being (Liu et al., 2010). As an Asian society, Indonesia may culturally share such tendencies.

Loyalty and devotion to authority may be the most apparent moral values in the Indonesian communal culture. Such values are shared in many Asian philosophies, such as Confucian thoughts (Rosemont, 2015). People who do not show loyalty or devotion to a group are seen as those who can ruin harmony and order. Devotion to authority figures, such as the elderly or assigned community leaders, has been internalized ever since individuals interact with their most immediate authority, that is, their parents. It is not surprising that such virtues are practiced in the context of terrorist groups. For those within terrorist groups, the meaningful interactions may be less transactional and equal, but rather hierarchical. Complete obedience to authority may not be seen in a negative light but is seen favorably. Consequently, once the leaders have set the moral grounds, it is easier to manage the members' loyalty, even without

ideological inspiration (Milla et al., 2019). This also implies a shift of responsibility, because the members may perceive that the responsibility of actions completely belong to authority figures whom they trust (Bandura et al., 1996; Milla, 2010). Furthermore, whatever indoctrinations and moral justifications of violence that the leaders propose, the members would be willing to commit as long as they trust the leaders. Thus, the leaders may need to show personal integrity through inspiring devotion.

Yuki's (2003) framework proposes that Asian collectivism is important to maintain relational harmony, especially within groups where members are fully devoted to the respected figures, such as group leaders and key figures in society. Trust occurs only in the group with strong social cohesion. In order to create such strong cohesion, it is important for members to completely obey the authority figures. In terms of in-group cooperation and coordination, relational trust is more important than the narratives of ideology provided inside the groups. Relational trust, as explained by Bryk and Schneider (2002), is rooted in a complex cognitive activity of discerning the intentions of others that occur within a set of interpersonal relationships and are formed both by the group structure and by the particularities of an individual in the group, localized in its own culture, history, and local understandings.

For Indonesian people, personal needs may also be less individualistic (e.g., personal achievement). For instance, motivation to be a hero, martyr, or to experience sensations is one of the several personal motivations for individuals to join terrorist organizations (Kruglanski et al., 2014). Such self-enhanced motivation may not be shared by Indonesian terrorist group members. Rather, the motivation may be more relational, such as to make the authorities proud and to avoid strife within a group, or to maintain harmony. Previous work has demonstrated that individualistic cultures, such as Western societies, may promote self-enhanced motivation as a primary orientation, while collectivistic cultures, such as Asia, may be oriented toward avoidance of relational loss and harmony-seeking (Elliot et al., 2001).

In the present study, we assume that the leaders' role is central in terrorist networks because they are the central decision-makers who inspire loyalty and devotion from their followers. In addition, followers in Indonesian terrorist groups may be less inclined to be inspired by individual ideological understanding or heroic motivations. The centrality of social networks of terrorist organizations may be shaped by operational rather than ideological leaders. Therefore, this study aims to show that operational leaders have a significant role in terrorist networks by establishing relational trust with their members.

MATERIALS AND METHODS

Research Design

This study uses social network analysis to examine the network of militant Islamic groups in Indonesia. This approach aims to understand exactly how groups of individuals interact and operate, and consequently, how they behave. This is a methodology that fuses mathematics, anthropology, psychology, and sociology. A "social network" is a social structure made up of individuals (or organizations) called "nodes," which are tied (connected) by one or more specific types of interdependency, such as friendship, kinship, common interest, financial exchange, dislike, sexual relationships, or relationships of beliefs, knowledge or prestige (Passmore, 2011). Social network analysis allows us to map and measure complex, and sometimes covert, human groups and organizations. The method focuses on uncovering the pattern of people's interaction. Social network analysis provides a powerful way of structuring knowledge about the relationship between concepts and people (Koschade, 2007). By using the framework of social network analysis, we were able to detect the 'stars' or 'well-connected figures' of the networks by computing the number of connections a person has with other people in the networks and compare it with overall connections (Scott, 1988). In addition, we also attempted to triangulate the findings by obtaining qualitative data from documents and interviews.

Data Collection

Ethical approval was not required for this study in accordance with the national and institutional requirements. However, the proposal was first examined by the university officials and inter-university evaluators before we were granted permission to execute the study. The evaluators and officials were Professors with expertise in militant extremism who came from various universities in Indonesia and Germany. The universities were Jacobs University Bremen – Germany, Sultan Syarif Kasim State Islamic University of Riau – Indonesia, Universitas Indonesia – Indonesia, and Universitas Riau – Indonesia. They examined our research questions, interview guidelines, and technical issues (e.g., ethical consent) in compliance with Indonesian laws. We were allowed by the prison officials, in cooperation with Badan Nasional Penanggulangan Terorisme (Indonesian National Agency for Combating Terrorism), to interview the detainees in prisons who were involved in terrorism. These detainees were willing to be interviewed, but the consent was managed by the prison officials since they were the ones who directly asked for their consent. There were some detainees who were unwilling to be interviewed for various reasons, so we did not interview these unwilling participants. We entered a room in the prisons, where the officials have already brought the detainees who are willing to participate.

The data were collected from documents and interviews. The documents consisted of articles that described the terrorist leaders, written testimonies from terrorists in the prisons, and published biographies of the terrorist leaders. Examples of the documents that we analyzed were published articles entitled "*Indonesia Backgrounder: How The Jemaah Islamiyah Terrorist Network Operates*" which was published in December 11, 2002; "*Terrorism in Indonesia: Noordin's Networks*" which was published in May 5, 2006; and "*Indonesia: Jihadi Surprise in Aceh*" which was published in April 20, 2010. Other documents were written diaries of terrorist detainees in prisons and a published biography of the terrorist leaders such as a book entitled "*Membongkar Jamaah Islamiyah*" or "Unveiling the Jamaah Islamiyah" published in 2007. From these documents, we obtained information about the roles of actors within

the network, as well as their interpersonal relations which contributed to the formation of the network. We have also gained a deeper understanding of how members of the terrorist groups are connected through kinship, marriage and friendship (Sageman, 2004).

Meanwhile, the interviews were conducted across the six terrorist groups. The six terrorist organizations that we analyzed were identified as Bali Bombing Group I, Bali Bombing Group II, J. W. Marriott Bombing Group, Aceh Group, Poso Group, Solo Group, and KOMPAK Group. More specifically, we collected the information from members of several Islamist militant organizations who resided in two Indonesian prisons (Jakarta and Cilacap prisons), as well as information from known members of Islamist militant organizations in three Indonesian cities (Jakarta, Pekanbaru, Lamongan) outside prisons. We interviewed a total of 18 terrorist detainees. We asked the interviewees to list the names of the terrorist actors (leaders and members) inside and outside their organizations. Additionally, we also probed them regarding their relationship with the actors they have mentioned. The interview questions were focused on the questions related to the relationship and interaction between members of their groups, between members and their leaders, as well as between the group leaders. The informants were selected from groups that were involved in certain terrorist activities, such as jihad mobilization in Indonesia.

We successfully obtained 163 nodes and 888 directed ties (edges) across six terrorist organizations. Among these nodes, three nodes were ideological leaders and six nodes were operational leaders. We explained the details of these nodes in the following section.

Defining Terrorist Group Leaders

Operational leaders were defined as individuals who organized recruitment, manage the group, and orchestrated the terrorist actions. The operational leaders are abbreviated as OL1, OL2, OL3, OL4, OL5, and OL6. Meanwhile, ideological leaders were defined as individuals who assume a leadership role in ideological propaganda. They orchestrated the moral disengagement narratives and provided the verses of the holy text to justify violence and terrorism. They were known as preachers, who possess profound religious knowledge and are regarded as *ulama* (Imam of Muslims). The ideological leaders are abbreviated as IL1, IL2, and IL3.

Generally, operational leaders (OL1, OL2, OL3, OL4, OL5, and OL6) were either influential figures in their communities or people whose charisma was so profound that it could inspire devotion, especially in young males. Several of these operational leaders were highly educated, as some of them graduated from reputable universities in Indonesia and Malaysia. They were usually skilled in technical skills such as computer programming or chemistry (for the creation of explosives).

Meanwhile, ideological leaders (IL1, IL2, and IL3) were known to possess the sheer intellectual capacity and profound scholarly knowledge of religion. Within the terrorist network, they were regarded as great Imams whose preaching is central in the recruitment process and prepared the young members to commit self-sacrifice. Additionally, they provide the ideological justifications in practically any members' activities. No members of the group, as well as the operational leaders, dared to question the ideological leaders. Based on our classification, individuals were categorized either into ideological leaders or operational leaders exclusively. The individuals could play either of the roles, but in our research, there are no leaders who have both roles at the same time.

Strategy of Analysis

Data obtained from the documentation and interviews were coded. To describe the role of each leader, we used verbatim data obtained from various documents. We analyzed the verbatims by using thematic analysis. We categorized the personal style of leadership adopted by the ideological and operational leaders by using the Three System Justification Needs Framework (Jost et al., 2008a; Hennes et al., 2012) and the Three Styles of Organizational Trust (Mayer et al., 1995).

According to The Three System Justification Needs Framework, there are three types of system justifying needs: (1) Epistemic needs, that is the need for cognitive certainty and order, (2) Existential needs, that is the need to avoid existential threats and to reduce distress, and (3) Relational needs, that is the need to establish social relations and a shared reality with social networks. We analyzed the data by classifying each leader based on the type of needs they provided to their followers. Furthermore, according to Mayer et al. (1995), there are three types of trustworthiness: (1) Ability, which refers to the trustworthiness based on the relevant skills and competences, (2) Benevolence, which refers to the trustworthiness based on the willingness to help and support the truster, and (3) Integrity, which refers to the trustworthiness based on the consistency of adhering to the accepted principles. These two theoretical frameworks are appropriately used in this context because the identification of these categories is meaningful and consistent with our proposed explanation regarding why non-ideological needs may be more important in establishing stronger relational ties within a terrorist group.

The first step in any attempt to analyze a social network is to construct a contextual background of the relationships between nodes (the type of relationships and the degree of relationship quality). This relational background must be accomplished in order to understand the physical environment of the network. The relations or ties between each node were weighted based on relational trust, taking into account the closeness, roles, and frequency of interactions. However, we analyzed the in-degree and out-degree scores to determine the number of relationships that each of the nodes possesses. Furthermore, the data was organized by patterns of interaction and activity between members of the network cell. Based on the patterns of interaction of each member, the data were coded and analyzed by the Gephi software. All data that has been collected are categorized for actors based on their role and their relations in the networks. The analyzed data is available in **Supplementary Data Sheets 2, 3**.

We then computed the scores of overall network density as well as centrality (degree, in-degree, out-degree, and betweenness) for each leader node in the network, using the Gephi software. Degree centrality scores indicate the overall well-connectedness of each node – how many edges or ties that each node has compared to overall ties inside the networks; while

in-degree centrality indicated the direct relationship of other nodes with the respective node – how many nodes interacted with a certain single node (Scott, 1988). In contrast, out-degree centrality scores refer to the direct relationship of a single node to other nodes – the total number of interactions from a single node directed to other nodes (Scott, 1988). Finally, betweenness centrality scores indicate the node's ability to bridge other nodes – how many other nodes are linked by a single node as a bridge (Freeman et al., 1979). A score closer to '1' represents a stronger in-degree, out-degree, and betweenness centrality while a score closer to '0' represents a weaker in-degree, out-degree, and betweenness centrality.

Other than the scores of centrality, we also computed the scores of modularity, density, and path diameter. Modularity refers to an estimate of divisions inside a network. A value of more than 0.5 indicates that there are clear divisions inside of a network. Meanwhile, density is an estimate of the proportion of the relationship in the network to the total number of possible relationships. A value closer to '1' indicated a big network where each member is associated with other members, while a value closer to '0' indicated a collection of separate networks within a network where many members do not communicate with other members inside the network. Finally, network diameter refers to the estimate of the longest distance of travel between members inside the network.

RESULTS

Characteristics of Leader Nodes: The Distinctive Role of Operational Leaders and Ideological Leaders

In this section, we summarize the characteristics of both ideological and operational leaders based on the documents and interviews that we obtained. We analyzed the data from interviews and documents by categorizing the needs provided by the figures inside the system or group in the framework of System Justification Theory (Jost et al., 2008a) while referring to the three types of trustworthiness (ability, benevolence, integrity). These two theoretical frameworks are appropriately used in this context because the identification of these categories is meaningful and consistent with our proposed explanation regarding why non-ideological needs may be more important in establishing stronger relational ties within a terrorist group. See **Table 1** for a complete thematic analysis.

Compared to the three ideological leaders, the six operational leaders tend to be more relational in their interactions with their followers. Operational leaders such as OL1, OL2, OL4, OL5, and OL6 tend to exert the characteristics that inspire loyalty, obedience, and may provide the personal needs (e.g., economic needs and existential needs) of followers as well. For instance, the followers of OL5 saw him as a paternalistic figure who was very fatherly and supportive of his followers. Similarly, OL1 was perceived as a very accommodative and resourceful figure, who can manage the followers' personal needs rather easily. OL1 could easily provide the economic needs of his followers, such as halal goods (as opposed to forbidden goods, usually bought in general markets). Meanwhile, the followers of OL2 and OL6 tend to perceive him as a powerful and charismatic figure whose teachings must be obeyed, as he may exert his influence through fear. This is similar to OL4, whose followers perceived him to be strict and fierce.

However, other operational leaders, such as OL3, tend to secure devotion because of his meaningful relationships with his followers, rather than because of his inspiring characteristics or powerful attitudes. For instance, one of the followers of OL3 devoted his life to commit actions of self-sacrifice because he felt that OL3 was personally close to him; a best friend and a part of his family. He was willing to risk his life for terrorist activities led by OL3 because he was his childhood friend.

This was in contrast with ideological leaders, where the relational approach and meaningful interactions were not emphasized. Rather, ideological leaders merely provide moral justifications for violent actions, determine the readiness of members in the actions (which can be done indirectly), as

TABLE 1 | Characteristics of leaders (summarized from documents).

#	Initials (Roles)	Style of Trustworthiness (Mayer et al., 1995)	The Needs Provided to Members (Jost et al., 2008a)
1	IL1 (Ideological leader)	Ability – trustworthy because of the profound knowledge in religion	Epistemic needs – satisfies the needs of order and certainty
2	IL2 (Ideological leader)	Ability – trustworthy because of the profound knowledge in religion	Epistemic needs – satisfies the needs of order and certainty
3	IL3 (Ideological leader)	Ability – trustworthy because of the profound knowledge in religion	Epistemic needs – satisfies the needs of order and certainty
4	OL1 (Operational leader)	Benevolence – trustworthy because the leader provides resources and material needs	Existential needs – satisfies the needs to reduce stress
5	OL2 (Operational leader)	Integrity – trustworthy because the leader values the group norms and inspires discipline	Relational needs – satisfies the need for devotion
6	OL3 (Operational leader)	Benevolence – trustworthy because the leader inspires loyalty as a good friend	Relational needs – satisfies the needs of social relationship
7	OL4 (Operational leader)	Integrity – trustworthy because the leader values the group norms and inspires discipline	Relational needs – satisfies the need for devotion
8	OL5 (Operational leader)	Benevolence – trustworthy because the leader provides a paternalistic figure	Relational needs – satisfies the need for devotion
9	OL6 (Operational leader)	Integrity – trustworthy because the leader values the group norms and inspires discipline	Relational needs – satisfies the need for devotion

well as implanting the indoctrination of terrorism in the followers' minds. These narratives often were only powerful when individual commitment to the group has been established. Further, the indoctrination of religious knowledge may only be relevant when it is in line with their personal needs in a specific context. Thus, this may be less important in the daily group interactions and dynamics within the terrorist group. Verbatim example for the qualitative analysis and short profile for each leader are illustrated in **Supplementary Appendices A, B**.

The Overall Network Structure of Islamic Radical Groups in Indonesia

First, we ran the Gephi software to examine the overall network structure and the density of the network. On average, a node had five relationships with other nodes, where the average distance from one node to another node is three steps (path length). The structure of the network is low in density (Density = 0.034), indicating that the relationship between actors are not directly connected with one another but through single connectors who act as intermediaries (bridging ties). We found the score of Average Clustering Coefficient = 0.465, Average Path Length = 3.201, Modularity = 0.549, Average Degree = 5.479, Average Weight Degree = 4.438, and Network Diameter = 7. Taken together, these results indicate that even though a lot of people were involved in a single network, they tend to operate in separate cells, forming various independent groups and were connected to each group only through a single bridge of node.

The network structure is illustrated in **Figure 1**. From the network structure, we can infer that there were at least six groups identified in the network, though all of the nodes formed a single network structure. Interestingly, we found a total of more than six clusters of networks in the structure. This means that there was a group that may not be united as a single cohesive structure. The two nodes with the boldest color (OL3 and OL5) are the nodes that possess the highest betweenness centrality.

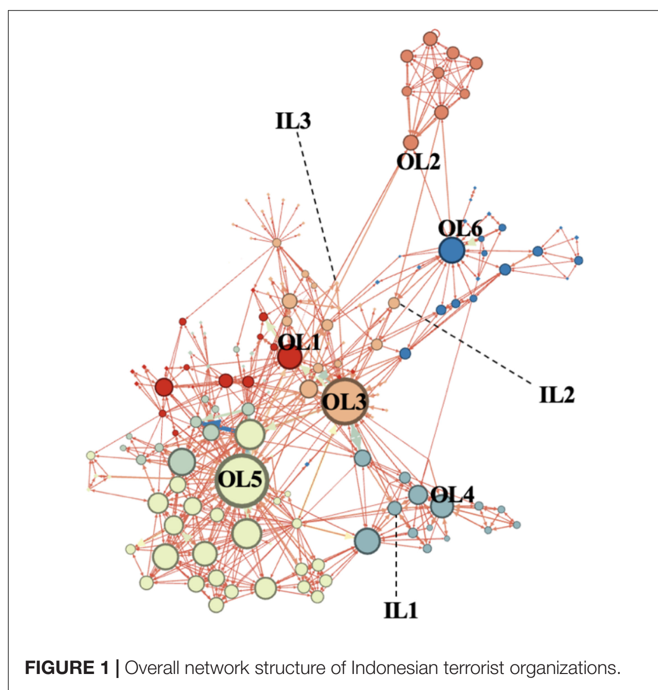

FIGURE 1 | Overall network structure of Indonesian terrorist organizations.

Centrality of Ideological Leaders and Operational Leaders

From **Figure 1**, we can also observe that operational leaders are more central compared to ideological leaders. We then computed the degree centrality, in-degree centrality, out-degree centrality, and betweenness centrality for each leader. **Table 2** illustrates the scores for all centrality indices across all nine leaders. Consistent with our prediction, we found ideological leaders to be less influential, in which all centrality scores were numerically lower compared to the operational leaders. The three highest degree centrality (the number of interactions of other nodes with the reference node) scores were earned by operational leaders (OL3, OL5, and OL6) while the three lowest degree centrality scores were earned by ideological leaders (IL1, IL2, IL3).

Similarly, the highest in-degree centrality (how many other nodes interacted with a reference node) score was owned by OL5. Again, the highest out-degree centrality (how many other nodes that the reference node was in contact with) score was owned by OL5, although it was only slightly higher compared to OL3. Both were operational leaders. Even though OL2 only scored slightly higher in-degree centrality compared to IL1, the score of betweenness centrality (how likely a node is to bridge other nodes) of OL2 was much higher compared to all ideological leaders. Thus, the results also show that operational leaders were more likely to connect the members with each other within the terrorist networks. One of the ideological leaders, IL3, scored 0.0 in betweenness centrality and out-degree centrality, which shows that IL3 did not interact with other nodes, even though other nodes show that there is a perceived relationship with IL3 (In-degree centrality = 2.0).

DISCUSSION

The present research argued that terrorist networks in Indonesia will be less influenced by ideological leaders. Rather, the actors who played a central role in terrorist networks are operational leaders. The rationale behind this assumption is that relational trust should be maintained inside the group as a mechanism to bond the individuals inside the group to become highly committed. In this sense, the operational leaders managed to establish relational trust along with relational hierarchy within the group. Ideology, on the other hand, served only as moral justification, especially for preparing individuals to commit self-sacrifice or violence. This can happen indirectly, even without direct contact with the ideological leaders. From the analysis, we found that, indeed, operational leaders were the actors that play a central role in terrorist networks while ideological leaders were less central. Not only that each and every one of the operational leaders possessed higher scores of degree centrality (both in-degree and out-degree), but they also scored higher in betweenness centrality. This means that not only do these operational leaders have the most contact with other group

TABLE 2 | Centrality of nine leader nodes.

#	Initials (Roles)	Degree Centrality (Weighted)	In-Degree Centrality (Weighted)	Out-Degree Centrality (Weighted)	Betweenness Centrality
1	IL1 (Ideological leader)	18 (16.2)	9 (8.7)	9 (7.5)	123.5
2	IL2 (Ideological leader)	13 (10.6)	7 (5.9)	6 (4.7)	608.6
3	IL3 (Ideological leader)	2 (2.0)	2 (2.0)	0 (0.0)	0.0
4	OL1 (Operational leader)	32 (29.3)	17 (14.4)	15 (14.9)	1472.8
5	OL2 (Operational leader)	21 (17.2)	10 (8.8)	11 (8.4)	1858.6
6	OL3 (Operational leader)	65 (60.4)	33 (32.1)	32 (28.3)	5078.9
7	OL4 (Operational leader)	31 (25.5)	16 (13.8)	15 (11.7)	1138.9
8	OL5 (Operational leader)	75 (66.9)	38 (37.0)	37 (29.9)	4645.4
9	OL6 (Operational leader)	38 (30.3)	18 (15.3)	20 (15.0)	3172.7

members, but they also linked the followers to each other and with other members of distinct terrorist groups.

The results imply that since operational leaders are the central player in the networks, they need to secure their followers' loyalty and maintain their followers' needs by various means. According to the theoretical proposition by Kruglanski et al. (2019), having powerful ideological narratives may not be enough. Members' personal needs should also be addressed to motivate them into joining the group, continuing their membership, and committing self-sacrifice. Therefore, the leaders' capability to secure the commitment of their members is paramount. Our qualitative data indicated that operational leaders such as OL1, OL3, and OL5 inspired loyalty because they were either a good friend, assumed a paternalistic role (fatherly figure), or can fulfill personal needs, such as economic needs.

In addition, the cultural context of Indonesia may also explain why such relational emphasis in the network might happen. Our qualitative data indicated that operational leaders such as OL2, OL4, and OL6 exerted fear over their followers. They maintained a relational hierarchy within the group. In a communalistic society such as Indonesia, such a demonstration of power may not be seen as anti-democratic or authoritarian (Liu et al., 2010). Rather, it was reciprocal, in which the leaders are in supreme responsibility to protect the followers and to ensure the security of followers. As an act of reciprocity, the followers completely obey the authority and trust the leaders. Such a phenomenon is not new in Asian culture, where the hierarchical relationalism is paramount in maintaining harmony (Liu, 2015). However, compared to OL3 and OL5, all centrality scores for OL2, OL4, and OL6 tend to be lower. This might indicate that relational trust exhibited by OL3 and OL5 may be more influential to followers than the absolute authoritarian style exhibited by OL2, OL4, and OL6 (see **Table 1**).

The results that show how ideological actors play a less central role in the network can perhaps be attributed to the proposition by Kruglanski et al. (2019). Without the fulfillment of personal needs, the motivation to be committed in the network may not be quite strong. With this in mind, ideological narratives may be important as long as it is in line with personal needs. For instance, someone whose goal is to avenge the death of his family may join the terrorist group, not because of the divine commandments, but to kill the members of the outgroup. However, it is important to justify such motivation with ideological narratives, to morally disengage from the violence. Here, a deep understanding of religious teachings may not be necessary for members. A deep understanding of ideology may not be useful because such knowledge may be too difficult for all members to comprehend. Additionally, it may be more difficult to maintain loyalty in the context where the members always question the teachings. Thus, deep understanding may be counterproductive for group cohesiveness (Harari, 2016).

Further ideological indoctrinations may be necessary only for justification of self-sacrifice and violence (the final stage of violent extremism) but are not necessary for daily group dynamics (Milla et al., 2013). In daily group processes, the maintenance of individuals' needs is much more important than having a strong ideological commitment. Such maintenance may enhance group commitment and bolster social identification with the terrorist groups. When commitment is high, it would be much easier to indoctrinate the members.

We also found that the terrorist network in Indonesia was not a dense network since the density score was relatively low. This explained why the networks might be difficult to destroy. Previous work suggests that network density is positively related to the ease of the network authority's command and control (Granovetter, 1983). It may also render the network more vulnerable as such a network is more likely to fall into rapid deterioration once the key figures are eliminated (Koschade, 2006). As we assumed, the network consisted of a strong bond that was based more on interpersonal relational ties. The strong bond with a group is centered on the central figure rather than the group ties as a whole (Yuki, 2003). This study also confirms previous findings that terrorist networks are often engaged in a cell system (Sageman, 2004; Koschade, 2007; Wheatley, 2007).

The characteristics of terrorist cells are unique, in which the cells are connected by interpersonal relations which act as bridging ties between actors. Again, the operational leaders, serving as actors with high betweenness centrality may play a great part in connecting the cells. The groups were led by the leaders who emphasized relationality and placed less emphasis on ideology. Therefore, this group is more likely to form a cell system, in which the action of each cell is autonomous and very collective on the inside (Matthew and Shambaugh, 2005) under the central role of a leader (Chappel, 2002; Ressler, 2006;

McCauley and Moskalenko, 2011). Cell systems, as observed in our results, may actually reduce the chance of detection and allow high flexibility in operation (Stern, 2003; Dishman, 2005; Hoffman, 2006). On the other hand, however, the problem of coordination and control arises mainly due to the lack of trust and coordination between cells (Chappel, 2002; Sageman, 2004; Koschade, 2007). Consequently, some of the cells may seem to adopt different strategies and even became hostile with one and another.

This finding may also challenge previous assertions, such as the notion of a leaderless jihad by Sageman (2011), who described that terrorist groups work in the cell system without a leader. Our network analysis demonstrated that key actors, which possess high degree centrality, were actually leaders. However, they are not ideological leaders, but those who orchestrated the actions, who recruited the followers, and who manage the daily needs of followers. Thus, this may support previous assumptions that there is actually a form of collective leadership inside terrorist groups (Crenshaw, 1985; Arquilla et al., 1999; Friedrich et al., 2009) based on the shared values (Wheatley, 2007).

Although our social network analysis has successfully demonstrated that the role of operational leaders is more central than ideological leaders within the network, social network analysis should not be used to explain causal patterns. So, the results in this study cannot be used to claim the causal effect of the influence of relational trust and ideology in explaining terrorism. Further, the distinction between operational and ideological leaders was obtained through our interviews with the members as well as the documents. We did not conduct a systematic approach to distinguish the two roles and test interrater reliability. We acknowledge these as the limitations of this study.

CONCLUSION

In summary, we found that Indonesian terrorist networks consisted of a single network, but with separate cells. The key actors inside the networks were not ideological leaders who assume the role of religious indoctrination. The key actors were operational leaders who recruit and manage the followers as well as preparing these followers to commit self-sacrifice. In order to maintain or increase commitment to these groups, leadership capability and relational factors may play a stronger role compared to ideological narratives.

DATA AVAILABILITY STATEMENT

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

AUTHOR CONTRIBUTIONS

MM was the first author who proposed the theoretical basis, hypotheses, and wrote the Introduction and Discussion (40% contribution). JH was the second author who conducted the analysis of data and helped to writing the Introduction, Materials and Methods, and Discussion (35% contribution). WC was a co-author who contributed to the analysis of data (15% contribution). HM was a co-author who contributed to the theoretical discussions (10% contribution).

FUNDING

We thank State Islamic University Sultan Syarif Kasim, Riau, Indonesia for granting us with Hibah Riset Kolaborasi (Research Collaboration Grants) which supported our initial data collection. We also thank Universitas Indonesia for granting us the Hibah PITMA UI for social network analysis research on radical groups in Indonesia.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2020.00333/full#supplementary-material

REFERENCES

Anderton, C. H., and Carter, J. R. (2019). *Principles of Conflict Economics: The Political Economy of War, Terrorism, Genocide, and Peace*. Cambridge: Cambridge University Press.

Arquilla, J., and Ronfeldt, D. (2001). *Networks and Netwars: The Future of Terror, Crime, and Militancy*. Santa Monica, CA: Rand Corporation.

Arquilla, J., Ronfeldt, D., and Michell, Z. (1999). "Networks, netwar, and information age terrorism," in *Countering the New Terrorism*, ed. I. O. Lesser (Santa Monica, CA: RAND Corporation), 39–84.

Atran, S. (2006). The moral logic and growth of suicide terrorism. *Wash. Q.* 29, 127–147. doi: 10.1162/wash.2006.29.2.127

Bandura, A., Barbaranelli, C., Caprara, G. V., and Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *J. Pers. Soc. Psychol.* 71, 364–374. doi: 10.1037/0022-3514.71.2.364

Borum, R. (2003). Understanding the terrorist mind-set. *FBI L. Enforcement Bull.* 72:7.

Bryk, A., and Schneider, B. (2002). *Trust in Schools: A Core Resource for Improvement*. New York, NY: Russell Sage Foundation. Available at: www.jstor.org/stable/10.7758/9781610440967 (accessed November 19, 2019).

Chappel, G. G. Jr. (2002). *A Terrorist Organization as a Systems: Unleasing Wardens's Five Ring Model*. Dissertation (unpublished), The Naval War College Department of Joint Maritime Operations.

Crenshaw, M. (1985). An organizational approach to the analysis of political terrorism. *Orbis-A J. World Affairs* 29, 465–489. doi: 10.1385/FSMP:1:3:169

Dawkins, R. (2016). *The God Delusion*. New York, NY: Random House.

Della Porta, D. (2013). *Clandestine Political Violence*. Cambridge: Cambridge University Press.

Dishman, C. (2005). The leaderless nexus: when crime and terror converge. *Stud. Conflict Terrorism* 28, 237–252. doi: 10.1080/10576100590928124

Elliot, A. J., Chirkov, V. I., Kim, Y., and Sheldon, K. M. (2001). A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychol. Sci.* 12, 505–510. doi: 10.1111/1467-9280.00393

Freeman, L. C., Roeder, D., and Mulholland, R. R. (1979). Centrality in social networks: II. Experimental results. *Soc. Netw.* 2, 119–141. doi: 10.1016/0378-8733(79)90002-9

Friedrich, T., Vessey, W., Schuelke, M. J., Ruark, G. A., and Mumford, M. D. (2009). A framework for understanding collective leadership: the selective utilization of leader and team expertise within networks. *Leadersh. Q.* 20, 933–958. doi: 10.1016/j.leaqua.2009.09.008

Gilstrap, J. B., and Collins, B. J. (2012). The importance of being trustworthy: trust as a mediator of the relationship between leader behaviors and employee job satisfaction. *J. Leadersh. Organ. Stud.* 19, 152–163. doi: 10.1177/1548051811431827

Gøtzsche-Astrup, O. (2018). The time for causal designs: review and evaluation of empirical support for mechanisms of political radicalisation. *Aggress. Violent Behav.* 39, 90–99. doi: 10.1016/j.avb.2018.02.003

Granovetter, M. (1983). The strength of weak ties: a network theory revisited. *Sociol. Theory* 1, 201–233.

Hafez, M., and Mullins, C. (2015). The radicalization puzzle: a theoretical synthesis of empirical approaches to homegrown extremism. *Stud. Conflict Terrorism* 38, 958–975. doi: 10.1080/1057610x.2015.1051375

Hakimi, N., Van Knippenberg, D., and Giessner, S. (2010). Leader empowering behaviour: the leader's perspective. *Br. J. Manage.* 21, 701–716. doi: 10.1111/j.1467-8551.2010.00703.x

Harari, Y. N. (2016). *Homo Deus: A Brief History of Tomorrow*. New York, NY: Random House.

Hardin, C. D., and Higgins, E. T. (1996). "Shared reality: how social verification makes the subjective objective," in *Handbook of Motivation and Cognition. Handbook of Motivation and Cognition, The Interpersonal Context*, Vol. 3, eds R. M. Sorrentino, and E. T. Higgins (New York, NY: The Guilford Press), 28–84.

Harris, S. (2005). *The End of Faith: Religion, Terror, and the Future of Reason*. New York, NY: WW Norton & Company.

Hennes, E. P., Nam, H. H., Stern, C., and Jost, J. T. (2012). Not all ideologies are created equal: epistemic, existential, and relational needs predict system-justifying attitudes. *Soc. Cognit.* 30, 669–688. doi: 10.1521/soco.2012.30.6.669

Hoffman, B. (2006). *Inside Terrorism*. New York, NY: Columbia University Press.

Hofstede, G., and Bond, M. H. (1984). Hofstede's culture dimensions: an independent validation using Rokeach's value survey. *J. Cross-cultural Psychol.* 15, 417–433. doi: 10.1177/0022002184015004003

Hogg, M. A. (2014). From uncertainty to extremism: social categorization and identity processes. *Curr. Direct. Psychol. Sci.* 23, 338–342. doi: 10.1177/0963721414540168

Irawanto, D. W. (2009). An analysis of national culture and leadership practices in Indonesia. *J. Divers. Manage. Second Q.* 4, 41–48. doi: 10.1108/LHS-01-2016-0001

Jackson, B. A. (2006). 'Groups, networks, or movements: a command-and-control-driven approach to classifying terrorist organizations and its application to Al Qaeda'. *Stud. Conflict Terrorism* 29, 241–262. doi: 10.1080/10576100600564042

Jost, J., and Hunyady, O. (2003). The psychology of system justification and the palliative function of ideology. *Eur. Rev. Soc. Psychol.* 13, 111–153. doi: 10.1080/10463280240000046

Jost, J. T., Ledgerwood, A., and Hardin, C. D. (2008a). Shared reality, system justification, and the relational basis of ideological beliefs. *Soc. Personal. Psychol. Compass* 2, 171–186. doi: 10.1111/j.1751-9004.2007.00056.x

Jost, J. T., Nosek, B. A., and Gosling, S. D. (2008b). Ideology: its resurgence in social, personality, and political psychology. *Perspect. Psychol. Sci.* 3, 126–136. doi: 10.1111/j.1745-6916.2008.00070.x

Koschade, S. (2006). A social network analysis of Jemaah Islamiyah: the applications to counterterrorism and intelligence. *Stud. Conflict Terrorism* 29, 559–575. doi: 10.1080/10576100600798418

Koschade, S. (2007). *The Internal Dynamic of Terrorist Cells: A Social Network Analysis of Terrorist Cells in An Autralian Context*. Dissertation, Queensland University of Technology, Brisbane, QLD.

Kruglanski, A. W., Bélanger, J. J., Gelfand, M., Gunaratna, R., Hettiarachchi, M., Reinares, F., et al. (2013). Terrorism—A (self) love story: redirecting the significance quest can end violence. *Am. Psychol.* 68:559. doi: 10.1037/a0032615

Kruglanski, A. W., Bélanger, J. J., and Gunaratna, R. (2019). *The Three Pillars of Radicalization: Needs, Narratives, and Networks*. Oxford, MS: Oxford University Press.

Kruglanski, A. W., Gelfand, M. J., Bélanger, J. J., Sheveland, A., Hetiarachchi, M., and Gunaratna, R. (2014). The psychology of radicalization and deradicalization: how significance quest impacts violent extremism. *Political Psychol.* 35, 69–93. doi: 10.1111/pops.12163

Laqueur, W. (2017). "The sociology of terrorism," in *A History of Terrorism*, ed. A. White (London: Routledge), 79–132. doi: 10.4324/9781315083483-3

Lin, X. W., Che, H. S., and Leung, K. (2009). The role of leader morality in the interaction effect of procedural justice and outcome favorability. *J. Appl. Soc. Psychol.* 39, 1536–1561. doi: 10.1111/j.1559-1816.2009.00494.x

Liu, J. (2015). Globalizing indigenous psychology: an East Asian form of hierarchical relationalism with worldwide implications. *J. Theory Soc. Behav.* 45, 82–94. doi: 10.1111/jtsb.12058

Liu, J. H., Li, M. C., and Yue, X. (2010). "Chinese social identity and intergroup relations: the influence of benevolent authority," in *Handbook of Chinese Psychology*, ed. M.H. Bond (Oxford: Oxford University Press), 579–597.

Magolda, M. B. B. (2008). Three elements of self-authorship. *J. Coll. Student Dev.* 49, 269–284. doi: 10.1353/csd.0.0016

Matthew, R., and Shambaugh, G. (2005). The limits of terrorism: a network perspective. *Int. Stud. Rev.* 7, 617–627. doi: 10.1111/j.1468-2486.2005.00536.x

Mayer, R. C., Davis, J. H., and Schoorman, F. D. (1995). An integrative model of organizational trust. *Acad. Manage. Rev.* 20, 709–734. doi: 10.5465/amr.1995.9508080335

McCauley, C., and Moskalenko, S. (2011). *Friction: How Radicalization Happens to Them and Us*. New York, NY: Oxford University Press.

Milla, M. N. (2005). Bias heuristik dalam proses penilaian dan pengambilan strategi terorisme. *J. Psikol. Indonesia* 1, 9–21.

Milla, M. N. (2010). *Mengapa Memilih Jalan Teror: Analisis Psikologis Pelaku Teror*. Yogyakarta: Gadjah Mada University Press.

Milla, M. N., Faturochman, and Ancok, D. (2013). The impact of leader–follower interactions on the radicalization of terrorists: a case study of the Bali bombers. *Asian J. Soc. Psychol.* 16, 92–100. doi: 10.1111/ajsp.12007

Milla, M. N., and Hudiyana, J. (2019). The protecting role of cross-group friendship mediates the role of ideological quest for significance on commitment to radical group. *Psychol. Res. Urban Soc.* 2:98. doi: 10.7454/proust.v2i2.42

Milla, M. N., Putra, I. E., and Umam, A. N. (2019). 'Stories from jihadists: significance, identity, and radicalization through the call for jihad'. *Peace Conflict: J. Peace Psychol.* 25, 111–121. doi: 10.1037/pac0000371

Milla, M. N., and Umam, A. N. (2019). "Understanding intergroup contact on terrorist prisoners in Indonesia," in *Learning From Violent Extremist Attacks: Behavioural Sciences Insights for Practitioners and Policymakers*, eds M. Khader, L. S. Neo, J. Tan, D. D. Cheong, and J. Chin (Singapore: World Scientific).

Moghaddam, F. M. (2005). The staircase to terrorism: a psychological exploration. *Am. Psychol.* 60:161. doi: 10.1037/0003-066x.60.2.161

Newson, M., Bortolini, T., Buhrmester, M., da Silva, S. R., da Aquino, J. N. Q., and Whitehouse, H. (2018). Brazil's football warriors: social bonding and inter-group violence. *Evol. Hum. Behav.* 39, 675–683. doi: 10.1016/j.evolhumbehav.2018.06.010

Onraet, E., Van Hiel, A., Roets, A., and Cornelis, I. (2011). The closed mind:'Experience'and 'cognition'aspects of openness to experience and need for closure as psychological bases for right-wing attitudes. *Eur. J. Personal.* 25, 184–197. doi: 10.1002/per.775

Passmore, D. L. (2011). *Social Network Analysis: Theory and Applications*. Dehradun: D. L. Passmore.

Piazza, J. A. (2017). Repression and terrorism: a cross-national empirical analysis of types of repression and domestic terrorism. *Terrorism Political Violence* 29, 102–118. doi: 10.1080/09546553.2014.994061

Pyszczynski, T., Solomon, S., and Greenberg, J. (2003). *In the Wake of 9/11: The Psychology of Terror*. Washington, D.C.: American Psychological Association.

Rahardjo, S. (1994). Between two worlds: modern state and traditional society in Indonesia. *Law Soc. Rev.* 28, 493–502.

Rajiani, I., and Jumbri, I. A. (2011). A cultural ecology of new public management in Indonesia. *J. Admin. Sci.* 8, 17–31. doi: 10.1016/j.scitotenv.2019.01.077

Rausch, C. C. (2015). Fundamentalism and terrorism. *J. Terrorism Res.* 6, 28–35.

Ressler, S. (2006). Social NETWORK ANALYSIS AS AN APPROACH TO COMBAT TERRORISM: PAST, PRESENT, AND FUTURE RESEArch. *Homeland Sec. Affairs* 2, 1–10.

Rosemont, H. Jr. (2015). *Against Individualism: A Confucian Rethinking of the Foundations of Morality, Politics, Family, and Religion*. Lanham, MD: Lexington Books.

Sageman, M. (2004). *Understanding Terror Networks*. Philadelphia, PA: University of Pennsylvania Press.

Sageman, M. (2011). *Leaderless jihad: Terror Networks in the Twenty-First Century*. Philadelphia, PA: University of Pennsylvania Press.

Sageman, M. (2017). *Turning to Political Violence: The Emergence of Terrorism*. Philadelphia, PA: University of Pennsylvania Press.

Scott, J. (1988). Social network analysis. *Sociology* 22, 109–127.

Silber, M. D., Bhatt, A., and Analysts, S. I. (2007). *Radicalization in the West: The Homegrown Threat*. New York, NY: Police Department, 1–90.

Stern, J. (2003). *Terror in the Name of God: Why Religious Militants Kill*. New York, NY: Harper Collin Publishers.

Triandis, H. C., Bontempo, R., Betancourt, H., Bond, M., Leung, K., Brenes, A., et al. (1986). The measurement of the etic aspects of individualism and collectivism across cultures. *Austr. J. Psychol.* 38, 257–267. doi: 10.1080/00049538608259013

Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M., Bélanger, J. J., et al. (2018). The road to extremism: field and experimental evidence that significance loss-induced need for closure fosters radicalization. *J. Pers. Soc. Psychol.* 114:270. doi: 10.1037/pspi0000111

Wheatley, M. J. (2007). Leadership of self-organized networks, lesson from the war on terror. *Peform. Inform. Improve. Quart.* 20, 59–66. doi: 10.4278/ajhp.120912-QUAN-443

Whitehouse, H., Yustisia, W., Putra, I. E., Kavanagh, C., and Rufaedah, A. (2019). The role of religious fundamentalism and tightness-looseness in promoting collective narcissism and extreme group behavior. *Psychol. Religion Spirituality*

Wiktorowicz, Q. (2005). *Radical Islam rising: Muslim extremism in the West. Oxford, United Kingdom*. Lanham, MD: Rowman & Littlefield.

Yamagishi, T., Cook, K., and Watabe, M. (1998). Uncertainty, trust, and commitment formation in the United States and Japan. *Am. J. Sociol.* 104, 165–194. doi: 10.1086/210005

Yuki, M. (2003). Intergroup comparison versus intragroup relationships: a cross-cultural examination of social identity theory in north american and east asian cultural contexts. *Soc. Psychol. Quart.* 66, 166–183.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Milla, Hudiyana, Cahyono and Muluk. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

HYPOTHESIS AND THEORY
published: 24 March 2020
doi: 10.3389/fpsyg.2020.00524

Onlife Extremism: Dynamic Integration of Digital and Physical Spaces in Radicalization

Daniele Valentini[1], Anna Maria Lorusso[2]* and Achim Stephan[1]*

[1] Institute of Cognitive Science, Osnabrück University, Osnabrück, Germany, [2] Department of Philosophy and Communication, Bologna University, Bologna, Italy

This article argues that one should consider online and offline radicalization in an integrated way. Occasionally, the design of some counter-measure initiatives treats the internet and the "real" world as two separate and independent realms. New information communication technologies (ICTs) allow extremists to fuse digital and physical settings. As a result, our research contends that radicalization takes place in *onlife* spaces: hybrid environments that incorporate elements from individuals' online and offline experiences. This study substantiates this claim, and it examines how algorithms structure information on social media by tracking users' online and offline activities. Then, it analyzes how the Islamic State promoted *onlife* radicalization. We focus on how the Islamic State used Telegram, specific media techniques, and videos to connect the Web to the territories it controlled in Syria. Ultimately, the article contributes to the recalibration of the current debate on the relationship between online and offline radicalization on a theoretical level and suggests, on a practical level, potential counter measures.

Keywords: radicalization, algorithms, internet, onlife, media, Islamic State

OPEN ACCESS

Edited by:
Angel Gomez, National University of Distance Education (UNED), Spain

Reviewed by:
Magdalena Wojcieszak, University of California, Davis, United States
Csilla Horvath, Radboud University Nijmegen, Netherlands

***Correspondence:**
Daniele Valentini
dvalentini@uni-osnabrueck.de
Anna Maria Lorusso
annamaria.lorusso@unibo.it

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *02 August 2019*
Accepted: *05 March 2020*
Published: *24 March 2020*

Citation:
Valentini D, Lorusso AM and Stephan A (2020) Onlife Extremism: Dynamic Integration of Digital and Physical Spaces in Radicalization. Front. Psychol. 11:524. doi: 10.3389/fpsyg.2020.00524

INTRODUCTION

The police stop a young adult at Bologna's airport with downloaded Islamic State (ISIS) propaganda on his phone. Upon the detainee's release, he reaches out to the Italian branch of the radical platform *al-Mohajiroun*, and he is subsequently re-routed to London where the network holds its headquarters. After prolonged online contact, and a real-world friendship with his future co-conspirators, he decides to act; he kills 8 people during the so-called London Bridge attack. This description pictures the radicalization of Youssef Zaghba, a Moroccan-Italian terrorist who died in 2017. To what extent did he develop violent tendencies while socializing in cafés and parks? What role did digital chatrooms, and their contents, play in funneling his radicalization?

Radicalization is a contested concept with some definitional loopholes. But in this paper, we will stick to the growing consensus among scholars who consider it as a process of developing extremist beliefs and ideas while condoning the use of violence as legitimate (McCauley and Moskalenko, 2008). The exponential growth of new information communication technologies (ICTs) has prompted experts to consider their impact on terrorist activity. Subsequently, the internet has become the hallmark of modern radicalization patterns. Whether it is the easiness of signing up to homogeneous radical communities, unobstructed access to a deluge of violent footage, or the possibility to reach a global audience, the Web has become a hotbed for terrorist recruitment.

However, offline bonds and social circles exert a massive, and sometimes crucial, influence on people's violent leanings, too (Weimann, 2015; Winter, 2015).

Research recognizes the importance of questions that enquire how, and where, radicalization takes place. However, the analysis of physical and digital relations in radicalization has also yielded conflicting results and unproductive countermeasures. Multiple authors have suggested that unsatisfactory results may be connected to a dearth of empirical data and to the formation of a "false dichotomy" that views online engagements as separate from physical relations (Ducol, 2015). This paper will follow their steps: it will argue that radicalization is better conceived as a process that unfolds online, and offline, simultaneously in a hybrid *onlife* space, to use an expression coined by Floridi (2015). This *onlife* space seamlessly integrates elements that pertain to both the online and offline spheres.

Before moving on, we think it is useful to delineate at the outset some theoretical and methodological aspects that define the scope of the present study. On the one hand, the *onlife* approach we adopt is to be considered as the latest stage of a research branch that has and keeps calling for the integration of digital and real-world features in detailing out both radicalization patterns and possible countermeasures (section Online vs. Offline Radicalization: A "False Dichotomy"; Wojcieszak, 2009, 2010; Scrivens et al., 2019). On the other hand, we will delve into these problems focusing on a particular kind of terrorism-related radicalization: ISIS. We consider this case particularly interesting for the ways in which ISIS has set its radicalization practices in-between online and offline experience, thus providing a benchmark for the analysis of the contemporary strategic attunement between these two dimensions. Moreover, even though we single out different radicalization contexts in which an *onlife* framework may yield fruitful results – and other authors have recently applied it to examine lone actor cases (Fisogni, 2019) – the specifics we take into account for ISIS' *onlife* radicalization cannot automatically be generalized to other radicalization forms. In fact, the aim of the present study is mostly theoretical: we want to outline, through the case studies analysis, some helpful concepts and attributes to better understand the *onlife* character of ISIS' radicalization strategy. Further research is needed to see, if and how, our contribution may be extended to other radicalization contexts.

In methodological terms, we adopt a qualitative approach for the analysis of our corpus. We will carry out a textual analysis of a selection of ISIS recruitment videos, looking at the narrative values they shape and at the mechanisms they use to merge the reality and the textual level. Following a textual-semiotic approach, we consider texts (in our case videos) not to be pure representations of something, but actors intervening in complex processes that confer sense to the world we live in and to the actions we perform. This is exactly why it is important to look at texts: they give us behavior models, shape our beliefs, and offer an image of us which, very easily, influences our actions. Any text, according to the semiotic approach (Lorusso, 2015; Walsh Matthews, 2017), works in this way, but this mechanism of "return-effect" is even more evident in the *onlife* dimension of social media. Similar to the current standard in textual analysis, our corpus has no statistical relevance. We choose these texts because they seem particularly "dense" and significant, to underline some typical discursive mechanisms of the dynamic online-offline relationship in today's radicalization. Furthermore, they can also provide guidelines for the construction of corpuses in other radicalization contexts. Ultimately, we think that an *onlife* conception of radicalization can help counter-terrorism specialists develop tailored strategies to curb the appeal of extremist groups and terrorist organizations.

In the following we proceed as follows: in the first section, we problematize the separation between online and offline radicalization by first reviewing previous studies that caution policymakers and experts against the ineffectiveness of such separation (Turpin-Petrosino, 2002; Bliuc et al., 2019); then we use recent empirical results, which show that the distinction is a false dichotomy (Neumann, 2013; Gill et al., 2017). In the second section, we consider how algorithmic data-gathering activity that manages digital communications on social media platforms benefits from users' previous online history and offline interactions. We examine how algorithms structure radicalization-oriented echo-systems that merge virtual habits with offline features. In such *onlife* environments users complete their radicalization process surrounded by like-minded associates and consensual media footage. In the third section we use the *onlife* framework to describe ISIS' radicalization strategies: ISIS provided its potential recruits with interacting physical and virtual environments (caliphates) that substantiated its own *us* vs. *them* ideology. Here, "caliphate" refers to the swath of land that ISIS controls (physical caliphate), and to the internet spaces that ISIS exploits to broadcast its state-building project (digital caliphate) (Atwan, 2015). Scholars described the capability of cross-cutting the events happening in both the digital and the physical caliphates as one of the distinctive features at the basis of ISIS' radicalization success (Winter, 2015, 2018). We argue that the intersection of a physical entity and a digital cognate stresses the *onlife* character of ISIS' recruitment strategy. This, however, must be considered as an ISIS-specific maneuver that may have a poor application range. In fact, to the best of our knowledge, no other terrorist organization or extremist movement – be it right-wing, left-wing or religious – has geared its members toward violence using two co-sustaining spaces in the same way ISIS did. Nevertheless, sociopsychological studies and recent reports highlight that far-right movements manipulate the concept of homeland and create white-only online habitats along ISIS lines (Mols and Jetten, 2014; Conway et al., 2019) but their operations are not the same as the *onlife* state-building project of ISIS. The fourth section considers how services offered by instant-messaging applications replicate, and reinforce, the affiliative dynamics that underlie the radicalization of small, isolated cliques. Specifically, we examine how Telegram's patrolled chatrooms, and encrypted secret chats, offer extremists protected locations to foster their radicalization. The final section uses a representative narrative corpus – in the sense mentioned above – to analyze how ISIS has been able to conjugate the *onlife* environment by implementing a multitude of reality-like effects that are scattered throughout its videos.

ONLINE VS. OFFLINE RADICALIZATION: A "FALSE DICHOTOMY"

The so-called Web 2.0[1] and further versions, and new ICTs, have been game-changers in radicalization's layout, but their effects do not restrict to radicalization patterns. It is evident that these technologies have deeply changed many forms of our life in general, and of recruitment in particular (from politics to social works). Similar to most companies, terrorist organizations took advantage of internet-based affordances, and they moved a great swath of their operations to the online world (Amble, 2012; Awan, 2017). Recruitment, propaganda, network-building, financing, and logistics entered the virtual arena with such a strength that King and Taylor point out that terrorism cases without a *digital footprint* have become rare (King and Taylor, 2011). As the internet's mark on radicalization processes gained traction, scholars started to debate the impact of digital environments on such processes. Some argued that consuming jihadi videos on a frequent basis exerts a facilitative effect by motivating individuals to engage in violent action (Holt et al., 2015). Others, in contrast, envisaged the internet merely as an accelerator of radicalization, but did not credit the platform with an essential role in the process (Van der Valk and Wagenaar, 2010). More recently and mostly separately, literature started to discuss radicalized individuals' relationship with both cyber interactions and with face-to-face interactions (Archetti, 2015; Klausen, 2015). While there is a growing consensus that radicalization comprises both kinds of relations, research has yielded mixed results as to the extent in which online interactions, and their physical counterparts, are interlocked in the pathways of radicalized people (Weimann, 2012; Pauwels and Schils, 2016). Scrivens et al. (2019) list a series of limitations of and provide suggestions about how the study of the internet's impact on violent extremism should progress. Among the issues they call out, two are of particular interest for our scope: first, a scarcity of primary data that facilitates a lack of evidence; second, the necessity of "drawing connections between the on- and offline worlds of violent extremists" (p. 3) and, thus, of avoiding the implementation of ineffective countermeasures developed along a false dichotomy "which artificially distinguishes cyberspace from the 'real world'" (Ducol, 2015, p. 90).

The scarcity of primary data has, of course, to do with high-risk security issues that would force experts to stay in war zones and to encounter dangerous individuals (Silke, 2004). As a result, most studies that concern the extremist use of the internet are not empirically based; an issue that affects terrorism studies in general (Sageman, 2014). With a few excellent exceptions (von Behr et al., 2013; Gill and Corner, 2015; Koehler, 2015; Gill et al., 2017), the vast majority of research – including this one – relies on secondary data and anecdotal episodes that are usually gathered from newspaper articles and other gray literature (Ducol, 2015). In so doing, the type and quality of data prevents researchers' rigorous examinations of the internet's influence in radicalization's promotion. This limitation is irrespective of whether violent exposure, or the conduits of cyber-interactions, propel the process. Conway (2017) details future investigation avenues, and remarks that the study of internet-based radicalization has been hindered by a dearth of data-driven descriptive and explanatory research. She suggests that "basic descriptive research is largely missing from this field, along with more complex theory-informed approaches" that seek "to show causal connections" (p. 78).

The other critical issue is the missing acknowledgment of the reciprocal influence that online associations, and physical bonds, bear on radicalization. Sometimes, when analyzing the trajectories of different radicalized offenders "scholars tend to conceptualize virtual spaces as autonomous from what actually happens in the "real world" and vice versa" (Ducol, 2015, p. 90; Gill et al., 2017). As a relic of Web 1.0, where the boundaries between static websites, and people's flesh-and-bone interactions were more clearly defined (Jenkins, 2006), the conception of the digital and the physical sphere as two fully-encased spaces gives a misaligned representation of the mechanisms involved in radicalization. The widespread use of such approaches in counter radicalization programs is surprising, especially if we consider that the intimate codependence between digital interactions and their possible offline spillovers has been well-established in research branches strictly connected to terrorism studies like internet and communication studies (Conroy et al., 2012). For example, Carolyn Turpin-Petrosino examined the responses of teenagers and university students to the exposure to hate groups' propaganda and their attitude toward the latter (Turpin-Petrosino, 2002). After word-of-mouth and phone contact, internet was the third most successful technique in provoking a change of attitude among users. However, 20 years later, both word-of mouth and phone calls have been incorporated into the digital world. Crucially, as we will see in section two, algorithm-based pieces of technology have created a frictionless relationship between conversations and actions happening in the real word and those taking place online. The connection between on- and offline bonds has been more explicitly investigated in a series of self-report studies by Magdalena Wojcieszak. The author underlined how both similar and dissimilar offline social ties exacerbate the ideological extremism of Neo-nazis and radical environmentalists participating in online forums (Wojcieszak, 2009, 2010). Many respondents reported that encountering diverging opinions offline made them delve even deeper into their extremist ideology with the aim of elaborating suitable counterarguments. As a result, she advised that engaging extremists with alternative perspectives might have detrimental counter-terrorism effects. Not only did her findings extend those of previous studies about the bearing of both online and offline interpersonal discussion on political civic engagement (Hardy and Scheufele, 2005; Shah et al., 2005); they were also confirmed by recent survey and longitudinal studies focusing, respectively, on the link between e-participation and a variety of offline pro-active activities (Tai et al., 2019) and on the repercussion that local riots have on the Australian white supremacy online community in terms collective beliefs, emotions and consensus (Bliuc et al., 2019).

[1]The expression Web 2.0 signals a shift in the Web structure toward online social environments where users can actively participate through the creation and dissemination of contents on multiple platforms (Beer, 2009).

These insights notwithstanding, we can observe the magnitude that the on-and-offline false dichotomy has enjoyed among violent extremism experts. On a theoretical level, the dichotomous conception has led Sageman (2008a,b) to argue that "[d]uring the past two or three years, however, face-to-face radicalization has been replaced by online radicalization. The same support and validation that young people used to derive from their offline peer groups are now found in online forums, which promote the image of the terrorist hero, link users to the online social movement, give them guidance, and instruct them in tactics" (p. 41). Likewise, Omotoyinbo (2014) outlines that "radicalization, in the age of ICT, is basically of two ramifications i.e., Offline and Online" (p. 54). On a practical level, the same reasoning has produced some questionable one-sided countermeasures, such as the FBI *Don't be a Puppet* or the campaign *Think Again Turn Away*. The former initiative, in its address of potentially radical individuals, excluded the impact of offline interactions altogether. The latter campaign was concerned only with fighting ISIS's online presence, and it did not consider its offline side-effects in stigmatizing Muslim communities in the USA (Davies et al., 2016).

Counter-terrorism experts must consider how social interactions in today's world incorporate elements that pertain to digital artifacts and to people in "real" social settings. In addition, the border between the Web and the physical world becomes fuzzier and fuzzier (Burrows, 2009; Dunbar et al., 2015). As we will explore in the next section, social networking sites, coupled with mobile devices, enable meanings, beliefs, and emotions to be concomitantly experienced in the two spheres to the point that it becomes hard to tell where the individual ends and the user begins (Floridi, 2015). Take for example the Christchurch mosque shootings in March 2019. Australian lone actor Brenton Terrant entered the building and murdered 50 people while recording his brutal attack on a head-mounted camera and broadcasted it on Facebook. In doing so, not only did he "air" a terrorist attack online that, unfortunately, inspired some copycats; his misdeed was the concrete performance of his pre-attack post that claimed how it was "time to stop shitposting and time to make a real life effort post" (Conway et al., 2019, p. 14). As the example shows, in modern extremism, the internet and physical spaces conflate in unprecedented ways. However, one should keep in mind that, the *onlife* degree in different radicalization cases – the hybridization between online and offline settings – is to be intended along a continuum. In some cases, digital and physical interactions interlock in such a way to maximize the radicalization's *onlife* magnitude, whereas in others, the role of virtual and "real-life" components is more discernible.

All in all, both theoretical and empirical studies call for a reconsideration of such a dichotomy. In terrorism research, Lohlker (2011) investigated the relationship between the internet and Al Qaeda operatives' radicalization strategies. They concluded that the aim of internet jihadis is "to make the divide between the virtual and the physical more permeable with the help of elaborate media strategies. The participants in discussions call more and more for the keyboard to be exchanged with the detonator" (p. 9–10). And this is precisely what Humam al Balawi did on December 30, 2009 when he blew himself up and claimed the life of CIA agents. Informative is the fact that in his last essay Balawi rhetorically stated: "when will my words drink from my blood!?" (in Lohlker, 2011, p. 1 3). His dreadful actions confirmed the second hypothesis of the study according to which "virtual activity creates real terrorist" (p. 64). Along similar lines, Peter Neumann cautions against the implementation of one-sided countermeasures like content removals. Such actions, for example, would be unproductive in the long run given the vast amount of platforms on which contents can be disseminated, and, most importantly, they would deprive intelligence services from gathering useful information on terrorist behavior. On the other hand, he emphasized the link between virtual and physical radicalization by predicting that terrorist organizations will carry out their radicalization project by conjugating the material portability of smartphones and the digital character of phone apps (Neumann, 2013; see section Physical Entitative Groups and Encrypted Online Networks). More recently, Gill et al. (2017), in their study that analyzes the use of the internet among 223 UK convicts on terrorism charges, are very explicit about the risks connected to the applicability of the above-mentioned dichotomy. They ultimately conclude:

> *"There is no easy offline versus online violent radicalization dichotomy to be drawn. It may be a false dichotomy. Plotters regularly engage in activities in both domains. Often their behaviors are compartmentalized across these two domains. For example, plotters may engage in face-to-face interaction regarding the ideological legitimacy of their actions while engaging in virtual communication regarding the technical specificity of bomb-making" (Gill et al., 2017, p. 114).*

The operationalization of this divide seems to stand on a slippery slope even in episodes of lone-actor terrorism. Lone-actors are defined as isolated individuals who develop an affinity for radical ideas and violent tendencies in the seclusion of their accommodations, and who avert any sort of group membership or external contact. This is why their presence and terrorist plots are so hard to anticipate and disrupt (Hoffman, 2003; Spaaij, 2010). A cursory glance at the previous definition and case studies – like Anders Breviek who murdered 77 civilians in Norway, 2011 – grants some leeway to the impression that this perpetrator typology acts solely on its own. However, a deeper inspection reveals that this is seldom the case. In a recent study, Lindekilde et al. (2019) contend that, often, these supposedly under-the-radar actors display their "leakage behavior" through the establishment, and maintenance, of interpersonal bonds with leaders, peers and, sometimes, co-conspirators. The magnitude of these relationships (or alternatively the degree of loneness) might change on a situational basis: pockets of individuals may engage only in intermittent peripheral contact, while others may showcase a higher degree of embeddedness within extremist circles. Ultimately, the contention that lone-actors decide to embark on solo terrorist missions should not divert researchers' considerations of the impact that outer relations have on lone-actors' radicalization processes (Malthaner and Waldmann, 2014). Importantly, such bonds are both virtual and physical. Physical and digital connections in lone-actors are so

intertwined that "online and offline patterns on radicalization often occur simultaneously and are mutually reinforcing, and exclusive online radicalization of isolated individuals is exceedingly rare" (Lindekilde et al., 2019, p. 5). Schuurman and colleagues based their investigation on similar conclusions, and they labeled lone-actors as "the typology that should not have been" (Schuurman et al., 2018, p. 771). Once again, contrary to popular belief, their article values the impact of virtual and physical radical milieus on lone-actors' motivation, and capacity, to carry out a terrorist attack. These findings echo Neumann and Steven's previous research, which, despite acknowledging the new radicalization potentials that are ascribed to cyberspace, continue to highlight the unquestionable influence of real-world ties in self-radicalization instances (Neumann and Stevens, 2009). Koehler provides further evidence that justifies the dismissal of this dichotomy. In his interviews, German Neonazi's answers suggest how the online, and the offline, dimensions feedback-loop into one another in terms of ideology buttressing, propaganda dissemination, and rally participation (Koehler, 2015).

While further in-depth analysis is needed to understand the extent of cyber-interactions in the promotion of politically violent acts, we will introduce a further "algorithmic" add-on as to why counter-terrorism experts should cautiously avoid such online/offline divide in the design, and implementation, of counter-narrative strategies.

ALGORITHMS AND DATAVEILLANCE: AN *ONLIFE* MEANING-MAKING MECHANISM

In this section, we argue that a technological reason as to why the offline vs. online dichotomy is due for an overhaul dwells in the systems that regulate online interactions: algorithms. Radicalization studies have allocated little attention to the principles that govern algorithmic data-gathering activity in the structure of radicalization-friendly environments. This sounds surprising, given that the US National Security Agency claimed to have nipped more than fifty terrorist attacks in the buds through the extraction of data from social media (Van Dijck, 2014). In light of media philosopher Marshall McLuhan's lesson, who already over 50 years ago declared that the medium is the message (McLuhan, 1964), we intend to show how radicalization that unfolds through social media interactions is partially constituted by the software and codes that make up the medium (Burrows, 2009). Crucially, algorithms draw intensely on user's offline resources in their predictive performance, and they render online radicalization a more "physical" or "offline" experience than it is usually thought (Cohen, 2018).

Taken at face value, we tend to picture algorithm-based systems as autonomous, efficient, platforms that carve the contours of our virtual scenery (Finn, 2017). They instantly present us with information that satisfies our search queries, interests, and desires. In addition, algorithms' operations under the surface of users' online experiences reinforce the "illusion of platform neutrality" (Gillespie, 2010; Milan, 2015, p. 3): the information that we receive on our Facebook newsfeed looks as objective as it can be. But, far from being neutral and objective, social media algorithms come inscribed with a series of biases that skew the content selection process; they determine "what there is to know and how to know it" (Bozdag, 2013; Gillespie, 2014, p. 167). Put differently, they are information-filtering systems that are preset with specific ideological proclivities and design choices, and they prime certain features while neglecting others (Finn, 2017). For instance, when algorithms scaffold the media ecology on a user's laptop, they feed on a vast amount of signals that encompass previous online history, recently contacted users, and social gestures, i.e., likes and comments (Bozdag, 2013; Gerlitz and Helmond, 2013). However, the accumulation of so-called "dataveillance" is just as important: that is, tracked information that refers to users' offline habits. This information includes location, shopping purchases, and phone calls (Degli Esposti, 2014; Van Dijck, 2014). A final important, and yet often undermined, aspect that shapes the algorithmic environment is the collection of negative media data, i.e., time spent away from the platform, or typed in – but unposted – comments (Cohen, 2018).

When all of the abovementioned ingredients are taken into account, it becomes clear that one can regard algorithm-run systems as complex, sociotechnical artifacts that interlock human-machine interactions in a continuous process of content production. In other words, these calculating vehicles represent a sophisticated instantiation of the "dynamic cognitive flows between human, animal, and machine" that constitutes the *cognisphere* that we live in Hayles (2006, p. 165). Algorithms are adaptable systems that co-evolve along with their users. Their filtering mechanisms aim to structure a mediascape that is responsive to the updated data-based profile of each user so as to maximize the time spent surfing the platform (Cheney-Lippold, 2011). Indeed, one congenital goal of social networking sites is the creation of engagement. People who usually succeed in persuading others to prolong, or resume, their online interactions – by initializing a soon-to-become viral thread for example – are deemed as soft leaders. However, this mediatic "participation by default" (Gerlitz and Helmond, 2013, p. 14) is hardly an all-algorithmic business. On the one hand, it is true that a portion of the user's digital dossier is built with data "collected passively without much effort or even awareness on the part of those being recorded" (Meyer-Schoenberger and Cukier, 2013, p. 101). On the other hand, the building of someone's digital image (datafication) requires a great amount of physical labor. A user's geolocation, network nodes' activity (friends), and user-curated information influence recommendations. In other words, the user explicitly provides metadata and tags that allow the algorithmic mechanism to shape the information it receives. For example, if I am looking for a restaurant or a car, I am much more likely to get a diner that is nearby my current position, or a car that belongs to a close friend of mine – provided that she posts a car-selling advertisement (Bozdag, 2013). The resultant outcome of this filtering operation is an immersive environment that is tailored to meet users' past, present, and anticipated tastes. Such computational customization directs users toward a personalized online experience that is equipped with deeply

ingrained relational traits. Algorithms cherry-pick contents while scanning our everyday social spheres in order to present us with a vast hodgepodge of "entry points" to stay hooked up to the platform (Willson, 2017). Furthermore, algorithms' *modus operandi* is sustained by the diffusion of portable devices: laptops and mobile phones provisioned with apps such as Facebook and Whatsapp. These apps allow algorithms to continuously structure an up-to-date datafied image of individuals. Data, in fact, might be partial and incomplete, but they are anything but raw materials (Gitelman, 2013). As soon as they are collected, data undergo a refinement progression that is purposed to design a sufficiently fine-grained user profile. This refinement progression keeps the latter entangled in the virtual infrastructure.

Social media platforms are dependent on these algorithmic systems, and they have been said to act as polarizing tools that promote exposure to pro-attitudinal contents, and easy contact, with digital like-minded networks (Dylko et al., 2017). In other words, experts maintain that new media threaten to create homogenous digital echo chambers. Individuals inhabit these chambers where only in-group consonant outputs are circulated at alternative views' expense (Sunstein, 2017). The level of algorithmic interference in the creation of echo chambers has been questioned, however. Large-scale studies measuring the impact of algorithm-suggested news on selective exposure and polarization highlight how users' choices are more influential than machine-run activities in the creation of echo chambers (Bakshy et al., 2015; Boxell et al., 2017; Beam et al., 2018). Even though we agree that environmental bias should not be overemphasized in the construction of secluded online spaces, we simultaneously stress how the context in which interactions occur should not be overlooked[2]. Here we side up with Steglich (2019) when he claims that "to blame the negative side effects of [. . .] echo chambers on individuals' decisions, and downplay the role of the algorithms [. . .] is a flawed, incomplete and dangerous conclusion. These individual decisions take place in a highly pre-structured environment [which] pre-determines the [. . .] outcome of the decisions" (p. 22). For instance, simulation studies analyzing the effects of friendship recommender systems on social media found that these platforms promote a frequent network rewiring that may lead to the creation of isolated social triads (Sasahara et al., 2019). If such triads are inhabited by radicalizing individuals, then social media algorithms could be seen as a partial contributor of violent extremism. In other words, when it comes to radicalization, a selective exposure apparatus regulates extremism-orientated online echo chambers that encase "at risk" individuals. These echo chambers are safe heavens, where violent intents – surrounded by large amounts of radical narratives – are developed and embraced (Sunstein, 2002; Atwan, 2015; Maggioni and Magri, 2015). It is true that social media companies have curbed the building and expansion of extremist echo chambers through frequent account and content removal (Berger and Morgan, 2015). Nevertheless, the multiplatform nature of the internet safeguards their survival and continuation. What is more, counter-terrorism strategists' efforts may fall on deaf ears under the very mechanisms that govern algorithmic activity. For one thing, if further information on a user's screen is based on frequently consumed content, counter-messages may never enter the mediascape of potential recruits in the first place. For another thing, even if counter-terrorism storylines "hit" their target audience, their alleged purpose might backfire. Individuals, in fact, appropriate meanings in accordance with the position that they occupy in a specific social network that is both online and offline, and during their radicalization, potential recruits usually lurk in hardline networks (Archetti, 2015). For example, the US government campaign *Think Again, Turn Away* aired in 2013, which aimed at discouraging ISIS supporters from migrating to Syria, has proved to be counter-productive; among other things, it fantasized the Caliphate as a nightmarish place of destruction. Jihadi supporters were advised not to buy a "return ticket," since they would have found only bombings and death there. In a nutshell, the campaign championed the high probability of death as a root cause to stay home. But inadvertently, uncompromising Salafist youths considered the very same death dimension on online social settings as the only way to reach the bliss of martyrdom (Katz, 2014; Van Eerten et al., 2017).

While we subscribe to the influence of online echo chambers on radicalization, we propose that online echo chambers are better considered as echo-systems that incorporate digital, and real-world, elements alike in light of the algorithms' filtering mechanism. Importantly, contents and interactions conducive to radicalization intersect artifacts, environments, and bodies in a dynamic fashion as the algorithms and the individuals seamlessly feedback loop information into each other. An ISIS French video, which involves stabbings and decapitations, in a user's recommendation list might be the combined outcome of her online consummation of similar footage in the past, her offline life in France, and her purchase of a knife a couple of days before. Admittedly, the algorithm has access to the knife purchase's information if it is made with a credit card that is connected to an online bank account. In doing so, the algorithms may register such a purchase, and it may match it with knife-related tags in the video. Moreover, mobile devices can allow me to watch, and comment, on such videos, while I am simultaneously engaged in a physical meeting with other peers.

Here and in the following, we follow the lines of Luciano Floridi and colleagues when we argue that (radicalized) individuals should be better regarded as individuals who populate an *onlife* infosphere: a new dimension that characterizes human beings in the contemporary algorithm-based era (Floridi, 2015). Floridi contends that, in this third space, "the digital is spilling over into the analog and merging with it" in unprecedented, and sometimes unforeseeable, ways (Floridi, 2007, p. 62), and suggests that "the threshold between *here (analog, carbon based, off-line)* and *there (digital, silicon-based, online)* is fast becoming blurred" (ibid. p. 63; italics in the original). *Onlife* interactions are creating *connected information organisms (inforgs)*, and they are resorting to digital and physical artifacts to go by with their lives. In our view, algorithms and portable devices are just the latest manifestation of the continuous interactive dynamics between online, and offline, dimensions. Another advantageous feature

[2]As a matter of fact we consider radicalization to be the results of recursive individual-environment interactions.

of the *onlife* dimension that could explain why terrorist groups have been so fond of the Web 2.0 is the "shift from the primacy of entities to the primacy of interaction" (Floridi, 2015, p. 63). In other words, people in this hyperconnected era establish their identities and beliefs by leveraging on multiple relationships that fluctuate primarily from *onlife* intimate groups (family, peers) and, subsequently, expand into the larger society (Floridi, 2015, p. 98). This conception fits well in the relational approaches to radicalization, whereby the process takes place "in a dynamic constellation of multiple spaces and social relationships over time" (Lindekilde et al., 2019, p. 5). Algorithms make the digital and physical settings all the more intertwined. In the next section, we will analyze how ISIS managed to intertwine the online, and offline, sphere in its recruitment process.

THE *ONLIFE* ISIS RECRUITMENT: *US* VS. *THEM*

The Islamic State has been proclaimed defunct. After a concerted military effort that lasted about 4 years, a coalition of more than sixty countries managed to quarantine this once proto-state to a handful of in-land outposts. However, what now resembles an insurgent group has been the latest uncontested protagonist of the jihadi galaxy. Over the past 5 years, an unprecedented wave of foreign fighters replenished its militia manpower, thus securing the possibility to first conquer, and later administer, a territory as big as the United Kingdom. Figures suggest that 30,000 conscripts voluntarily flocked to ISIS-controlled Syria to partake in its utopian governance project; 5,000 conscripts were of Western descent (Schmid and Tinnes, 2015). So-called returnees' recent terrorist attacks in Paris and Brussels, with a combined death toll of 132 civilians, showcase these conscripts' continued security threat. As a result, governments invested massive funds to stop this extremist human hemorrhage, and academic circles started to peruse the root causes of ISIS's appeal (Milton, 2016). A dissection of Islamic State's paraphernalia of narratives, which it weaves to lure young recruits to the so-called Caliphate, shows a distinctive feature that stitches such propaganda together. This feature concerns the presence of an overarching enemy that assails the Islamic identity (Schmid, 2015; Gartenstein-Ross et al., 2016). This ideological position is nothing new: literature that concerns social movements and intractable conflicts is replete with examples of radical groups that feel engaged in a Manichean struggle against an evil enemy, and the Islamic State is no exception (McCauley and Moskalenko, 2011; Della Porta, 2013; Halperin, 2016). From a theoretical standpoint, ISIS inherited al Qaeda's well-established ideological template and it brushed this template with convenient theological interpretations (Schmid, 2014). Indeed, Mark Sedgwick points out that the modern "jihadist account of the existing order" posits "a fundamental division between Muslims and non-Muslims, and that Muslims are suffering because of non-Muslims" (Sedgwick, 2012, p. 368). The paramount narrative of *ummah*, the imagined global community of Muslims that should be re-united under an Islamic banner away from illegitimate powers, compounds this inter-religious division (Cook, 2005; Campanini, 2008). To be a viable, and practical, concept in jihadist circles, the *ummah* presupposes the complementary existence of a non-Muslim adversarial conglomerate that has split Islamic devotees apart since time immemorial (Günther, 2014). Consequently, the Islamic State portrays itself as the bastion of the ultimate faithful that confronts the aggressive attacks of "infidels". Its manifesto encourages infidels' annihilation to secure the unadulterated continuation of the whole Muslim community. This ideological operation amounts to a black-and-white worldview granted with an *us* vs. *them* perspective where the presence of the enemy embodies an existential threat (McCants, 2015; Stern and Berger, 2015).

Burgeoning evidence suggests that adherence to such a binary and emotionally charged worldview is one of the main levels that pushes enlisters to increase the ranks of radical violent organizations (Horgan, 2014; Bronner, 2016). Relatedly, the Muslim/non-Muslim divide molds a cognitively inflexible plateau of unequivocal boundaries that is prone to stir potential recruits toward radicalization (Hogg et al., 2013). ISIS enforces this simplistic separation, and it eviscerates the potentially inconsistent motivational salience that comes from all the other socially relevant categories – gender, age, nationality, educational level, and occupation – in the name of a dogmatic, and easily applicable, religious congruity. However, if an intransigent *us* vs. *them* ideology is all it takes to persuade thousands of violent Salafists toward radicalization, this would not explain how, and why, al Qaeda – the jihadist organization *par excellence* – failed to mobilize such a critical mass. What really sets ISIS apart from its competitors is the Caliphate's unexpected announcement; a step that Bin Laden and his associates never ventured to take.

The revival of this highly revered religious-political entity as the righteous land for the Muslims allowed the 2014-branded Islamic State to experience an exception inflation of recruits. But why is that so? Surely, the Caliphate – in the pious Muslim mindset – is connected to a regime of sacred values and temporal apocalypticism that social psychologists and sociologists might engender as the acceptance of violence as a political opinion amongst hard-liners (Atran et al., 2014; Berger, 2015; Roy, 2017; Winter, 2018). Core to the present study, the proclamation of the Caliphate substantiated the *us* vs. *them ideology* with a spatial dimension that blended virtual and physical interactions. For example, in ISIS' online-magazine Dabiq (2014), al-Baghdadi proclaimed a physical proto-state whose vicissitudes and shape were tightly coupled with its digital counterpart. He thereby fueled an *onlife* radicalization process. ISIS, in fact, was quick to set foot in the digital arena: they carved out cross-platform spaces where its potential recruits could partake in its own constitution by joining the cyber-army of sympathizers and proselytizers who shared and celebrated ISIS's war victories. This is not to say that there is no distinction between online and offline. It suffices to say that the physical Caliphate's borders are now non-existent, and the living conditions in war-flagged Syria have no resemblance with the image that is fabricated by ISIS propagandists. Nonetheless, as far as recruitment goes, the making of the actual Islamic State, as the in-group physical institution, is feedback-looped into a virtual duplicate that is populated by jihadi comrades. Indeed, Islamic State is also a

multi-platform digital Caliphate where radicalization could begin and continue; it seems driven by the mutual interdependence of these two spaces (Price et al., 2014; Atwan, 2015).

Put differently, on the internet, "at risk" individuals, fostered by algorithmic mechanisms, could safely inhabit growing radicalization echo chambers that were directly connected to on-the-ground developments. Indeed, it is no exaggeration to say that ISIS *onlife* state-building project enjoyed disproportionate media coverage up to the point that some experts claimed it to be "the sole source of its appeal" (Winter, 2018, p.106). For example, studies suggest that the direct online engagements between foot soldiers that broadcasted battle segments on social media, and male users who watched and messaged them, was a paramount component in the radicalization process's escalation (Winter, 2015). Winter considers this point, and he argues how these enlisters represent the living embodiment of the actual jihadist who tips potential recruits over the edge by bridging the distance between the bedroom and the battlefield in a manner that propaganda alone simply cannot. The Twitter campaign mounted by ISIS around the death of Muath al-Kaseasbeth is another instance of how meanings, maneuvers, and beliefs crossed physical and digital settings. Before the Jordanian Pilot's execution, the Islamic State launched an online survey that asked its cyber militants for the most suitable capital punishment (Griffin, 2014). The hashtag #weallwanttoslaughtermoaz went viral in jihadist online circles, and it made online members' abilities to "have a say" in the execution process possible. Likewise, women were attracted to migrate to the Caliphate by the perspective of becoming the founding mothers and wives of a Sharia-ruled land. Inspired by communication with and pictures of women employed as nurses, teachers or police forces, hundreds of Western Muslim women flocked to Syria to live out "their religion in a congenial environment" (Peresin, 2015, p. 24). A prominent ISIS female recruiter known as Umm Ubaydah wrote that for her, as well as for others, a core reason to move to Syria was the willingness "to build an Islamic State that lives and abides by the law of Allah" (Hoyle et al., 2015, p. 12). The former description highlights the *onlife* character of ISIS' radicalization strategy. In other words, radicalized individuals could swarm an expanding digital Caliphate: an extended online environment that provided a space for individuals to do battle with the enemy, and it also presented individuals with a foretaste of expectations in Syria by partaking in the construction, and dissemination, of physical developments (Fisher, 2015). It is no coincidence, in fact, that ISIS's territorial extension, and the number of foreign fighters, goes hand-in-hand with its digital media capability and presence (Berger and Morgan, 2015; Nanninga, 2019).

At the end of this section, we will sketch some suggestions that future research may take as prompts to extend the *onlife* framework that we have outlined to the analysis of far-right movements. However, before doing so, we put forward some elements that make ISIS' *onlife* strategy ISIS-only and, thus, limit the scope of our analysis. First, we have to consider the very state-building project: ISIS managed to militarily seize and control a physical territory and ruled over it with a religious iron fist. The broadcasting of the chance to join armed battles and to implement laws and regulations is something that no other extremist organization – whether right-wing, left-wing or jihadi – can grant their members with. A clue that supports the importance of this aspect is the incredible amount of "air time" that ISIS propagandists devoted to war and victory media outputs, during its peak (Winter, 2015). Second, in spite of the contested role that the institution of the Caliphate played in the course of Islamic history, the latter is still revered by Muslims from across the West and the Middle East alike. For instance, the popularity for the resurgence of the Caliphate is made clear by a 2007 poll result from four major Muslim countries that revealed that sixty-five percent of respondents wished to live under a single Sharia-based country (Pankhurst, 2013). Beside the survey, Islamic historian Wael Hallaq penned down a detailed analysis about the differences between the modern European state and the conception of state based on Islamic sources and declared the impossibility of reconciling the two (Hallaq, 2013). His analysis provides keen insights for the examination of why the Caliphate might be highly praised by a segment of Islamic population. ISIS, on its part, seems to have taken these considerations into account and riddled its messages with powerful Caliphate-related and religious narratives that have remained surprisingly stable along the years (Kuznar, 2017).

Over the last few years, the far-right scene has developed an *onlife* radicalization project that, in some respects, resembles the tactics employed by ISIS. We notice how these movements follow the lines of violent Islamism and use specific media strategies to transfer the battleground in front of the users. Just like ISIS invited potential recruits to share battles online to later join ISIS physically, right-wing inspired lone actors stream their terrorist acts to let similarly minded individuals participate and copy what they do (the Halle synagogue shooting was inspired by the Christchurch massacre and both were available online). Furthermore, sociological and socio-psychological research has proved how extreme right-wing movements and leaders mobilize their members by evoking the narrative of an ethnically homogeneous homeland that is easily replicable online (Mols and Jetten, 2014). A growing amount of evidence, in fact, underlines how right-wing groups use internet platforms to churn out white supremacy-only spaces (Conway et al., 2019). At first glance, these *onlife* maneuvers around the notion of homeland come close to the ways in which ISIS uses the concept of Caliphate in its radicalization project. However, a blunt comparison between the two would amount to an inappropriate interpretative stretching. In fact, right-wing groups neither have a swath of land where to implement their worldview, nor is the concept of homeland deeply-ingrained in mainstream European society. Notwithstanding these differences, we envisage multiple avenues for the comparison of ISIS and far-right groups *onlife* strategies (Al-Rawi, 2018; Schwarzenegger and Wagner, 2018). One is the topic of the next section: how encrypted messaging services facilitate the *onlife* radicalization of small cliques.

PHYSICAL *ENTITATIVE* GROUPS AND ENCRYPTED ONLINE NETWORKS

We borrow Donatella della Porta's words when we say that ideological encapsulation and militant enclosure are two recurring features of the radicalization process

(Della Porta, 2013). Ideological encapsulation is the radical individuals' acceptance of blunt *us* vs. *them* reasoning. Moreover, militant enclosure signals how such individuals often mature violent leanings while they socialize in small affiliative cliques. In short, it is no exaggeration to say that radicalization is about who you know (Dalgaard-Nielsen, 2010). Malthaner's recent study analyzes the formation of the so-called Sauerland-Group, a terror cell plotting attacks in Germany. In this study, he concludes that "the group emerged from a radical network that formed within the wider *Salafist* movement and to which it remained connected during preparations for violent attacks" (Malthaner, 2014, p. 648). However, while scholars have recognized the significance of broader social networks as a receptacle of new recruits, they have also noticed that those among extremist circles progressively sever their ties with their surroundings, and they continue the radicalization in a more isolated and intimate location. This process is usually referred to as "going underground" (Della Porta, 2013; Malthaner and Waldmann, 2014; Decety et al., 2018). Social psychologist Michael Hogg suggests that the physical segregation of micro-cliques tends to produce entitative groups: closed units of individuals that are endowed with clear boundaries, internal homogeneity, and a well-defined inner structure where black-and-white ideologies, and the adoption of aggressive actions, are allowed to breed on a fertile ground (Hogg, 2012).

In fact, these insular entities of like-minded people not only provide terrorist cells with a hiding place away from the surveillance of intelligence services; they are also likely to take the radicalization process to an extreme extent through the conjoined conduits of specific cognitive, and affective, dynamics. Research has shown that exclusive social interaction in such self-confined spaces may augment the divide between in-group and out-group members up to the point that the latter get completely deprived of their humanity. These out-group members may become the worth target of harmful actions (Waytz and Epley, 2012; Kteily et al., 2016). In the case of ISIS, this dehumanization operation may possess even greater magnitude in consideration of the explicit raw treatment that they give to their victims in countless gruesome videos. In addition, entitative groups display an equivalent predilection toward in-group members. The restricted socializing setting ensures a perceived similarity among different individuals that culminates in the reciprocal development of strong affective attachments and congruent cognitive interpretations.

Recent technological advancements have found a way to substantiate similar digital dynamics, and they have opened up new avenues for private, and public, isolated communication. The use of encrypted messaging services, like Whatsapp and Telegram, allows individuals to easily exchange private texts, and other media products, in safe environments. These platforms can engage peer-to-peer, and closed group, communication without any content being leaked to undesired users or third parties. Ultimately, it appears that small cliques have settled down in a fructuous digital location to perpetuate their physical activity. Encrypted messaging services enable terrorist groups to 'transplant' their entitative organizational chart onto digital platforms. Moreover, even if we present them separately for clarity's sake, one must remember that they act in joint unison with their physical counterpart: they trigger an *onlife* radicalization process.

While radical groups' activities on mainstream social media can be considered as providing broad radical milieus that aid novices' initiation to violent Salafism, encrypted messaging services represent closed-circuit niches where hardliners can coordinate radicalizing operations in complete detachment from outgroup members (Shehabat and Mitew, 2018). As we will see, encryption contrasts with more popular platforms: it grants chatting apps with an "underground character," and it makes them particularly resilient to infiltration attempts (Bloom et al., 2017). Our analysis focuses on the app Telegram, since research has pointed to this service as the fulcrum where ISIS cyberactivists mainly rearrange their maneuvers (Yayla and Speckhard, 2017). Telegram is a free multi-platform app that guarantees secure text exchange. It was launched in August 2013 by Nikolai and Pavel Durov, the creators of VKontakte – often known as the Russian Facebook. Telegram relies on channels and chatrooms. Channels are unidirectional structures where content is posted by centralized operators, and users cannot actively comment on them. Conversely, chatrooms are more dynamical and action-oriented. They enable (groups of) users to disseminate videos, radio broadcasts, memes, and other products (Shehabat et al., 2017). Importantly, they also signal the first step toward enclosed groups of like-minded individuals. Unlike major social networks, individuals' entrances to such chatrooms require specific invitations. In this instance, these invitations are often links that are distributed directly by ISIS administrators. Moreover, most links are time-limited; they become inactive after a predetermined period (Bloom et al., 2017). This filtering mechanism allows ISIS Telegram officials to have a high selection control over the populace of such chatrooms so as to form radical conclaves. Another feature that augments the homogeneous degree of these environments concerns the relative facility to detect assorted sorts of interlopers – be it academics, journalists, or surveillance agents. Indeed, chatrooms' registration of lists of active members, and the time of the latest posted content, allows ISIS supporters to ban so-called lurkers (inactive participants). This is exactly what happened to the authors of a 2017 study who were blocked on multiple chatrooms after extended periods of inaction (Bloom et al., 2017). These algorithmically regulated chatrooms ensure the "online killing" of the enemy, and they provide members with a clear-cut in-group space in turn. Put differently, an action-oriented involvement on the user part, who must show her loyalty to the Islamic State through a constant interaction lest cybersoldiers expel her from the group, promotes radicalization in such digital locations.

However, Telegram's well-advertised algorithmic end-to-end encryption underlies the "underground" genesis of radical small cliques. Telegram applies this secrecy trait to one-to-one interactions, but research suggests that new protocols might extend this feature to the whole triad of new media communication. End-to-end encryption means that, during peer-to-peer communication, all data is exchanged only between the sender and the receiver (Shehabat et al., 2017). There is already some proof that shows perpetrators' capacities to engage other trusted individuals in secluded and secret chatrooms (Meichtry and Schechner, 2016). In addition, all the messages can

be automatically erased using a "self-destruct option" as soon as they reach their intended audience. Such a function places an investigative burden on intelligence agencies' detection activities (Bloom et al., 2017). Accordingly, Telegram allows extremists to arrange themselves in entitative virtual cliques that mirror the structure of their physical counterparts. Enemies are kept at a distance and, if tracked, they get ousted promptly. On the other hand, secluded digital proximity promotes affiliative ties among ISIS sympathizers. Crucial, though, is the cloud-based nature of Telegram, which buttresses the *onlife* trend of the radicalization process. Versatile multi-platform entry points, admittedly, engender the possibility for radicalized individuals to cut symbiotically across physical and digital borders.

RECRUITING THROUGH VIDEOS: IMMERSIVE AND REALITY-LIKE EFFECT IN ISIS PROPAGANDA

We have just seen the effectiveness of Telegram: it cuts across the dynamic boundary between online and offline radicalization experiences. However, in the Web 2.0 culture, even more traditional media solutions – like short amateur videos – have become a powerful tool of *onlife* experience. In particular, in ISIS' recruitment activity, online videos are not a secondary tool; they are one of the trademarks that foster the radicalization of foreign fighters on a worldwide scale (Sardarnia and Safizadeh, 2017). Therefore, we will examine the textual and technical strategies that are employed in some of these media outputs. Specifically, we focus on the narrative and figurative features of the "actors", on the camera use, and on the setting type[3].

Our corpus comprises of six videos that were produced by *al-Hayat Media Centre* between 2014 and 2018. Three videos belong to the "Inside the Caliphate" format; they show foreign fighters' description of their first-hand experience as soldiers of the Islamic State. The remaining videos are *nasheeds*; these files visually explain the urgency to join jihad, the life in Syria, and the treatment of the enemy. Different factors dictated our choice. First, the corpus offers a thorough picture of different *onlife* components that drive the radicalization process. Second, *al-Hayat* is the official media wing of the Islamic State, and it is involved in the production of contents that are aimed at Western audiences and recruits (our primary source of interest) (Milton, 2018). Furthermore, our analysis of videos released only by *al-Hayat* made sure that the footage was officially ISIS-branded, and that such footage was consistent in its technical features. We provide the complete list of videos at the end of this paper. We accessed all the videos on https://jihadology.net/.

As we have already said in the introduction, we are well aware of our non-statistical approach and the quantitative limits of the corpus used. Nevertheless, we think the corpus fits a textual analysis concerned with pinpointing the *onlife* character inscribed in ISIS' radicalization. In fact, in textual qualitative analysis what matters is the significance of the corpus not its representativeness on a statistical base. Just as in ethnographic analysis, the analyst aims to highlight a general anthropological problem through the focus on a very specific case.

To begin with, our analysis considers the *us* vs. *them* opposition – mentioned in section three – as a structural feature that establishes a recurrent pattern throughout the corpus. On the one hand, the *us* of the Islamic world is always depicted as plural and manifold: it portrays a world that is inhabited by many people, recognizable faces, and multiple thematic roles. These roles include soldiers, religious leaders, and fathers. Additionally, all of these characters build on an atmosphere of togetherness that is reminiscent of the *ummah* that ISIS tries to create. Physical proximity (people hugging) and coordinated movements (groups in circles around a flag) constitute this community sense. Above all, though, foreign fighters' testimonies, coupled with a massive use of close-ups, establishes the Islamic world's personalization: in short, ISIS's world is a human world. On the other hand, the *them* of the Western world is undifferentiated and depersonalized. Accordingly, enemies, such as the USA and the Soviet Union, are lumped together. Christians and Jews become interchangeable entities. Moreover, a simplistic narrative frame reduces the Western world either to its deceiving leaders or to graphs. In other words, it is as if, in the sphere of *them*, there is no "real" life and humanity. Rather, there are only powerful lying leaders. This true-false rhetoric crosses the entire corpus. Islam is not only a true doctrine; it is also an *authentic* world that is made up of active ordinary people that continuously unfold on the screen. Conversely, the West is false and corrupt – both in its values, and in its idols/leaders. In these videos, ISIS generates an Islamic humanization through their differentiation in subjectivities' constructions. Indeed, even before the ascription of explicit and positive values to Muslims themselves, life and humanness are inherently present within them. For one thing, these videos manipulate their addressees, and they call them to action in an explicit way. Additionally, they offer such a delegitimized and depreciated representation of the enemy to make "natural," and spontaneous, any type of aggressive reaction against it.

The interrelation between realism, and the immersive strategy[4] that feeds – in a certain way –radicalization's *onlife* dimension is an even more interesting factor in this corpus. As we have already said, the *onlife realm* characterizes the lives of

[3]Our textual-semiotic approach is based on Greimas (1970). The basic idea of the semiotic approach is that the internal narrative organization of each text (be it verbal or visual), creates meaning effects and these meaning effects shape our minds, our behavior, our emotions, so that they strongly condition our experience in the world. The narrative level of texts does not merely consist of the explicit elements making up the narration, but it also include the implicit developments, the implicit values, and the implicit connotations associated to some given features (i.e., if a text recurs to the image of a battle, this implies a narrative pattern made of enemies, weapons, strategy, decisional hierarchy, and so on). An in-depth look at the narrative level enables the analyst to grasp some implicit semantic elements which condition the viewer's behavior without being explicit said. This narrative approach is crucial for the whole semiotic approach to cultural dynamics (as in Lorusso, 2015).

[4]We use *immersive strategy* in the way it is intended in contemporary media studies (Lister et al., 2009; Rose, 2012). Rather than contents or stories, media today aim to produce experiences that entail the sensory stimulation of the viewer. Such sensory stimulation comprises the viewer's projection, emotional involvement and identification. A paradigmatic example of this strategy are video games and all forms of augmented reality. A last element at the basis of immersive communication is what Jenkins (2006) calls *media convergence*, i.e., the interaction between different media that produces integrated consumption flows.

us all, but it is particularly salient in the media productions that ISIS broadcasts online. ISIS' videos always adopt a realistic style where the viewer is not presented with a distant Islamic world. Contrarily, the viewer gets immersed in what we call a *reality bath*. This reality bath seems to take on two different declinations in the corpus: a *testimonial declination* (1) and a *video-ludic declination* (2) that, however, is never "unrealistic." The *testimonial declination* emerges in the videos that have a strong protagonist: a militant who explains the reasons, and the meaning, of the battle to be undertaken. The militant often shows, and quotes, the Koran. More generally, he cites the values of jihad and the importance of setting an example to others. Moreover, in order to strengthen the credibility of his battle experience, the militant's body sometimes shows the uncensored effects of the war. For example, in "Islamic State: Inside the Caliphate 6," the solider is seriously injured or irreparably crippled. Yet, his disabled condition – which exonerates him from further combat – testifies his greatness and resilience, while it implicitly invites all of those who enjoy a better physical shape to take action. Indeed, such individuals have no excuse to stay inoperative. Likewise, these videos' concreteness is another crucial aspect of such testimonies. Importantly, they are not abstract lessons in jihadist Islamic doctrine, and they are not *fatwa* interpretations. Rather, they are credible testimonies that are *authenticated* by flesh-and-bone individuals with first and last names. Relatedly, the protagonists of videos like "Islamic State: Inside the Caliphate 2," and "Islamic State: Inside the Caliphate 6," are Abu Adam – from Australia – and Abu Salih from America. These two very recognizable figures introduce their war experience by directly addressing the viewer, and they also invite the viewer to take action against the enemy. This call to arms addresses those who are either at home or in Syria. Such an invitation is very detailed, and it often comprises a list of weapons, or strategies, to carry out a successful terrorist attack. In so doing, the two fighters establish a very intimate relation with the viewer who eventually may "exit" the online video and contact them, or who may attempt to take action herself. In other words, Abu Adam and Abu Salih represent the enlisters who bridge the gap between the battlefield and the bedroom with their online solicitation, and they possibly produce offline effects in a typical *onlife* circuit (Winter, 2015)[5].

Another noteworthy feature is how the realistic scenario, in which these witnesses are immersed, is presented as their "natural environment." Most of the time, the action takes place in a Middle Eastern post-war landscape. This landscape is marked by desert ground and semi-destroyed buildings. Accordingly, the camera captures the scenery where the battle took place and where the potential recruits may find themselves fighting. Interestingly, the presence of a glorious *mujahidin* in a desolated landscape made of ruins establishes a sort of pattern throughout various videos. Indeed, the *mujahadin*'s stature suggests that jihad – irrespective of where it takes place – entails these places. This is the case in "Islamic State: Inside the Caliphate 6" and "Islamic State: Inside the Caliphate 2." In both examples, battleground realness's emphasis marks an abrupt change from abstract room walls, or caves, that other terrorist groups prefer to use as venues for video recordings. While a realistic environment erases the specificity of the venue, it also associates militancy with a concrete scenario. In a certain sense, it accustoms the target audience to a future landscape of destruction. In this way, the viewer becomes the recipient of a double-realistic manipulation[6]: a direct testimony that bears all the brutality of war on the fighters' bodies signals these recordings' *authenticity*, and a recurrent situation – detached from all abstract teachings – facilitates these videos' *concreteness*.

Instead, the declination – which we call *video-ludic* – gives up the testimony's force to strengthen the simulacrum of a *close experience* of war. It exposes the violent actions, the victims, the blood, and the bodies without hesitation in an extremely "raw" way that does not place any constraint on the contents' ethical visibility. In videos such as "Answer the Call" or "Oh Disbelievers of the World," ISIS media operators construct this uncensored visibility by using close shots and very fast editing. This option provokes an action-oriented *effect of accumulation* where concrete battle snippets are amassed together without a precise order. Dozens of decapitations, and blood-soaked knives, give the viewer an uncut image of what ISIS jihad is all about. The videos' editing speed is reminiscent of the fictional video-ludic dimension that is typical of first-person shooters and Hollywood blockbusters. They also possess an underlying emotional pattern that involves the Western spectator through disgust and excitement. However, the same fast-paced editing allows one to *expand the real*, and it allows one to multiply it in its various facets. In so doing, this technique submits the viewer in a few minutes (3 or 4 on average) to a rich range of "concrete cases" that, again, create the *immersion effect*. To put it bluntly, the multiple close-ups of throat-cutting and dismembered bodies evoke a near-pornographic characterization, which inscribes the plain emotional aspect in reality's crudeness.

In these videos, a combination of narrative strategies, such as the camera closeness and the footage speed, act out the aforementioned "bath of reality." These strategies do not allow the eye to linger on any detail; instead, they overwhelm the viewer with all the weight, and the violence, of plain reality. Unlike Hollywood films, these videos portray the death of *real* human beings – even if the fast editing somehow mitigates this effect. In these videos, ISIS media productions do not leave anything undefined. Potential recruits are seduced with *the proof of a concrete experience* – whether painful or violent – that is testified by injured, but resilient, *mujahidin* of which the recruit aims to become a mirror image. Relatedly, the word "example" recurs several times in these videos. On-the-ground jihadists are, and must set, an example for both close radicalizing peers, and they are also examples for distant vulnerable enemies.

Media productions' depictions of normality is another interesting, and perhaps counterintuitive, feature that ISIS uses to draw its online recruits to Syria. In videos such as "Islamic State: Inside the Caliphate 5" or "Our State is Victorious," we

[5]We cannot neglect the potential simulacrality of these enlisters. In fact, the whole recording could be fake or carefully performed – a sort of make-believe.

[6]According to Greimas (1970), every text or media product entails, first and foremost, a manipulation of the addressee to make her believe what the text supports. Along these lines, *manipulation* is not a negative discursive aspect; it is rather, a necessary narrative phase that shows how there cannot be neutral or unbiased texts.

find no "exceptional man," no abstract model, and no special life. Gestures and moments are common and everyday. For example, daily scenes where children run through the streets, and where ordinary men talk and clean their weapons, are shot with fixed – or disorderly moving – cameras, create an *effect* of amateurism that aims to convey spontaneity, authenticity, and sincere initiative impulse. Ultimately, potential online members see neither an abstract recruitment protocol nor a spectacle of exceptions. Rather, they take a reality bath in their future offline world.

CONCLUSION

Radicalization is a complex phenomenon. New technologies, and especially the internet, affect the violent trajectories of different terrorist offenders more and more frequently. However, building on previous research, our study suggests that, when one considers internet-based radicalization, the sphere of digital engagements should not be treated as separate from physical interactions. Rather, radicalization processes evolve, and develop, by integrating elements that pertain to both. This happens, for example, in the construction of online social environments. Here, the interaction between users and algorithm-based platforms structures radicalization-oriented echo chambers by incorporating users' online, and offline, information simultaneously. Consequently, we argue that radicalization should be seen to take place in *onlife* echo systems: hybrid locations where users' online interactions are partially determined by their everyday physical behavior and vice versa. Dataveillance and portable devices, in fact, establish a 24/7 cycle where radicalization can dynamically unfold on Facebook pages and in private houses. The awareness of online communication's integration with offline experience has led ISIS to exploit the radicalization potential of the *onlife* dimension. Such exploitation has occurred on mainstream social media and on Telegram. In these hybrid echo-systems, potential recruits can radicalize with the help of like-minded peers and consensual media products. Relatedly, ISIS has been very keen to design compelling videos: these videos connect the viewer directly to on-the-ground foreign fighters. The latter provide a concrete testimony of jihadi life; they close the gap between the bedroom and the battlefield, and they can tip recruits over the edge in turn. Here we should not think of any media-reality determinism. Instead, we should consider how the projective media potential of these heroic figures, which explicitly invite one to follow their lead, fosters radicalization. To highlight this pressing aspect, we have adopted a textual approach that investigated how ISIS has leveraged on the soldier-viewer *onlife* relationship to build a communicative dimension where manipulation and identification are the cornerstones that push potential recruits toward violence. With regard to this point, we think that the combination of existing and new narrative approaches represents a fruitful way to better design counter-radicalization programs by exposing ever-evolving *onlife* features of violent extremism.

The present study represents a first step toward a reframing of radicalization as a complex *onlife* process that surely needs further elaboration. Indeed, our ISIS-centered analysis presents some peculiarities that may limit its extension to other radicalization contexts. On the one hand, ISIS has been the only terrorist actor, so far, that has coupled the efficacy of its online presence with the administration of a physical Caliphate. The possibility of branding its *onlife* character around the broadcast of exciting war footage and day-to-day governance might lie at the basis of ISIS' success and is out of reach for other extremist organizations with different political or religious agendas. On the other hand, our case studies and text-based methodology have no statistical relevance and do not offer explicit guidelines for a systematic implementation in current counter-radicalization programs. This is why we encourage follow-up content analysis and longitudinal studies on extremists' online and offline behavior to complement this rather new approach. Furthermore, we advocate an interdisciplinary effort aimed at distinguishing between the various algorithm types that regulate users' activities on different platforms; this is an essential step if any counter-radicalization intervention is to be successful. Nonetheless, despite recognizing its restrictions and within the limits of available empirical data, our research has shown the intertwinement between the online and offline realms in today's violent extremism. Most importantly, it has laid the basis for new approaches to update current intervention strategies. As regard to this point, we would like to provide some recommendations for the development of future de-radicalization programs that take the *onlife* character of radicalization into account: (1) one-sided measures that exclude either the offline or the online side of radicalization should be avoided – the development of grids to evaluate whether both realms have been considered may be a helpful technique; (2) we highly encourage violent extremism scholars to incorporate and closely monitor the findings and methods employed in related research branches around the relationship between digital interactions and offline behavior and vice versa; as a matter of fact, the tight effects of internet participation on physical activities among mainstream population is well-established among internet study experts; adapted to violent extremism such effects could provide new insights to be included in counter-radicalization efforts; (3) to better grasp the ways in which online and offline components intertwine in the process of radicalization, governments and organizations should partner up with private social media companies and demand for explanatory tools that account for the local layout of a user's newsfeed. In short, platforms should provide clear reasons as to why their algorithms are presenting users with those specific contents and friends' choices (Reed et al., 2019); (4) participants involved in de-radicalization programs and their friends could take part in experiments of content selection on social media. Coupled with follow-up self-reports, these experiments could shed new light on the interrelation between individuals and algorithms in the radicalization process. However, we recognize that a clear picture of dynamics that are involved in *onlife* locations is a difficult task, particularly in the case of an "underground process" like radicalization. *Onlife* environments change by the hour: algorithmic data-gathering activity constantly updates an ever-increasing user's

datafied image. In other words, what regulates my *onlife* echo-system today may be different from what regulates my *onlife* system tomorrow.

AUTHOR CONTRIBUTIONS

DV, AL, and AS contributed to build the hypotheses that underlie this study. DV wrote the article, except the chapter "Recruiting through Videos", which was written by AL, and the conclusion, which was written by DV and AL. DV, AL, and AS together were in charge of subsequent revisions.

FUNDING

The article was supported by the DFG Research Training Group "Situated Cognition" (GRK-2185/1).

ACKNOWLEDGMENTS

We would like to thank the members of the Reading Club of the Institute of Cognitive Science at Osnabrück University for precious and constructive feedbacks. We would also like to thank the proofreader for language editing.

REFERENCES

Al-Rawi, M. (2018). Video games, terrorism and ISIS's jihad 3.0. *Terror. Polit. Viol.* 30, 740–760. doi: 10.1080/09546553.2016.1207633

Amble, J. C. (2012). Combating terrorism in the new media environment. *Stud. Conf. Terror.* 35, 339–353. doi: 10.1080/1057610X.2012.666819

Archetti, C. (2015). Terrorism, communication and new media: explaining radicalization in the digital age. *Perspect. Terror.* 9, 49–59.

Atran, S., Sheikh, H., and Gomez, A. (2014). For cause and comrade: devoted actors and willingness to fight. *Cliodynamics* 5, 41–57. doi: 10.21237/C7clio5124900

Atwan, A. B. (2015). *Islamic State: The Digital Caliphate*. London: Saqi Books.

Awan, I. (2017). Cyber-extremism: Isis and the power of social media. *Soc. Sci. Public Policy* 54, 138–149. doi: 10.1007/s12115-017-0114-0

Bakshy, E., Messing, S., and Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on Facebook. *Science* 348, 1130–1132. doi: 10.1126/science.aaa1160

Beam, M. A., Hutchens, M. J., and Hmielowski, J. D. (2018). Facebook news and (de)polarization: reinforcing spirals in the 2016 US election. *Inform. Commun. Soc.* 21, 940–958. doi: 10.1080/1369118x.2018.1444783

Beer, D. (2009). Power through the algorithm? participatory web cultures and the technological unconscious. *New Media Soc.* 11, 985–1002. doi: 10.1177/1461444809336551

Berger, J. M. (2015). The metronome of apocalyptic time: social media as carrier wave for millenarian contagion. *Perspect. Terror.* 9, 61–71.

Berger, J. M., and Morgan, J. (2015). *The ISIS Twitter Census: Defining and Describing the Population of ISIS Supporters on Twitter*. Washington, DC: The Brookings Project.

Bliuc, A. M., Betts, J., Vergani, M., Iqbal, M., and Dunn, K. (2019). Collective identity changes in far-right online communities: the role of offline intergroup conflict. *New Media Soc.* 21, 1770–1786. doi: 10.1177/1461444819831779

Bloom, M., Tiflati, H., and Horgan, J. (2017). Navigating ISIS's preferred platform: telegram. *Terror. Polit. Viol.* 31, 1242–1254. doi: 10.1080/09546553.2017.1339695

Boxell, L., Gentzkow, M., and Shapiro, J. M. (2017). Greater internet use is not associated with faster growth in political polarization among US demographic groups. *Proc. Natl. Acad. Sci. U.S.A.* 114, 10612–10617. doi: 10.1073/pnas.1706588114

Bozdag, E. (2013). Bias in algorithmic filtering and personalization. *Ethics Inform. Technol.* 15, 209–227. doi: 10.1007/s10676-013-9321-6

Bronner, G. (2016). *La Pensée Extrême: Comment des Hommes Ordinaires Deviennent des Fanatiques*. Paris: Presses Universitaires de France.

Burrows, R. (2009). "Afterword: urban informatics and social ontology," in *Handbook of Research on Urban Informatics*, ed. M. Foth (Hershey, PA: Information Science Reference), 450–454. doi: 10.4018/978-1-60566-152-0.ch030

Campanini, M. (2008). *Ideologia e Politica nell'Islam: Fra Utopia e Prassi*. Bologna: Il Mulino.

Cheney-Lippold, J. (2011). A new algorithmic identity. soft biopolitics and the modulation of control theory. *Cult. Soc.* 28, 164–181. doi: 10.1177/0263276411424420

Cohen, J. N. (2018). Exploring echo-systems: how algorithms shape immersive media environments. *J. Media Liter. Educ.* 10, 139–151. doi: 10.23860/jmle-2018-10-2-8

Conroy, M., Feezell, J. T., and Guerrero, M. (2012). Facebook and political engagement: a studyof online political group membership and offline political engagement. *Comput. Hum. Behav.* 28, 1535–1546. doi: 10.1016/j.chb.2012.03.012

Conway, M. (2017). Determining the role of the internet in violent extremism and terrorism: six suggestions for progressing research. *Stud. Conf. Terror.* 40, 77–98. doi: 10.1080/1057610X.2016.1157408

Conway, M., Scrivens, R., and Macnair, L. (2019). *Right-Wing Extremists' Persistence Online Presence: History And Contemporary Trend*. The Hauge: International Center for Counter-Terrorism.

Cook, D. (2005). *Understanding the Jihad*. Berkeley: University of California Press.

Dabiq (2014). *The World Has Divided into Two Camps." Dabiq 1*. Available online at: https://jihadology.net/2014/07/05/al-%E1%B8%A5ayat-media-center-presents-a-new-issue-of-the-islamic-states-magazine-dabiq-1/ (accessed May 2, 2019).

Dalgaard-Nielsen, A. (2010). Violent radicalization in Europe: what we know and what we do not know. *Stud. Conf. Terror.* 33, 797–814. doi: 10.1080/1057610X.2010.501423

Davies, G., Neudecker, C., Oullet, M., Boucherd, M., and Ducol, B. (2016). Toward a framework understanding of online programs for countering online extremism. *J. Deradic.* 6, 51–86.

Decety, J., Pape, R., and Workman, C. (2018). A multilevel social neuroscience perspective on radicalization and terrorism. *Soc. Neurosci.* 13, 511–529. doi: 10.1080/17470919.2017.1400462

Degli Esposti, S. (2014). When big data meet dataveillance: the hidden side of analytics. *Surveill. Soc.* 12, 209–225. doi: 10.24908/ss.v12i2.5113

Della Porta, D. (2013). *Clandestine Political Violence*. Cambridge: Cambridge University Press.

Ducol, B. (2015). "A Radical sociability: in defense of an online/offline multidimensional approach to radicalization," in *Social Networks, Terrorism and Counter-Terrorism: Radical and Connected*, ed. M. Bouchard (New York, NY: Routledge), 82–104.

Dunbar, R. I. M., Aranboldi, V., Conti, M., and Passarella, A. (2015). The structure of online social networks mirrors those in the offline world. *Soc. Netw.* 43, 39–47. doi: 10.1016/j.socnet.2015.04.005

Dylko, I., Dolgov, I., Hoffman, W., Eckhart, N., Molina, M., and Aaziz, O. (2017). The dark side of technology: an experimental investigation of the influence of customizability technology on online political selective exposure. *Comput. Hum. Behav.* 73, 181–190. doi: 10.1016/j.chb.2017.03.031

Finn, E. (2017). *What Algorithms Want: Imagination in the Age of Computing*. Boston: MIT Press.

Fisher, A. (2015). Swarmcast: how jihadist networks maintain a persistent online presence. *Perspect. Terror.* 9, 3–20.

Fisogni, P. (2019). Cyber terrorism and self-radicalization – emergent phenomena of onlife age: an essay through the general system theory. *Intern. J. Cyber Warf. Terror.* 9, 21–35. doi: 10.4018/ijcwt.2019070102

Floridi, L. (2007). A look into the future of ICTs on our lives. *Inform. Soc.* 23, 59–64. doi: 10.1080/01972240601059094

Floridi, L. (2015). "Hyperhistory and the philosophies of information policies," in *The Onlife Manifesto: Being Human in a Hyperconnected Era*, ed. L. Floridi (London: Springer), 51–63.

Gartenstein-Ross, D., Barr, N., and Moreng, B. (2016). *The Islamic State's Global Propaganda Strategy*. The Hauge: International Center for Counter-Terrorism.

Gerlitz, C., and Helmond, A. (2013). The like economy: social buttons and the data-intensive web. *New Media Soc.* 15, 1348–1365. doi: 10.1177/1461444812472322

Gill, P., and Corner, E. (2015). "Lone-actor terrorist use of the internet and behavioural correlates," in *Terrorism Online: Politics, Law, Technology and Unconventional Violence*, eds L. Jarvis, S. Macdonald, and T. M. Chen (London: Routledge), 35–53.

Gill, P., Corner, E., Conway, M., Thorton, A., Bloom, M., and Horgan, J. (2017). Terrorist use of the internet by the numbers: quantifying behaviors, patterns and processes. *Criminol. Public Policy* 16, 99–117. doi: 10.1111/1745-9133.12249

Gillespie, T. (2010). The politics of platforms. *New Media Soc.* 12, 347–364. doi: 10.1177/1461444809342738

Gillespie, T. (2014). "The relevance of algorithms," in *Media Technologies: Essays on Communication, Materiality and Society*, eds T. Gillespie, P. Boczkowski, and K. Foot (Cambridge, MA: MIT Press), 167–194. doi: 10.7551/mitpress/9780262525374.003.0009

Gitelman, L. (ed.) (2013). *Raw Data is an Oxymoron*. Cambridge MA: MIT Press.

Greimas, A. J. (1970). *On Meaning: Selected Writings in Semiotic Theory*. Minnesota: University of Minnesota Press.

Griffin, A. (2014). *ISIS Militants Using Twitter to Ask for Suggestions on How to Kill Jordanian Pilot. The Independent, December 30*. Available online at: https://www.independent.co.uk/life-style/gadgets-and-tech/news/isis-polls-twitter-for-gruesome-suggestions-of-how-to-kill-jordanian-pilot-9949550.html (accessed May 8, 2019).

Günther, C. (2014). Obey the emerging caliphate: the ideological framework of the 'Islamic State' in Iraq and the Levant. *Orient Jg.* 55, 16–21.

Hallaq, W. B. (2013). *The Impossible State: Islam, Politics, and Modernity's Moral Predicament*. New York, NY: Columbia University Press.

Halperin, E. (2016). *Emotions in Conflict: Inhibitors and Facilitators in Peace Making*. New York, NY: Routledge.

Hardy, B. W., and Scheufele, D. A. (2005). Examining differential gains from internet use: comparing the moderating role of talk and online interactions. *J. Commun.* 55, 71–84. doi: 10.1111/j.1460-2466.2005.tb02659.x

Hayles, N. K. (2006). Unfinished work: from cyborg to the cognisphere. *Theory Cult. Soc.* 23, 159–166. doi: 10.1177/0263276406069229

Hoffman, B. (2003). *Al Qaeda, Trends in Terrorism, and Future Potentialities: An Assessment*. Santa Monica, CA: RAND.

Hogg, M. (2012). "Self-uncertainty, social identity, and the solace of extremism," in *Extremism and the Psychology of Uncertainty*, eds M. Hogg, and D. Blaylock (Oxford: Blackwell Publishing Ltd), 19–35. doi: 10.1002/9781444344073.ch2

Hogg, M., Kruglanski, A., and van den Bos, K. (2013). Uncertainty and the roots of extremism. *J. Soc. Issues* 69, 407–418. doi: 10.1111/josi.1202

Holt, T., Freilich, J. D., Chermak, S., and McCauley, C. (2015). Political radicalization on the internet: extremist content, government control, and the power of victim and jihad videos. *Dyn. Asymmetr. Conf.* 8, 107–120. doi: 10.1080/17467586.2015.1065101

Horgan, J. (2014). *The Psychology of Terrorism*, 2nd Edn, New York, NY: Routledge.

Hoyle, C., Bradford, A., and Frenett, R. (2015). *Becoming Mulan? Female Western Migrants to ISIS*. London: Institute for Strategic Dialogue.

Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press.

Katz, R. (2014). *The State Department's Twitter War With ISIS is Embarrassing. Time, September 16*. Available online at: https://time.com/3387065/isis-twitter-war-state-department/ (accessed May 5, 2019).

King, M., and Taylor, D. M. (2011). The radicalisation of homegrown jihadists: a review of theoretical models and social psychological evidence. *Terror. Polit. Viol*. 23, 602–622. doi: 10.1080/09546553.2011.587064

Klausen, J. (2015). Tweeting the jihad: social media networks of western foreign fighters in Syria and Iraq. *Stud. Conf. Terror.* 38, 1–22. doi: 10.1080/1057610X.2014.974948

Koehler, D. (2015). The radical online: individual radicalization processes and the role of the internet. *J. Deradic.* 1, 116–134.

Kteily, N., Hodson, G., and Bruneau, E. (2016). They see us as less than human: metadehumanization predicts intergroup conflict via reciprocal dehumanization. *J. Pers. Soc. Psychol.* 110, 343–370. doi: 10.1037/pspa0000044

Kuznar, L. (2017). The stability of the Islamic State (IS) narrative: implications for the future. *Dyn. Asymmet. Conf.* 10, 40–53. doi: 10.1080/17467586.2017.1347694

Lindekilde, L., Malthaner, S., and O'Connor, F. (2019). Peripheral and embedded: relational patterns of lone-actor terrorist radicalization. *Dyn. Asymmetr. Conf.* 12, 20–41. doi: 10.1080/17467586.2018.1551557

Lister, M., Dovey, J., Giddings, S., Grant, I., and Kelly, K. (2009). *New Media. A Critical Introduction*, 2nd Edn, New York, NY: Routledge.

Lohlker, R. (ed.) (2011). *New Approaches to the Analysis of Jihadism: Online and Offline*. Vienna: Vienna University Press.

Lorusso, A. M. (2015). *Perspectives on Semiotics of Culture*. New York, NY: Palgrave-McMillan.

Maggioni, M., and Magri, P. (2015). *Twitter e Jihad. La Comunicazione dell'Isis*. Novi Ligure: Epokè.

Malthaner, S. (2014). Contextualizing radicalization: the emergence of the "Sauerland-group" from radical networks and the salafist movement. *Stud. Conf. Terror.* 37, 638–653. doi: 10.1080/1057610X.2014.921767

Malthaner, S., and Waldmann, P. (2014). The radical milieu: conceptualizing the supportive social Environment of terrorist groups. *Stud. Conf. Terror.* 37, 979–998. doi: 10.1080/1057610X.2014.962441

McCants, W. (2015). *The ISIS Apocalypse: The History, Strategy, and Doomsday Vision of the Islamic State*. New York: St. Martin's Press.

McCauley, C., and Moskalenko, S. (2008). Mechanisms of political radicalization: pathways toward terrorism. *Terror. Polit. Viol.* 20, 415–433. doi: 10.1080/09546550802073367

McCauley, C., and Moskalenko, S. (2011). *Friction: How Radicalization Happens to Them and Us*. Oxford: Oxford University Press.

McLuhan, M. (1964). *Understanding Media: The Extensions of Man*. New York, NY: McGraw Hill.

Meichtry, S., and Schechner, S. (2016). *Wall Street Journal*. Available online at: https://www.wsj.com/articles/how-islamic-state-weaponized-the-chat-app-to-direct-attacks-on-the-west-1476955802 (accessed June 3, 2019).

Meyer-Schoenberger, V., and Cukier, K. (2013). *Big Data. A Revolution that will Transform how We Live, Work, and Think*. London: John Murray Publishers.

Milan, S. (2015). When algorithms shape collective action: social media and the dynamics of cloud protesting. *Soc. Media Soc.* 1, 1–10. doi: 10.1177/2056305115622481

Milton, D. (2016). *Communication Breakdown: Unravelling the Islamic State's Media Efforts*. West Point, NY: Combatting Terrorism Center.

Milton, D. (2018). *Pulling Back the Curtain: an Inside Look at the Islamic State's Media Organization*. West Point, NY: Combatting Terrorism Center at West Point.

Mols, F., and Jetten, J. (2014). No guts, no glory: how framing the collective past paves the way for anti-immigrant sentiments. *Intern. J. Intercult. Relat.* 43, 74–86. doi: 10.1016/j.ijintrel.2014.08.014

Nanninga, P. (2019). *Branding a Caliphate in Decline: The Islamic State's Video Output* (2015-2018). The Hauge: International Center for Counter-Terrorism.

Neumann, P. (2013). Options and strategies for countering online radicalization in the United States. *Stud. Conf. Terror.* 36, 431–459. doi: 10.1080/1057610x.2013.784568

Neumann, P., and Stevens, T. (2009). *Countering Online Radicalisation: A Strategy for Action*. London: International Centre for the Study of Radicalization and Political Violence.

Omotoyinbo, F. R. (2014). Online radicalisation: the net or the netizen? *Soc. Technol.* 1, 51–61. doi: 10.13165/ST-14-4-1-04

Pankhurst, R. (2013). *The Inevitable Caliphate? A History of the Struggle for Global Islamic Union, 1924 to the Present*. London: Oxford University Press.

Pauwels, L., and Schils, N. (2016). Differential online exposure to extremist content and political violence: testing the relative strength of social learning and competing perspectives. *Terror. Polit. Viol.* 28, 1–29. doi: 10.1080/09546553.2013.876414

Peresin, A. (2015). Fatal attraction: western muslimas and ISIS. *Perspect. Terror.* 9, 21–38.

Price, B., Milton, D., Lahoud, N., and al-Ubaydi, M. (2014). *The Group that Calls itself a State: Understanding the Evolution and Challegens of the Islamic State*. West Point, NY: Combatting Terrorism Center at West Point.

Reed, A., Whittaker, J., Votta, F., and Looney, S. (2019). *Radical Filter Bubbles: Social Media Personalization Algorithms And Extremist Content*. London: Global Research Network on Terrorism and Technology.

Rose, F. (2012). *The Art of Immersion: how the Digital Generation is Remaking Hollywood, Madison Avenue and the Way we Tell Stories*. New York, NY: Norton.

Roy, O. (2017). *Jihad and Death: The Global Appeal of Islamic State*. London: C. Hurst & Co.

Sageman, M. (2008a). *Leaderless Jihad: Terror Networks in the Twenty-First Century*. Philadelphia: University of Pennsylvania Press.

Sageman, M. (2008b). The next generation of terror. *Foreign Policy* 165, 36–42.

Sageman, M. (2014). The stagnation in terrorism research. *Terror. Polit. Viol.* 26, 565–580. doi: 10.1080/09546553.2014.895649

Sardarnia, K., and Safizadeh, R. (2017). The internet and its potentials for networking and identity seeking: a study on ISIS. *Terror. Polit. Viol.* 31, 1266–1283. doi: 10.1080/09546553.2017.1341877

Sasahara, K., Chen, W., Peng, H., Ciampaglia, G. L., Flammini, A., and Menczer, F. (2019). On the inevitability of echo chambers. *arXiv* [Preprint], Available online at: https://arxiv.org/abs/1905.03919 (accessed November 15, 2019).

Schmid, A. (2014). *Al-Qaeda's "Single Narrative" and Attempts to Develop Counter-Narratives:The State of Knowledge*. The Hauge: International Center for Counter-Terrorism.

Schmid, A. (2015). *Challenging the Narrative of the "Islamic State"*. The Hauge: International Center for Counter-Terrorism.

Schmid, A., and Tinnes, J. (2015). *Foreign (Terrorist) Fighters with IS: A European Perspective*. The Hauge: International Center for Counter-Terrorism.

Schuurman, B., Lindekilde, L., Malthaner, S., O'Connor, F., Gill, P., and Bouhana, N. (2018). End of the lone wolf: the typology that should not have been. *Stud. Conf. Terror.* 42, 771–778. doi: 10.1080/1057610X.2017.1419554

Schwarzenegger, C., and Wagner, A. (2018). Can it be hate if it is fun? Discursive ensembles of hatred and laughter in extreme right satire on Facebook. *Stud. Commun. Media* 7, 473–498. doi: 10.1177/0886260511423256

Scrivens, R., Gill, P., and Conway, M. (2019). "The role of the internet in facilitating violent extremism and terrorism: suggestions for progressing research," in *The Palgrave Handbook of International Cybercrime and Cyberdeviance*, eds T. Holt, and A. Bossler (London: Palgrave Macmillan).

Sedgwick, M. (2012). Jihadist ideology, western counter-ideology, and the ABC model. *Crit. Stud. Terror.* 5, 359–372. doi: 10.1080/17539153.2012.723520

Shah, D. V., Cho, J., Eveland, W. P., and Kwak, N. (2005). Information and expression in a digital age: modeling internet effects on civic participation. *Commun. Res.* 10, 531–565. doi: 10.1177/0093650205279209

Shehabat, A., and Mitew, T. (2018). Black-boxing the black flag: anonymous sharing platforms and ISIS content distribution tactics. *Perspect. Terror.* 12, 81–99.

Shehabat, A., Mitew, T., and Alzoubi, Y. (2017). Encrypted jihad: investigating the role of telegram app in lone wolf attacks in the west. *J. Strateg. Secur.* 110, 27–53. doi: 10.5038/1944-0472.10.3.1604

Silke, A. (2004). "An introduction to terrorism research," in *Research on Terrorism: Trends, Achievements and Failures*, ed. A. Silke (New York, NY: Routledge), 1–29. doi: 10.4324/9780203500972.ch1

Spaaij, R. (2010). The enigma of lone wolf terrorism: an assessment. *Stud. Conf. Terror.* 33, 854–870. doi: 10.1080/1057610X.2010.501426

Steglich, C. (2019). Why echo chambers form and network intervention fail: selection outpaces influence in dynamic networks. *arXiv* [Preprint], Available online at: https://arxiv.org/abs/1810.00211 (accessed November 16, 2019).

Stern, J., and Berger, J. M. (2015). *ISIS: The State of Terror*. New York, NY: Harper-Collins.

Sunstein, C. R. (2002). The law of group polarization. *J. Polit. Philos.* 10, 175–195. doi: 10.1111/1467-9760.00148

Sunstein, C. R. (2017). *Republic: Divided Democracy in The Age of Social Media*. Princeton: University Press.

Tai, K., Porumbescu, G., and Shon, J. (2019). Can e-participation stimulate offline citizen participation: and empirical test with practical implications. *Public Manag. Rev.* 22, 278–296. doi: 10.1080/14719037.2019.1584233

Turpin-Petrosino, C. (2002). Hateful sirens…who hears their songs? An examination of student attitudes toward hate groups and affiliation potential. *J. Soc. Issues* 58, 281–301. doi: 10.1007/s00059-016-4520-7

Van der Valk, I., and Wagenaar, W. (2010). *The Extreme Right: Entry and Exit*. Leiden: Leiden University.

Van Dijck, J. (2014). Datafication, dataism and dataveillance: big data between scientific paradigm and ideology. *Surveill. Soc.* 12, 197–208. doi: 10.24908/ss.v12i2.4776

Van Eerten, J., Doosje, B., Konijn, E., de Graaf, M., and Dìde Goede, M. (2017). *Developing a Social Media Response to Radicalization: The Role of Counter-Narratives in Prevention of Radicalization and De-Radicalization*. Amsterdam: WODC.

von Behr, I., Reding, A., Edwards, C., and Gribbon, L. (2013). *Radicalization in the Digital Era: The Use of the Internet in 15 Cases of Terrorism and Extremism*. Santa Monica CA: RAND.

Walsh Matthews, S. (2017). *Semiotics*. Oxford: Oxford University Press.

Waytz, A., and Epley, N. (2012). Social connection enables dehumanization. *J. Exp. Soc. Psychol.* 48, 70–76. doi: 10.1016/j.jesp.2011.07.012

Weimann, G. (2012). Lone wolves in cyberspace. *J. Terror. Res.* 3, 75–90. doi: 10.15664/jtr.405

Weimann, G. (2015). *Terrorism in Cyberspace. The Next Generation*. New York, NY: Columbia University Press.

Willson, M. (2017). Algorithms (and the) everyday. *Inform. Commun. Soc.* 20, 137–150. doi: 10.1080/1369118X.2016.1200645

Winter, C. (2015). *The Virtual Caliphate: Understanding Islamic State's Propaganda Strategy*. London: The Qulliam Foundation.

Winter, C. (2018). Apocalypse, later: a longitudinal study of the Islamic State brand. *Crit. Stud. Media Commun.* 35, 103–121. doi: 10.1080/15295036.2017.1393094

Wojcieszak, M. (2009). Carrying online participation offline: mobilization by radical online groups and politically dissimilar offline ties. *J. Commun.* 59, 564–586. doi: 10.1111/j.1460-2466.2009.01436.x

Wojcieszak, M. (2010). "Don't talk to me"- effects of ideologically homogeneous online groups and politically dissimilar offline ties on extremism. *New Media Soc.* 12, 637–655. doi: 10.1177/1461444809342775

Yayla, A., and Speckhard, A. (2017). *Telegram: The Mighty Application that ISIS Loves*. London: International Center for the Study of Violent Extremism.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Valentini, Lorusso and Stephan. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

ORIGINAL RESEARCH
published: 03 June 2020
doi: 10.3389/fpsyg.2020.01172

Exploring the Pathways Between Transformative Group Experiences and Identity Fusion

Christopher M. Kavanagh[1,2,3*†], *Rohan Kapitány*[1], *Idhamsyah Eka Putra*[4,5] *and Harvey Whitehouse*[1]

[1] Centre for the Study of Social Cohesion, University of Oxford, Oxford, United Kingdom, [2] Institute of Cognitive and Evolutionary Anthropology, University of Oxford, Oxford, United Kingdom, [3] Department of Psychology, Rikkyo University, Tokyo, Japan, [4] Faculty of Psychology, Persada Indonesia University, Jakarta, Indonesia, [5] Division for Applied Social Psychology Research, Jakarta, Indonesia

A growing body of evidence suggests that two distinct forms of group alignment are possible: identification and fusion (the former asserts that group and personal identity are distinct, while the latter asserts group and personal identities are functionally equivalent and mutually reinforcing). Among highly fused individuals, group identity taps directly into personal agency and so any attack on the group is perceived as a personal attack and motivates a willingness to fight and possibly even die as a defensive response. As such, identity fusion is relevant in explaining violent extremism, including suicidal terrorist attacks. Identity fusion is theorized to arise as a result from experiences which are (1) perceived as shared and (2) transformative, however evidence for this relationship remains limited. Here, we present a pre-registered study in which we examine the role of transformativeness and perceived sharedness of group-defining events in generating identity fusion. We find that both of these factors are predictive of identity fusion but that the relationship with transformativeness was more consistent than perceived sharedness across analyses in a sample of Indonesian Muslims.

Keywords: social identity, identity fusion, fusion, Islam, Indonesia, extremism

OPEN ACCESS

Edited by:
Mark Dechesne, Leiden University, Netherlands

Reviewed by:
Johannes Ullrich, University of Zurich, Switzerland
Sarah E. Gaither, Duke University, United States

***Correspondence:**
Christopher M. Kavanagh
christopher.kavanagh@anthro.ox.ac.uk

†ORCID:
Christopher M. Kavanagh
orcid.org/0000-0001-7545-8137

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *02 August 2019*
Accepted: *06 May 2020*
Published: *03 June 2020*

Citation:
Kavanagh CM, Kapitány R, Putra IE and Whitehouse H (2020) Exploring the Pathways Between Transformative Group Experiences and Identity Fusion. Front. Psychol. 11:1172. doi: 10.3389/fpsyg.2020.01172

INTRODUCTION

For decades, psychologists have understood group alignment in terms of group identification as outlined by the social identity approach, which combines social identity theory (SIT) and self-categorization theory (Tajfel and Turner, 1985; Haslam et al., 1996; Hogg, 2006; Hornsey, 2008). An important component of this approach is that it posits a "functional antagonism" between social and personal identities (Hogg and Turner, 1987; Turner, 1987). That is, there exists a hydraulic relationship between levels of identity such that making a group identity salient means that one's personal identity becomes less accessible and vice versa (Tajfel and Turner, 1985). Related to this is the process of *depersonalization* whereby committed group members in salient group contexts perceive themselves less as individuals and more as interchangeable exemplars of the relevant group (Hogg and Turner, 1987; Rosenberg, 1987). Kruglanski et al. (2009, 2014) and Dugas and Kruglanski (2014) work on radicalization emphasizes how such a mechanism plays an important role in 'quests for significance.' They describe how individuals undergoing a search for meaning within a group context involves a *collectivist shift* in which there is a "transition from one's individual identity to one's social identity as the member of some group" which offers

"a sense of empowerment... from identifying with a stronger, more robust and enduring entity whose existence transcends the fragile lives of individual members" (Kruglanski et al., 2019, p. 94).

While there is some evidence for a collectivist shift, with increasing reference to group framing and group goals observed amongst violent terrorists (Kruglanski et al., 2009), it is unclear whether this is driven by processes of depersonalization. Moreover, wider criticisms have been raised concerning the lack of direct evidence for functional antagonism (Sim et al., 2014). Indeed, even advocates of SIT acknowledge that the original model of functional antagonism may be "rigid and over-simplified" (Hornsey, 2008, p. 217). Alternatively, researchers have argued that personal and social identities are fundamentally confounded (Cohen and Garcia, 2005) with some self-affirmation theorists arguing that defense of "both types of identities contribute to the same overarching goal of maintaining self-integrity" (Sherman and Cohen, 2006, p. 206). Relatedly, Swann et al. (2009) proposed an alternative form of group alignment known as 'identity fusion,' in which the relationship between personal and group identity[1] is synergistic rather than hydraulic (Turner, 1987, p. 49): thinking about one's group identity taps directly into personal agency and vice versa This means that relational ties with group members remain important and capable of motivating actions even in the case of individuals who are highly fused with their group (Buhrmester et al., 2014; Swann et al., 2014).

Drawing on decades of anthropological research on group cohesion in ritual communities, Whitehouse (1992, 2018) and Whitehouse and Lanman (2014) have argued that these divergent forms of group alignment, identification and fusion, are associated with distinctive ritual practices and socioecological contexts. In their proposed model, repeated social interactions in which individuals create semantic memory for group identity markers, including regularly repeated rituals and conventions, produces identification. Since these group identities are acquired from others, via individual or social learning, and are stored as semantic memories they are not attached to distinct episodes of personal life experiences. In contrast, episodic and potentially idiosyncratic memories for events become associated with autobiographical identity and produce identity fusion. It is theorized that when these autobiographical experiences are perceived as being shared with other group members they can produce a fusion of personal and group identities generating the synergistic bonds of identity fusion. One example of the consequences of fusion within an Indonesian context is recounted by Putra and Sukabdi (2013) who describe how members of an Indonesian terrorist group reported personal indignation when their group was attacked or mocked (see also Milla et al., 2019). The key distinction between identity fusion and the related construct of identity integration is that fusion is focused exclusively on the relationship between social groups and an individual's sense of self not the intra-relationships between different identity domains (Syed and McLean, 2016).

Recently, Whitehouse (2018, p. 2) outlined his 'shared experiences pathway to fusion' model, which built on his earlier theoretical work (Whitehouse, 2013) and proposed a "new general theory of extreme self-sacrifice." The 'shared pathway' model presents a causal chain leading to self-sacrifice which begins with the experience of a catalytic emotional event, and a subsequent process of reflection and meaning making, resulting in the sense of possessing a 'shared essence' with a group. Recognition of this 'shared essence' can be generated either by perceptions of phenotypic similarity (Dar-Nimrod and Heine, 2011; Vázquez et al., 2017), or a sense that episodic memories of self-defining 'group event' are shared with other members. Importantly, such a perception need not be accurate. According to the model, the feeling of a shared essence in turn produces identity fusion with the relevant group and this, under conditions of threat, motivates extreme self-sacrifice. Perceptions of having a shared essence are proposed as a necessary condition for identity fusion but are distinguished from the concept as they are not defined by the principles of (1) agentic-personal self, (2) identity synergy, (3) relational ties, and (4) irrevocability (Swann et al., 2012).

The full theoretical model is complex and involves a series of causal components (**Figure 1**). However, Whitehouse (2018, pp. 11–12) has urged researchers to view the model as presenting a discrete set of distinct but interlocking "testable hypotheses" that require targeted empirical validation. The goal of this paper then is to test one segment of the theorized relationships using unanalyzed variables from an existing dataset of responses collected from over a thousand Indonesian Muslims, including members of the general public and two Islamic organizations (Kavanagh et al., 2019b).

Specifically, we test the validity of the pathways proposed between memories of 'group defining' events (self-generated by the participants) and identity fusion with a relevant superordinate group (All Muslims). We do not measure shared essence directly as the dataset used in the study did not include a relevant measure. To do so we prompt individuals to recall a group and self-defining event related to their superordinate religious identity, in line with common methods used to make social identities salient (Andersen et al., 2007; McLeish and Oxoby, 2011; Ford et al., 2013). Then ask them to rate how far they view the event as being (1) self-transformative and (2) a shared experience with other group members. Finally, we use responses to these two measures to examine whether they are independently, or interactively, associated with levels of identity fusion with the superordinate group: All Muslims.

An Indonesian sample provides a relevant context in which to test the proposed model as, despite a longstanding reputation for religious syncretism and moderation, there are increasing concerns about growing support for extremist movements (Khisbiyah, 2009; Ward, 2009; Takwin et al., 2016; Arifianto, 2018). The sample selected not only includes the relevant measures but also should have a meaningful level of variability as the data was collected from a large, diverse array of Sunni Muslims in the Indonesian capital Jakarta. The original

[1]It should be noted that we are not suggesting individuals have a single group identity. All individuals possess multiple overlapping social/group identities (Roccas and Brewer, 2002). We are referring to the proposed 'functional antagonism principle' between social and personal identities (Spears, 2001).

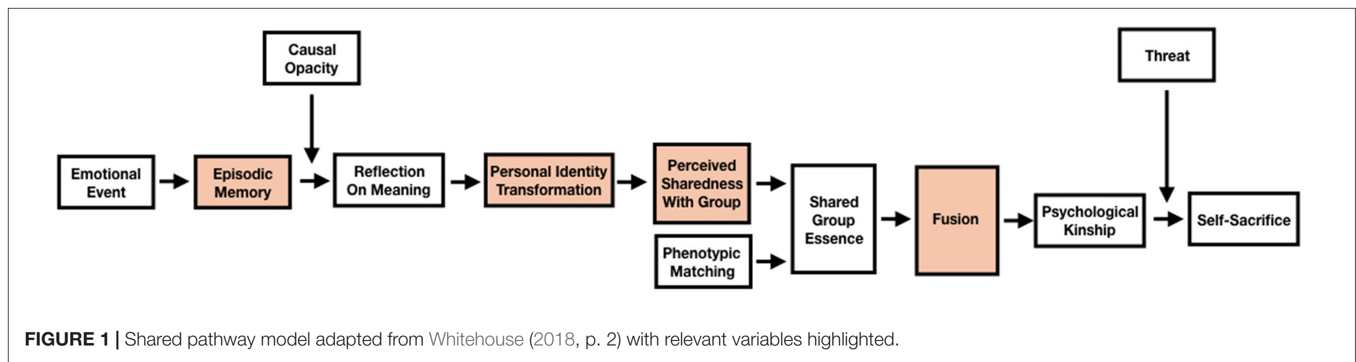

FIGURE 1 | Shared pathway model adapted from Whitehouse (2018, p. 2) with relevant variables highlighted.

motivation for collecting the sample examined was to capture responses from members of a group that had ritual practices and organizational structures more conducive to producing fusion–the Prosperity and Justice Party (PKS)–and another more conducive to group identification–*Nahdlatul Ulama* (NU)–alongside a comparison group of unaffiliated members of the public. The groups were anticipated to represent different group bonding dynamics as, despite both being Sunni Islamic groups, the PKS and NU differ substantially in terms of ideology and regular practices.

Nahdlatul Ulama is the largest Islamic organization in Indonesia, noted for its moderate stance and endorsing the "middle path" (*wasathiyyah*) of Islam (Barton, 2014; Arifianto, 2016; Eliraz, 2016; Hosen, 2016). It also defines itself primarily as a religious social organization and officially does not participate directly in political contests[2] (Barton, 2010, 2014; Sirry, 2010; Pribadi, 2013). Its practices revolve primarily around educational programs, such as administering of *Pesantren* (a traditional religious education system) and organizing collective sermons and large scale (non-compulsory) prayer sessions (Barton, 2010, 2014; Sirry, 2010; Pribadi, 2013). The PKS, in contrast, is an explicitly political and Islamist group with the stated aim of Islamizing Indonesia through cultural and political action (Nurdin, 2009; Machmudi, 2011). Membership within PKS is characterized by participation in intense religious study groups, where small groups (around 6–10 people) meet weekly to discuss Islamic doctrines and whether their actions have conformed to ideal Islamic practices (Machmudi, 2011). The PKS has well documented connections to transnational Islamic movements, most notably the Muslim Brotherhood in Egypt[3] (Machmudi, 2011; Permata, 2016).

Returning to the 'shared pathway' model: the critical point is that high levels of identity fusion have been repeatedly demonstrated to have a strong predictive relationship with extreme pro-group action, including willingness to fight and die for the group (Swann et al., 2010a,b, 2014; Buhrmester et al., 2014; Swann and Buhrmester, 2015). Consequently, if we find support for the hypothesized pathways to fusion this could indicate that catalytic group-related experiences—that are regarded as transformative and shared—could constitute potential risk factors that increase the likelihood of an individual lending support, or engaging in, violent extremism when the contextual circumstances align, such as the presence of an ideology that endorses violence as legitimate.

Previous Research

There have been a small number of previous studies that have examined the specific relationships explored in this paper. Whitehouse et al. (2017) using an online US Mechanical Turk (MTurk) sample, found a weak positive relationship (r = 0.24, p < 0.01) between 'shared self-defining experiences' and endorsement of self-sacrificial pro-group actions (Study 1) and, in a separate MTurk sample, found the relationship to be partially mediated by fusion (b = 0.40; Study 2). In the same paper, a study of 260 monozygotic and 246 dizygotic twins (Study 8) found that 'shared experience' was associated with identity fusion independent from genetic closeness, albeit the relationship was weak (b = 0.27). Another recent study (Newson et al., 2016) examined British Football fans and the connection between 'self-shaping' events and the degree to which individuals fuse with their club, where these events were significant wins and losses of their favored team. The results support a direct relationship between both positive and negative 'self-shaping' events and identity fusion levels (r = 0.40, p < 0.01). These results are encouraging but remain preliminary, and in all existing studies, measures of self-transformation and perceptions of shared experience have been aggregated, or the relationship has been simply inferred. As a result, there has not yet been a robust test of the causal chains hypothesized in the 'shared pathways' theoretical model (**Figure 1**).

Here, we seek to address this gap in the research literature by examining separate measures of (1) self-transformativeness and (2) the perception that memories are shared by other group members, and then testing the independent, and interactive, relationship of these variables and identity fusion with the group. A positive interactive effect is implied by the theoretical model but as noted above these variables have not been treated separately in previous research, so the current paper seeks

[2]Although most of the followers of NU are not directly involved in politics historically it has had greater involvement. Previously members within NU even created a political party under the name "Nahdlatul Ulama" and won seats in elections in 1950s. This group was eventually forced to merge into the United Development Party (PPP) with other Islam-based political parties in 1973 (Jones, 1984).

[3]The PKS emerged from the religious movement *Jemaah Tarbiyah* during the 1980s–1990s and has been described as the "Indonesian branch of the Egyptian Muslim Brothers" (Permata, 2016, p. 29).

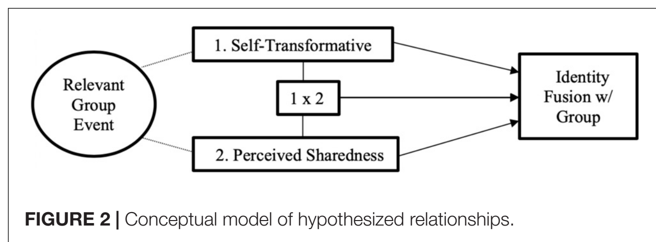

FIGURE 2 | Conceptual model of hypothesized relationships.

to examine whether there is an interactive effect or if the measures and their effects should be treated independently in future research.

A conceptual model of the relationships we will examine is provided below (**Figure 2**). To reduce researchers degrees of freedom (Kerr, 1998; Simmons et al., 2011; Wicherts et al., 2016) and increase transparency we preregistered our hypotheses and data analysis plans in line with the conceptual model outlined in **Figure 2**.

We note here that in some formulations of Whitehouse's 'shared pathways' theoretical model 'perceptions of shared experience' are positioned as a mediator acting between self-transformation and the sense of a 'shared essence' leading to identity fusion. We could therefore alternatively seek to test a mediation model (see **Figure 3**) but we opted not to do so for our main analysis, as we assessed the current evidence base as not yet strong enough to justify this more complex model. Instead, we examine the validity of the alternative model as an exploratory analysis.

Main Hypotheses

Based on the 'shared pathways' theoretical model outlined in Whitehouse (2018), we predicted that in a large sample collected from Indonesian Muslims:

> **H1a:** There will be a positive association between how self-transformative respondents' rate 'defining group events' and their level of identity fusion with 'All Muslims.'
> **H1b:** There will be a positive association between respondents' perception of having shared memories of 'defining group events' and their level of identity fusion with 'All Muslims.'
> **H1c:** That the main effects of both variables on identity fusion (with All Muslims) will be qualified by an interactive effect.
> **H2:** That the pathways described in H1 will display a stronger association with identity fusion measures than with group identification with the same target group (with All Muslims).

Alternative Hypothesis

Our justification for H2 is that there is a broad array of empirical results and theoretical discussion that suggests a stronger relationship between the perception of sharing a 'group essence' and identity fusion than with group identification (Swann et al., 2012; Whitehouse and Lanman, 2014; Whitehouse et al., 2017; Buhrmester et al., 2018; Whitehouse, 2018). The sense of possessing such a shared essence is theorized, in part, to emerge from an individual seeing relevant group events as (1) self-transformative and (2) believing their perception to be shared by other group members. However, Kavanagh et al. (2019b) found that, contrary to expectations, there was a stronger relationship between group identification and parochial progroup outcome measures than with fusion. An alternative hypothesis, therefore, based on the results reported in Kavanagh et al. (2019b) is that the relationship between self-transformative experiences and perceptions of shared memories will be stronger for group identification than identity fusion in this sample. We thus considered this as a possible alternative hypothesis but note that if observed whether it indicates a country-level effect, a pattern common to Muslim-majority countries, or a broader relationship counter to the existing theoretically literature will be impossible to determine without additional samples and further research.

MATERIALS AND METHODS

Measures

We accessed an existing database of responses collected from Indonesian Muslims (see Kavanagh et al., 2019b) and extracted a number of variables. These included previously examined demographic control variables (age and gender), two measures of affiliation with religious group (fusion and identification), and potential confounding variables. The confounding variables selected were based on factors that were identified to be predictive of fusion and identification in Kavanagh et al. (2019b), specifically: group affiliation, intratextual fundamentalism, and level of religious practice. The two unanalyzed variables which are used to test the hypotheses for the present paper were self-reported ratings of (1) transformativeness and (2) perceived sharedness of a defining group experience. Further details of the relevant measures are detailed below.

Group-Defining Event Prompt

Participants were prompted to write about an event which they regarded as 'defining' for themselves and the fellow members of their group.[4] The writing prompt was: *Describe in your own words an event related to Muslims in Indonesia/PKS/NU that you feel was most defining for how you view yourself and how other Muslims in Indonesia/PKS/NU members view themselves.* The intention here was to invoke a salient event that was regarded as personally transformative but, crucially, was group-relevant rather than being entirely personal. To make the intended contrast clearer, the next question alternatively asked the participants to list the three most memorable events in the history of their group (PKS/NU/Muslims in Indonesia) for group members. As relevant events were self-selected by participants and we desired variation in our key variables we kept all responses except for three in which the participants explicitly stated there was no defining event they

[4]The relevant groups were fellow members of PKS or NU, or fellow Indonesian Muslims for the general public sample. Although these instructions meant that the groups referenced in the accounts varied, Kavanagh et al. (2019b) reported that for all three groups, aside from family, 'All Muslims' was the most salient group level identity on measures of fusion and identification.

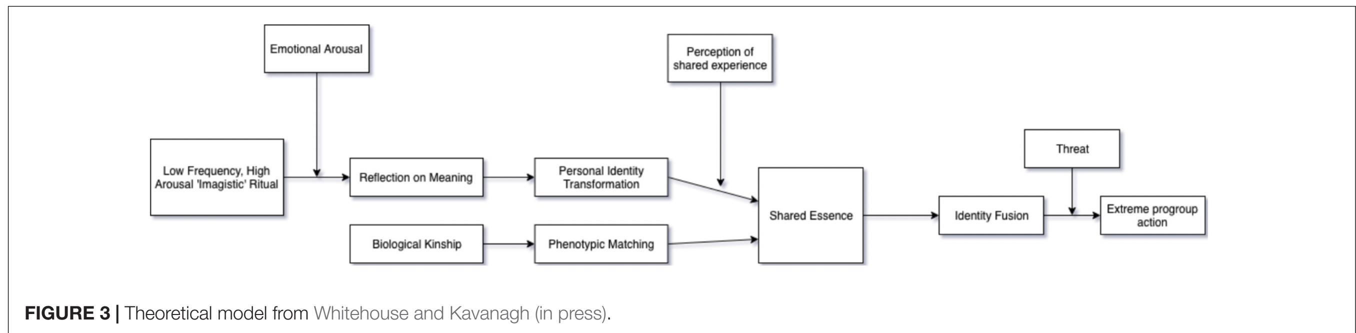

FIGURE 3 | Theoretical model from Whitehouse and Kavanagh (in press).

could think of. There were 44 responses that did not provide accounts but answered follow up questions on their experience. We included these responses as we specified at the beginning of the questionnaire that participants could avoid answering questions if they felt uncomfortable or did not want to write down sensitive experiences. We did, however, check if excluding them altered observed patterns substantially but no differences were observed. For further details of the events mentioned see the results section.

Transformativeness

To assess transformativeness, we asked participants with reference to the group defining event they described, how far they agreed with three novel items, responding on a seven-point scale (1-strongly disagree to 7-strongly agree). The items were: '*My current self is the result of what Muslims experienced in Indonesia*'; '*What Muslims experienced in Indonesia, as I described, has a very significant role in shaping my current self*'; and '*If the events I described were not experienced by Muslims in Indonesia, I will probably be a totally different person today.*' Responses were found to have good reliability, Cronbach's $\alpha = 0.80$, and a single mean-transformative score was computed, $M = 4.6$, $SD = 1.5$.

Perceived Sharedness

With reference to the group-defining event participants were asked to indicate how far they agreed with two items adapted from Whitehouse et al. (2017: Study 2), designed to measure the extent to which they viewed their memory of the event as shared with other members. A seven-point scale was used with the description at the lowest score indicating that '*My memories of what happened at that event are completely different from those of (my fellow group members)*' and at the highest that '*My memories of what happened at that event are shared completely with (my fellow group members).*' The second item similarly asked participants to indicate using the same seven-point scale whether '*their feelings about what happened at the event*' were 'completely different' from their fellow group members (lowest score) or 'shared completely' (highest score). The scale had good reliability, Cronbach's $\alpha = 0.82$, and a single mean-sharedness score was computed, $M = 4.6$, $SD = 1.5$.

Group Affiliation

Group affiliation was determined via self-identification during data collection and individuals were categorized as belonging to PKS, NU, or as politically unaffiliated members of the public.

Intratextual Fundamentalism

Fundamentalism was measured using a three-item version of the intratextual fundamentalism scale (Hood et al., 2005), using a seven-point response scale (1-strongly disagree to 7-strongly agree) adapted to the Indonesian context in Muluk et al. (2013). Items included: '*Because the Qur'an can never be wrong, it must be understood literally according to what is written*'; and '*The Qur'an verses' meaning are already clear, they mustn't be debated.*' Responses were found to have good reliability, Cronbach's $\alpha = 0.79$, and a single mean-fundamentalism score was computed, $M = 5.6$, $SD = 1.5$.

Religious Practice

A single score was calculated based on combined responses to four questions that asked about the frequency of four religious practices, responses were collected on a seven-point response scale (1 = never, 7 = always'). The practices referenced were: (1) *Practicing mandatory shalat (prayer) five times each day;* (2) *Fasting during Ramadan;* (3) *Practicing shalat sunnah (shalat that is encouraged but not mandatory)*; and (4) *attending religious gatherings, such as religious council, religious preaching, or religious discussion*. The scale items displayed moderate reliability (Cronbach's $\alpha = 0.75$, $M = 5.8$, $SD = 1$).

Identity Fusion

Identity fusion with the relevant categorical religious target group ('All Muslims') was measured using the pictorial identity fusion measure using a seven-point response scale (Swann et al., 2009). This item requests participants to select from seven images depicting two circles with varying degrees of proximity and overlap (one circle represents the participant and the other their group). The closer and greater the degree of overlap in the image, the higher the fusion score (1-no overlap, 7-complete overlap)[5].

Group Identification

A single item measure of group identification was collected on a seven-point response scale (1–7) with higher scores indicating greater identification The wording of the measure was originally taken from the single item social identification measure (SISI; Postmes et al., 2013) but the specific wording was adapted during translation to: "*How strongly do you identify with 'All*

[5]Kavanagh et al. (2019b) collected measures of fusion and identity toward a number of other targets, including the categorical religious identity discussed here. In the present article, we are only concerned with this single target community.

Muslims"' as this was found during translation processes to be easier to understand.

All items were translated from English to *Bahasa* Indonesian by a professional translator and then checked for consistency via back translation. Items with wording that were identified as hard to understand were discussed and edited to sound more natural at the expense of altering original wording (as per the SISI group identification measure).

Preregistration and Data Archiving

The hypotheses, data analysis plan, and rationale for the study were all preregistered prior to examination of the data. The preregistration document is available from the Open Science Framework at the following address: https://osf.io/4jtkn/?view_only=0e4c439ced424007abcef16725c36b17[6]. The data used in all analyses reported in the manuscript is available to access on the Open Science Framework[7].

Ethics

All procedures for the study complied with the regulations of the School of Anthropology and Museum Ethnography Research Ethics Committee (Oxford University) and received approval (Ref No: SAME_C1A_16_015). Ethical clearance for the study in Indonesia was approved by the Ethics Committee Faculty of Psychology at the University of Indonesia (Ref No: 142/FPsi.Komite Etik/PDP.04.00/2017). The data collected from respondents was stored anonymously and all participants were provided with study information and required to complete a consent sheet.

Sample

The dataset examined (Kavanagh et al., 2019b) included 1320 participants from three groups: 618 members of NU, 207 members of PKS, and 495 non-affiliated Muslims. Organizational identification was based on participants' self-declaration in the surveys. Data collection targeting members of NU was conducted in the *Universitas Nahdhatul Ulama Indonesia* (UNUSIA) where most students are members of NU. Members of PKS were recruited through their weekly group meetings held in locations around Jakarta. General Muslims were recruited from non-affiliated members of the public located around university premises, and thus this group includes a significant portion of students. Participants were compensated for participation by payments of RP 50.000 ($\sim$ \$4). The mean age of the sample was 26.40 years (SD = 9.51), and was 53.6% male and 46.4% female. Ethnically, the majority of responses were Javanese (50.7%), followed by Sundanese (24.7%), Minangkabau (3.7%), Palembang (1.9%), Bornean (0.9%) and 'other' (18.2%). We included all participants who possessed no missing data for any of the variables analyzed and as a result omitted 69 participants, leaving N = 1248 participants. A G*Power sensitivity analysis indicated that the sample afforded us 95% power to detect a small effect (R^2 = 0.01) using multiple regression analysis (Faul et al., 2009).

[6]Please note this is the blinded review link. If accepted this address will need to be amended.

[7]https://osf.io/gewmq/

Pre-registered Analysis Plan

In order to test the three hypotheses associated with H1 we will execute a hierarchical regression analysis on the responses of our participants in which we predict identity fusion to All Muslims, using the following variables as predictors: (1) Self-transformation, (2) Perception of shared memories, (3) an interaction term of transformativeness and perceived sharedness. However, we will first run a baseline model which account for control variables: (1) group membership (dummy coded), (2) age, (3) sex, (4) Religious Practice Score, and (5) Intratextual Fundamentalism. Using this approach, we can determine to what extent the focal predictors improve the overall model beyond this baseline.

In order to test H2, we will compute the variance unique to both fusion and group identification; to do this we will predict the residuals for identity fusion (regressed on group identification) and group identification (regressed on identity fusion). These two new variables, which represent the unique variance of each construct (as well as measurement error) will then be the outcome of the model described in H1.

Exploratory Analysis

We also plan, if the main relationships in H1 are observed, to conduct an exploratory analysis of a proposed mediation model in which 'perception of shared experience' mediates the relationship between 'self-transformation' and 'identity fusion with All Muslims.' We will assess the strength of the indirect and direct pathways and compare these with alternative models in which the order of the predictive relationships are reversed.

RESULTS

As anticipated, there was wide variation in the answers provided to the group-defining event prompt. Participants varied in how much depth they described events and valence was hard to distinguish since even when tragedies were referenced often the subsequent effects were noted as positive. One common example was references to a controversy involving the Christian governor of Jakarta who was accused and later sentenced for committing blasphemy against the Quran. Here, even participants who strongly disapproved of the governor's statements frequently mentioned the feelings of unity that came from participating in the '212' or '411' protest demonstrations (names refer to the dates of the rallies).

The most commonly referenced topics were events related to: (1) religious practices, experiences or historical events connected with NU (37.3% with 5.6% focusing on the 1945 Jihad resolution), (2) the blasphemy controversy and subsequent protests (19.6%), (3) religious practices, experiences or historical events connected with PKS (11.8%, with 2.4% mentioning the arrest and detention of Luthfi Hasan Ishaaq PKS' former leader), (4) Islamic holidays, regular religious practices, or Islamic teachings (14.9%), and (5) The events of the Gus Dur presidency (4%). Amongst the general public, the most common event mentioned was the blasphemy controversy which accounted for 42.6% of responses, followed by

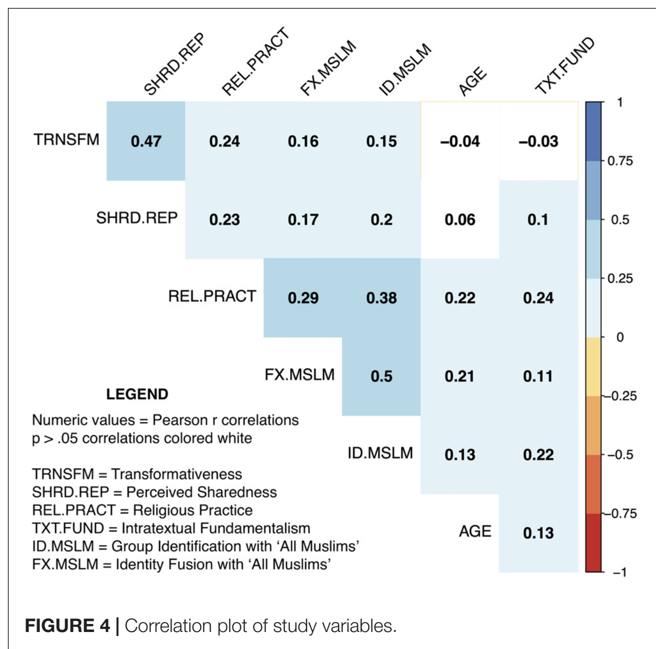

FIGURE 4 | Correlation plot of study variables.

generic references to Islamic holidays, regular religious practices and teachings which accounted for 33.5% of responses.

Figure 4 shows the correlations between all variables relevant to the present analyses. We note that transformativeness and perceived sharedness are moderately correlated (r = 0.47, $p < 0.001$), as are the measures of identity fusion and group identification ($r = 0.50, p < 0.001$).

Hypothesis 1

First, we examined the simple correlations between the identity fusion measure and transformativeness (r = 0.16, $p < 0.001$) and perceived sharedness (r = 0.17, $p < 0.001$) which displayed weak but significant positive relationships. **Figure 5** shows an illustrative scatterplot of the relationships broken down by groups, note that the PKS responses display a ceiling effect as most members selected the highest fusion response.

Following this, in adherence with our preregistered analysis plan, we conducted a hierarchical linear regression with identity fusion with 'All Muslims' as the outcome. The analyses were comprised of two models, in the first we included measures likely to confound the relationships of interest. Specifically, we included age, sex, group membership (dummy coded), and scores for intratextual fundamentalism and religious practice. The second model included all the measures from the first, but added standardized measures of transformativeness, perceived sharedness, and their interaction term. **Table 1** shows the results of the regression analysis.

Model 1 accounted for a modest amount of variation in the identity fusion outcome (R^2_{adj} = 0.14), and the additions in model 2 provided a small, though significant, improvement (R^2_{adj} = 0.16), $F(3,1205) = 9.91$, $p < 0.001$. The inclusion of the transformativeness and sharedness variables did not diminish the predictive value of the potentially confounding variables from model 1, which suggests that they accounted for their own unique variance. More specifically, both predictors demonstrated significant positive main effects in model 2, which accorded with H1a and H1b. However, the shared representation variable was on the edge of conventional significance values, p = 0.05, reducing confidence in the finding. The interaction term was also a significant predictor in the model, but the relationship was negative (counter to Hypothesis 1c).

Hypothesis 2

In order to test our second hypothesis, that the pathways in H1 would display a stronger relationship with the fusion measure than with a matched group identification measure, we conducted another set of hierarchical linear regressions analyses. Given the moderate correlation observed between the fusion and identification measures, r = 0.50 (**Figure 4**) indicating shared variance of R^2 = 0.25, we computed two new variables in order to make for a more meaningful test of our hypothesis. Specifically, we calculated the residual variance in the fusion measure, after running a regression with identification as the predictor variable and, vice versa, calculating the residual variance in identification after running a regression with fusion as the predictor variable. These values represent the unique variance associated with each construct, as well as an unknown amount of measurement error (this method was used in Kavanagh et al., 2019a). Using these residual values reduces the likely observable strength of relationships but provides greater resolution to detect unique relationships between transformativeness and perceived sharedness and the group identification and fusion outcomes. We hypothesized that, using these residual measures, identity fusion would still be predicted by the three factors listed in H1; and that there would be weaker relationships when the outcome was group identification.

We conducted a parallel analysis involving a two-stage linear regression with the newly calculated fusion and identification residual value. In the first stage, we entered potentially confounding demographic and religious variables, and in the second the three predictor variables of interest: transformativeness, perceptions of shared experience and their interaction term. Then we examined if there was any significant improvement between the model in stage 1 and stage 2 for both outcomes and explored the contributions made to the stage 2 models by the predictor variables.

First, we note the stage 2 model for both the fusion and group identification outcomes displayed significant model fit, and that the overall model fit was greatest for the group identification model. However, relative to the stage 1 model, a significant improvement with the addition of the target variables in stage 2 was only observed for the fusion residual, $F(3,1205) = 6.82$, $p < 0.001$, and not for the identification residual, $F(3,1205) = 5.67$, $p = 0.10$. This suggests that the focal predictors were more relevant predictors for the fusion residual, and that the identification residuals alternatively were more strongly associated with the confounding demographic and religious predictors entered in stage 1. The slightly better model fit for identification likely reflects the hypothesized relationship between 'doctrinal' religion, represented by 'textual

FIGURE 5 | (A,B) Scatterplot of relationship between transformativeness, perceived sharedness and Fusion with 'All Muslims.' Jitter added to aid visibility.

fundamentalism' and 'religious practices' measures, and group identification processes (Whitehouse and Lanman, 2014).

Alternatively, we note that PKS membership was a strong predictor of higher fusion scores, while NU membership displayed a negative relationship. This was not the case with the group identification measure, supporting the contention that the constructs are distinguishable. In regard to the three target variables of interest, in the stage 2 model with the identity fusion residual as an outcome we found that only transformativeness displayed a significant main effect. There was no main effect observed for shared representation but as in H1 there was a weak negative relationship with the interaction. In contrast, in the stage 2 model with the identity fusion residual as an outcome shared representation was found to have a significant positive relationship (**Table 2**). To help visualize the difference we constructed plots, with error bars based on 500 bootstraps, that demonstrate the relative contribution of each variable to the overall variance explained in both models (**Figures 6**, **7**).

Exploratory Analysis

Bias corrected mediation analyses, based on 5,000 bootstrap samples, were conducted using PROCESS V3.0 (Model 4: Hayes, 2012) to examine a proposed mediation model wherein relationship between transformativeness and identity fusion with 'All Muslims' was mediated by perceived sharedness. A conceptual model of the proposed relationship is shown in **Figure 8**.

Analysis of the pathway outlined in **Figure 8** did detect a partial mediation operating through perceived sharedness, $b = 0.07$, $SE = 0.02$, 95% CI [0.03, 0.10], although a direct effect remained, $b = 0.11$, $SE = 0.03$, 95% CI [0.04, 0.18]. However, robustness checks[8] that examined alternative mediation pathways (exchanging sharedness and transformativeness and placing identity fusion in a moderating role) found partial mediations of similar magnitudes. It would thus be inappropriate to draw any strong conclusions about the directional relationships observed from these results.

GENERAL DISCUSSION

Using an existing dataset collected from three groups of Indonesian Muslims, we analyzed previously unexamined

[8]We note that there are criticisms of the practice of examining reversed causal models in mediation (Thoemmes, 2015) but that others recommend them as useful (Fiedler et al., 2018) to avoid drawing unwarranted causal conclusions.

variables to test key relationships proposed by the 'shared experiences pathway to fusion' model (Whitehouse, 2018). In line with Open Science protocols (Nosek et al., 2018), our hypotheses and analyses were preregistered to restrict researchers degrees of freedom (Simmons et al., 2011) and reduce *post hoc* theorizing to fit the results observed (Kerr, 1998).

Our first hypothesis posited that after participants self-generated a memory of a group-defining event for Indonesian Muslims there would be positive associations between the degree to which the event was rated as self-transformative (H1a) and perceived as shared by the group (H1b) and identity fusion with the relevant categorical religious group ("All Muslims"). We also hypothesized that there would be an interactive positive relationship between these two variables and identity fusion with 'All Muslims' (H1c).

In support of our hypothesis we found that the ratings of self-transformativeness ($r = 0.16$, $p < 0.001$) and perceived sharedness ($r = 0.17$ $p < 0.001$) for self-generated defining group events were correlated with fusion to 'All Muslims.' Furthermore, a preregistered hierarchical regression predicting fusion with 'All Muslims' (after accounting for confounding demographic and religious variables) revealed significant positive independent associations for both transformativeness, ($b = 0.14$, $p < 0.001$) and perceived sharedness ($b = 0.09$, $p = 0.05$). The interaction of both variables also made a significant contribution to the model, although the relationship observed was unexpectedly negative ($b = -0.09$, $p = 0.02$), a point we will return to. We acknowledge, however, that caution is warranted as both the interaction term and the main effect of perceived sharedness are close to conventional thresholds of significance. Moreover, the total variance accounted for by their addition was small ($R^2 = 0.2$). Nonetheless, our confidence in these results is increased as they were prespecified.

With those considerations in mind we interpret our findings as offering preliminary evidence for the association between identity fusion with a given group and the belief that group-defining events have been self-transformative. This is theoretically the result of such events becoming a core component of an individual's personal identity and autobiography (Conway et al., 2004). However, we acknowledge that in the current dataset there

TABLE 1 | Summary of regression models for H1.

	Fusion to All Muslims			
	Model 1		Model 2	
	b	**(*SE*)**	***b***	**(*SE*)**
Group (PKS)	0.67***	(0.14)	0.62***	(0.14)
Group (NU)	−0.23*	(0.11)	−0.31**	(0.11)
Sex (female)	−0.24**	(0.09)	−0.18*	(0.09)
Age	0.01**	(0.01)	0.02***	(0.01)
Religious practice	0.40***	(0.05)	0.35***	(0.05)
Textual fundamentalism	0.01	(0.03)	0.01	(0.03)
Transformativeness (1)	–	–	0.14***	(0.05)
Perceived sharedness (2)	–	–	0.10*	(0.05)
Interaction term (1) and (2)	–	–	−0.09*	(0.04)
Intercept	2.75***	(0.30)	3.10***	(0.31)
R^2	0.14		0.16	
Adjusted R^2	0.14		0.16	
Residual standard error	1.54		1.52	
F statistic	$F(6,1208) = 33.45$, $p < 0.001$		$F(9,1205) = 26.10$, $p < 0.001$	

**p* < 0.05, ***p* < 0.01, ****p* < 0.001, shaded variables were standardized.*

TABLE 2 | Summary of final regression models for H2.

	Target group: All Muslims			
Outcome	**Group identification**		**Identity fusion**	
	b	***SE***	***b***	***SE***
Group (PKS)	0.03	(0.09)	0.34***	(0.09)
Group (NU)	0.21	(0.07)	−0.26***	(0.07)
Sex (female)	−0.13*	(0.06)	−0.03	(0.06)
Age	0.00	(0.00)	0.01*	(0.00)
Religious practice	0.22***	(0.03)	0.08*	(0.03)
Textual fundamentalism	0.11***	(0.02)	−0.05**	(0.02)
Transformativeness (1)	−0.03	(0.03)	0.09**	(0.03)
Perceived sharedness (2)	0.07*	(0.03)	0.02	(0.03)
Interaction term (1) and (2)	0.03	(0.04)	−0.06**	(0.01)
Intercept	−1.93***	(0.19)	−0.26***	(0.19)
R^2	0.12		0.09	
Adjusted R^2	0.11		0.08	
Residual standard error	0.94		0.95	
F statistic	$F(9,1205) = 17.63$, $p < 0.001$		$F(9,1205) = 13.05$, $p < 0.001$	
Model improvement from S1	$F(3,1205) = 5.67$, $p = 0.10$, $R^2\Delta = 0.01$		$F(3,1205) = 6.82$, $p < 0.001$, $R^2\Delta = 0.02$	

**p* < 0.05, ***p* < 0.01, ****p* < 0.001, shaded variables were standardized.*

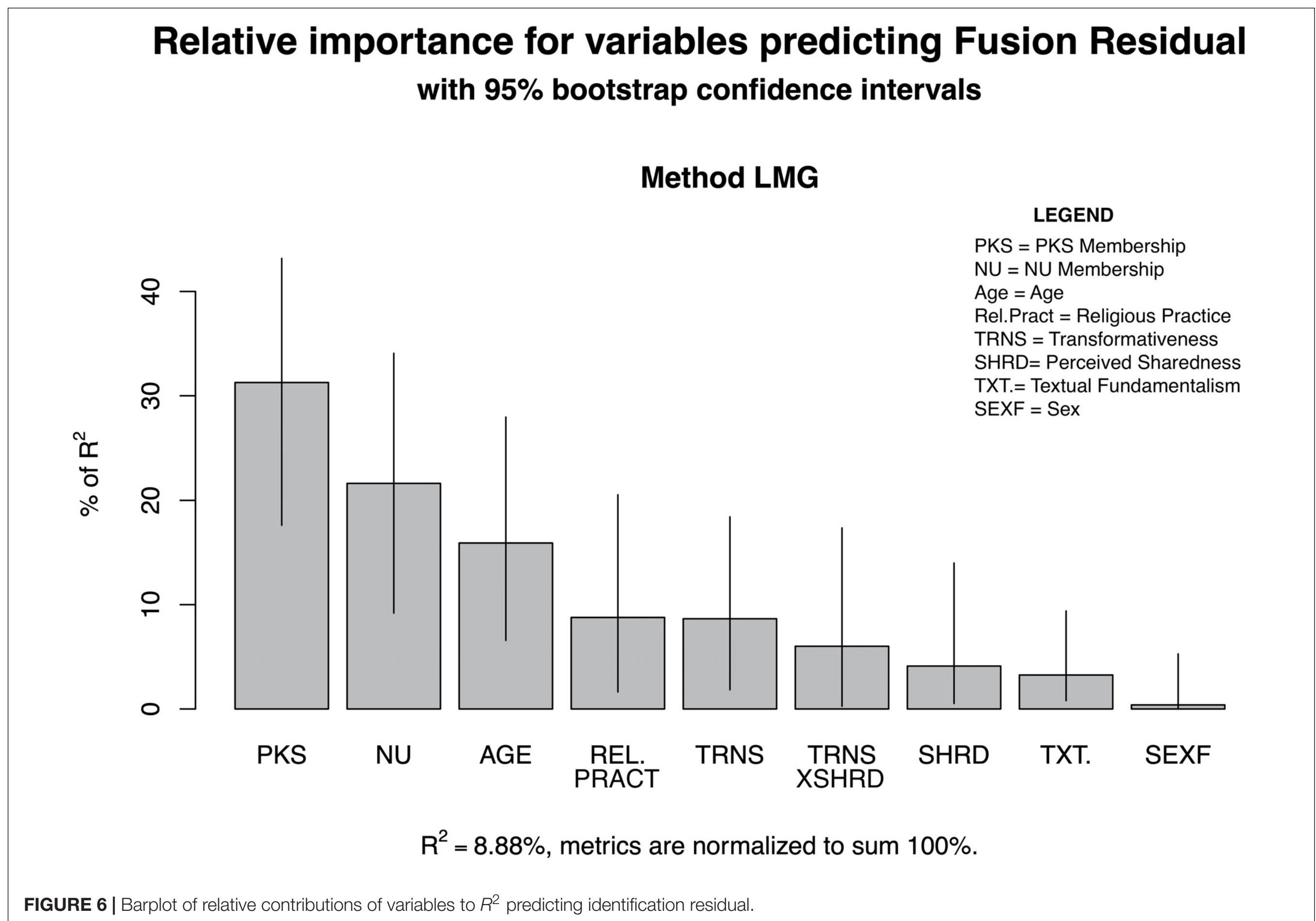

FIGURE 6 | Barplot of relative contributions of variables to R^2 predicting identification residual.

was significant variation in the types of events being imagined and this is likely to have led to variation in how salient the events were for autobiographical identity.

A separate association was found with perceptions of group-defining experiences being shared with other group members, which has been theorized as providing fertile foundations for the development of identity fusion and psychological kinship (Swann et al., 2014; Whitehouse and Lanman, 2014). However, we note this relationship was not found in the regression models conducted to examine our second hypotheses that these relationships would be more associated with fusion over matched group identification measures. That the interaction between these two effects was negative was unexpected. A tentative explanation we considered was that if an event is regarded as self-transformative but also perceived to be widely shared then it may represent an event around which popular narratives, official accounts, or doctrinal descriptions exist and are disseminated. An illustration of this would be the research into memories of the 9/11 terrorist attack in America which Hirst et al. (2015) demonstrated were often strongly impacted by subsequent reporting.

The existence of an established narrative could diminish the event's ability to serve as a catalyst for personal reflection and generate the kinds of relational bonds that are suggested as being fundamental to fusion processes (Gómez et al., 2011, pp. 918–919). The subversion of idiosyncratic reflection due to homogeneous accounts could instead lead to an alternative categorical form of bonding, such as group identification (Hogg, 2006; Hornsey, 2008). If the transformative nature of the event relies not on self-reflective *idiosyncratic* meaning-making but rather semantic knowledge of a shared cultural or historical narrative then it would seem to fall outside of the processes envisioned in the 'shared experiences pathway to fusion' model (**Figure 1**). Similarly, an event that is construed as a matter of doctrine would be more likely to generate group identification, according to Whitehouse and Lanman (2014).

Relatedly, the government and various religious groups in Indonesia, through their control of the education system, seek to instill shared historical narratives of the nation, Islamic history, and specific groups, including various transformative trials and challenges (Tan, 2012; Wieringa and Katjasungkana, 2018). Many of the events described by participants were of a public nature, and relevant to doctrine and shared history, and are topics of formal pedagogy. Previous findings on the same groups and participants as reported here show that group identification is more predictive than fusion for various progroup measures in Indonesia (Kavanagh et al., 2019b), and so it is notable that we still find evidence of the hypothesized relationships. However,

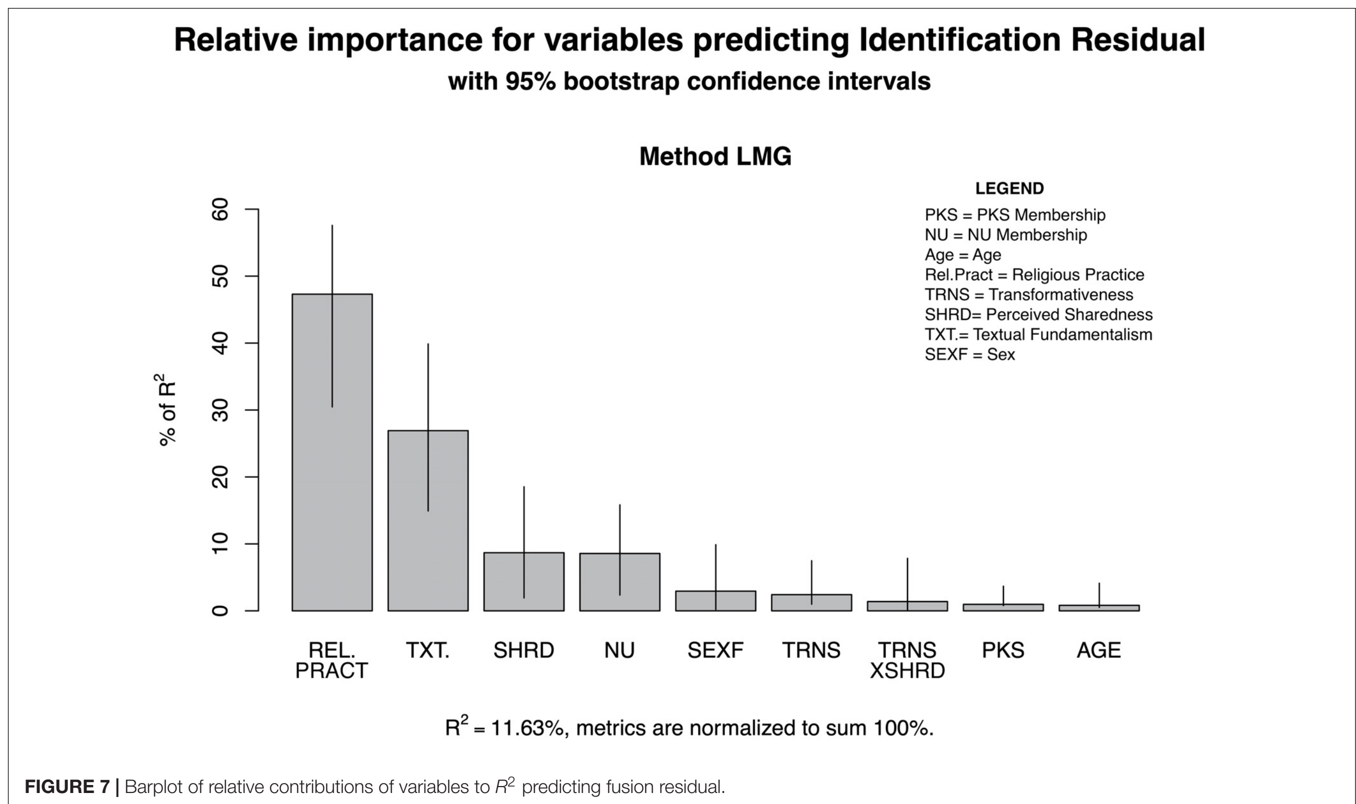

FIGURE 7 | Barplot of relative contributions of variables to R^2 predicting fusion residual.

we also caution that—counter to the account outlined here—we do not find any interactive effect of transformativeness and shared experiences in the regression models using group identification as an outcome.

To provide further detail, our second hypothesis was that the relationships between transformativeness and sharedness would be stronger for identity fusion with 'All Muslims' (Swann et al., 2009) than with a matched measure of group identification for the same target adapted from the single item social identity measure (Postmes et al., 2013). This prediction was based on the central position that processes of identity fusion occupy in the theoretical model (**Figure 1**) and on findings from the existing literature that distinguish group identification and fusion as related but distinct forms of group affiliation (Gómez et al., 2011; Swann et al., 2012; Whitehouse and Lanman, 2014; Bortolini et al., 2018). To test this prediction, we used the same predictive models as with hypothesis one, but this time the outcome variable was a residual of fusion after the shared variance with identification was removed (and vice versa).

In comparing the resulting models we found mixed support for the hypothesis: in the model with the fusion residual as an outcome, a significant main effect was only found for transformativeness ($b = 0.09$, $p < 0.01$) while their interaction term demonstrated a significant but weak negative relationship ($b = -0.02$, $p < 0.01$). There was no relationship observed with perceptions of shared experience. Alternatively, when the identification residual was the outcome, first we observed no significant improvement in the model when measures of transformativeness, shared representation, and their interaction

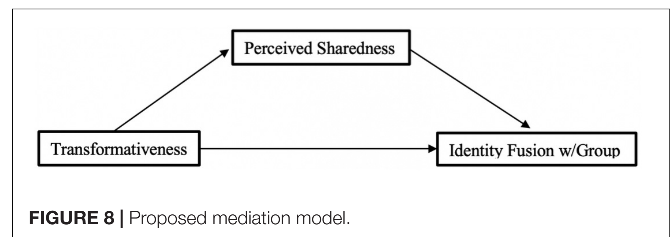

FIGURE 8 | Proposed mediation model.

were added as compared in stage 2. However, there was a relationship found with perceptions of shared experiences, $b = 07$, $p = 0.02$.

These results offer some support for the 'shared experiences pathway to fusion' model (2018), in that they support the importance of group-defining events being regarded as self-transformative and identify fusion but not for perceptions of shared experiences. We do not, however, find any strong support for the alternative hypothesis derived from the findings of Kavanagh et al. (2019b) that affiliation based on group identification is a more dominant process in Indonesia and thus that the variables expected to be associated with fusion might display a more robust relationship with identification. There was a relationship between identification and shared experiences, but the strength of the relationship was weak and fell close to conventional significance boundaries. This makes us unable to draw firm conclusions, but it is possible that the stronger relationship with identification reported in Kavanagh et al. (2019b) could be specific to progroup sacrifice measures.

Moreover, given that all the relationships observed rely on self-reports it may be that fusion is a worse predictor of self-sacrificial progroup *sentiment* in Indonesia but still a better predictor of *behavior*. Further research in Indonesia, and other Muslim majority countries, will be necessary to determine the relevant predictive power of group identification and fusion for extreme progroup *behaviors*, such as violent protests or self-sacrifice.

We note that our findings, if valid, only demonstrate a relationship between transformative group-defining experiences and levels of fusion with a collective religious identity. Higher levels of fusion have been repeatedly found to be associated with greater endorsement of extreme progroup behavior, including violence against outgroup members (for an overview see Swann and Buhrmester, 2015). However, this is not an inevitable outcome of high levels in fusion, in the case where a group has strong prohibitions against violence and values that promote charitable self-sacrifice it may be that strong pro-group impulses can be channeled into socially beneficial behavior (Swann et al., 2012, p. 452).

Yet we note that almost one in five of our sample referenced the blasphemy controversy involving a Christian governor as their group-defining experience, and that amongst the sample from the general public this accounted for almost half of the responses. This suggests that there are widespread concerns about doctrinal conformity and potential outgroup threat, despite Islam being the overwhelming majority religion (followed by 87.2% of the population in the 2010 census). Relatedly, Whitehouse (2018, p. 2) identifies high levels of fusion combined with fears of outgroup threat as posing a potent foundation to motivate "extreme self-sacrifice for the group" as well as "less deadly forms of intergroup conflict... such as fan violence and hooliganism." This is particularly concerning as in Indonesia hardline Islamist movements are growing in influence (Sakai and Fauzia, 2014; Muhtadi, 2018) and previous studies have revealed that organizations subscribing to extremist religious ideologies were the most likely to engage in lethal attacks (Asal and Rethemeyer, 2008; Webber et al., 2020). Further research is necessary to determine how contextual factors, including ideological commitment (Rogers et al., 2007; Putra and Sukabdi, 2014), interact with fusion though some research has found an interactive relationship with commitment to sacred values (Atran et al., 2014; Gómez et al., 2017).

Similarly, we recommend further research into the proposed mediating role of perceived sharedness between transformativeness and identity fusion. Our exploratory analysis of this proposed pathway did, in line with theoretical predictions, detect a partial mediation operating through perceived sharedness. However, the indirect pathway was weak and robustness checks found that relationships of similar sizes were observed for reversed causal models. Moreover, an important distinction between whether the perceptions of shared memories is generated by idiosyncratic self-reflective processes, or ascribed via more semantic or doctrinal processes, is not addressed by our current measures. In any case, we cannot draw strong inferences from the results observed and more targeted research is necessary in order to determine if the proposed mediating relationship exists or if the results observed in the current data, that suggest independent pathways and a negative interactive effect are replicated.

Limitations

As this was a cross-sectional study, we are limited with regard to what causal inferences we can make. The theoretical model we tested in this paper presents a directional and causal chain of relationships, and the associations we found provide tentative support for these relationships. However, experimental and longitudinal data is more appropriate for assessing causal relationships. We would therefore encourage future research to further examine the causal direction of the relationships we report in the study.

We note also that using single item measures for our key outcomes is less than ideal and that the visual fusion scale represents a modification of an item that has been used elsewhere to measure group identification (Schubert and Otten, 2002). Nonetheless, we follow the existing literature in treating these as related but distinguishable group bonding constructs (Swann et al., 2009; Gómez et al., 2011; Swann and Buhrmester, 2015; Bortolini et al., 2018; Kavanagh et al., 2019a).

Indonesia is the most populace Muslim country in the world, the fourth most populace country overall, and the current study examines a large sample but there is a clear need for more comparable samples from Indonesia and other non-Western contexts. Currently, the majority of the fusion literature is based on research in Western, educated, industrialized, rich, and democratic (WEIRD) countries (Henrich et al., 2010; Swann and Buhrmester, 2015) and those that are from non-WEIRD contexts have tended not to feature or compare identification measures to the focal targets of identity fusion (Whitehouse et al., 2014; Gómez et al., 2017).

Although the relationships observed broadly accord with our pre-registered hypotheses it is important to recognize that the magnitude of the relationships are relatively weak, and that the overall variation accounted for in our regression models is between 8 and 16%. Moreover, the focal variables of interest only uniquely accounted for approximately 2% in models. We are cautious then not to not overstate the overall importance of the relationships reported. However, we believe it would be misguided to dismiss these findings on this basis of their effect size. The sample under investigation was diverse, as were the events described by the participants, and as such the relatively small amount of variance may be of less importance than whether the relationships detected prove to be valid. The best way to inform theory is with further analysis of large samples from diverse populations.

The diversity of events described and differences in how they were interpreted may have meant that the group-defining prompt served to activate different responses amongst participants. For instance, outgroup threat may have been induced by some descriptions and this could have resulted in identity affirmation processes (Sherman and Cohen, 2006, pp. 205–210) whereby people more strongly affirmed their identity as an Indonesian Muslim. However, we note that in context the prompt was affirming of the participants' group membership as all participants were members of the relevant group mentioned.

This is important as engaging in activities that remind people of group membership has also been found to reduce damaging implications for self-integrity from threatening events (Sherman and Cohen, 2006, p. 189). A deeper content analysis of the responses provided that examined, for instance, the proportion of references to self vs. group, level of affective engagement, or amount of reflection could be highly informative but is beyond the scope of this paper.

Another point to note is that we cannot tell from the current data whether the results observed are related to a short-term priming effect. Longitudinal studies would be required to address whether the relationships are observed in the absence of direct priming of group-defining experiences.

The current study presents a number of findings based on data collected from Indonesian Muslims: our sample included responses from a wide range of respondents, from members of a hardline Islamist group to ordinary non-affiliated members of the public. And while Indonesia is a country that is currently experiencing issues with religious extremism (Muluk et al., 2013; Burhani, 2014; Putra and Sukabdi, 2014; Arifianto, 2018; Putra et al., 2018), we want to emphasize that the purpose of the present article was not to address extremist behaviors or sentiment, which were not examined directly in this paper. Rather we sought to test specific components of a theoretical model that links self-defining events, identity fusion with a group, and *the potential* high levels of fusion have to foster extreme sacrifice (under specific conditions). We are, however, making no specific claims as to the nature and consequences of the fusion observed in this population. Nor are we claiming that the pathway under discussion is the *only* relevant pathway for predicting extreme behaviors, this is a complex topic and there are inevitably multiple pathways (Reicher et al., 2008; Gómez et al., 2017; Ginges, 2019). For more targeted discussion of what this specific sample reveals about links between fundamentalism, fusion, group identification, and parochial attitudes in Indonesia see both Kavanagh et al. (2019b) and Yustisia et al. (2020).

CONCLUSION

We present here mixed support for the 'shared experiences pathway to fusion' model. There is substantial evidence highly fused individuals are more likely to endorse and engage in extreme pro-group actions (Swann et al., 2010a,b, Swann et al., 2014; Whitehouse et al., 2017; Bortolini et al., 2018; Kavanagh et al., 2019a). However, we note that fusion can serve as a means to motivate heroic self-sacrificing acts of devotion and kindness just as effectively as brutal suicide attacks. Identify fusion describes the nature of a specific relationship to a social group, and the strength of commitment to the values of that group but the nature of those values are group and context dependent (Swann et al., 2012). Here, we find that among a diverse group of Indonesian Muslims - who range from general members of the public to active members of hardline political Islamist groups - that there is a potential pathway to fusion with a categorical religious identity ('All Muslims') operating in parallel between the feeling that a defining group event is self-transformative and that the memory of the event is shared amongst group members. However, the relationships observed did not interact in a cumulative manner, instead a negative interaction was observed. Furthermore, the relationship with shared experiences and fusion was not replicated in analyses that sought to partial out the shared variance with a matched group identification measure. The self-transformative nature of group defining experiences may therefore be a stronger factor in contributing to the sense that an individual shares some 'group essence' with other relevant members. Further exploration of the causal pathways to identity fusion is required to establish if this relationship proves robust. This should be a priority for research on group cohesion given the established associations between identity fusion and extreme progroup sentiment and behavior.

Finally, in light of our acknowledged limitations, we make the following recommendations for future research. In order to better understand the *causal* relations in the model we encourage researchers to advance our own correlational work by using high-powered, longitudinal methodologies. We also encourage scholars interested in fusion to focus their attention on Indonesia, as Indonesia represents a nexus of multiple salient points of demography, psychology and religious fundamentalism, and there have been unexpected patterns observed with group identification acting as a stronger predictor of extreme progroup outcomes than fusion (Kavanagh et al., 2019b). More broadly we encourage a focus on collecting non-WEIRD samples in order to test theoretical generalizability especially where there are claims of universality. In line with this, scholars should be mindful of the utility and translatability of research measures that work well in WEIRD contexts. We are not suggesting such measures cannot work in non-WEIRD contexts, but simply that repeated independent validation is a necessary step in high-quality scholarship. This is why we recommend that scholars should compare and contrast the utility of competing constructs: fusion, in most cases, should be compared against group identification measures if a unique relationship is being posited. We have transparently presented our limitations, and hope to have set the stage for scholars to advance our own work.

DATA AVAILABILITY STATEMENT

All datasets generated for this study are included in the article/supplementary material. The preregistration document is available from the Open Science Framework (https://osf.io/gewmq/).

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the School of Anthropology and Museum Ethnography Research Ethics Committee, The University of Oxford (Ref No: SAME_C1A_16_015), The Ethics Committee Faculty of Psychology, The University of Indonesia (Ref No: 142/FPsi.Komite Etik/PDP.04.00/2017). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

CK, RK, and HW prepared the preregistration. CK and RK conducted data analysis and prepared the figures. CK, RK, IP, and HW wrote the manuscript (listed in order of contribution).

FUNDING

This research was supported by an Advanced Grant from the European Research Council (ERC) under the European Union's Horizon 2020 Research and Innovation Programme (Grant Agreement No. 694986).

REFERENCES

Andersen, S., Moskowitz, D., Blair, I. V., and Nosek, B. (2007). "Automatic thought," in *Social Psychology: Handbook of Basic Principals*, eds A. W. Kruglanski and E. T. Higgins (New York, NY: Guilford Publications), 133–172.

Arifianto, A. R. (2016). *Islam Nusantara: NU's Bid to Promote "Moderate Indonesian Islam" Commentary No. 114; RSIS Commentaries*. Singapore: Nanyang Technological University, 1–3.

Arifianto, A. R. (2018). Islamic campus preaching organizations in Indonesia: promoters of moderation or radicalism? *Asian Secur*. 15, 323–342. doi: 10.1080/14799855.2018.1461086

Asal, V., and Rethemeyer, R. K. (2008). The nature of the beast: organizational structures and the lethality of terrorist attacks. *J. Polit*. 70, 437–449. doi: 10.1017/s0022381608080419

Atran, S., Sheikh, H., and Gómez, A. (2014). Devoted actors sacrifice for close comrades and sacred cause. *Proc. Natl. Acad. Sci. U.S.A.* 111, 17702–17703. doi: 10.1073/pnas.1420474111

Barton, G. (2010). Indonesia: legitimacy, secular democracy, and Islam. *Polit. Policy* 38, 471–496. doi: 10.1111/j.1747-1346.2010.00244.x

Barton, G. (2014). The Gülen movement, muhammadiyah and nahdlatul ulama: progressive Islamic thought, religious philanthropy and civil society in Turkey and Indonesia. *Islam Christ. Muslim Relat*. 25, 287–301. doi: 10.1111/j.1398-9995.2009.02325.x

Bortolini, T., Newson, M., Natividade, J. C., Vázquez, A., and Gómez, A. (2018). Identity fusion predicts endorsement of pro-group behaviours targeting nationality, religion, or football in Brazilian samples. *Br. J. Soc. Psychol*. 57, 346–366. doi: 10.1111/bjso.12235

Buhrmester, M. D., Fraser, W. T., Lanman, J. A., Whitehouse, H., and Swann, W. B. (2014). When terror hits home: fused Americans saw Boston bombing victims as "family" and rushed to their aid. *Self Identity* 14, 253–270. doi: 10.1080/15298868.2014.992465

Buhrmester, M. D., Newson, M., Vázquez, A., Hattori, W. T., and Whitehouse, H. (2018). Winning at any cost: identity fusion, group essence, and maximizing ingroup advantage. *Self Identity* 17, 500–516. doi: 10.1080/15298868.2018.1452788

Burhani, A. N. (2014). Treating minorities with fatwas: a study of the Ahmadiyya community in Indonesia. *Contemp. Islam* 8, 285–301. doi: 10.1007/s11562-013-0278-3

Cohen, G. L., and Garcia, J. (2005). ' I am us': negative stereotypes as collective threats. *J. Pers. Soc. Psychol*. 89, 566–582. doi: 10.1037/0022-3514.89.4.566

Conway, M. A., Singer, J. A., and Tagini, A. (2004). The self and autobiographical memory: correspondence and coherence. *Soc. Cogn*. 22, 491–529. doi: 10.1521/soco.22.5.491.50768

Dar-Nimrod, I., and Heine, S. J. (2011). Genetic essentialism: on the deceptive determinism of DNA. *Psychol. Bull*. 137, 800–818. doi: 10.1037/a0021860

Dugas, M., and Kruglanski, A. W. (2014). The quest for significance model of radicalization: implications for the management of terrorist detainees. *Behav. Sci. Law* 32, 423–439. doi: 10.1002/bsl.2122

Eliraz, G. (2016). *Indonesia's Nahdlatul Ulama: A Tolerant, Inclusive Message to the Arab Middle East*. Washington, DC: Middle East Institute.

Faul, F., Erdfelder, E., Buchner, A., and Lang, A.-G. (2009). Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses. *Behav. Res. Methods* 41, 1149–1160. doi: 10.3758/brm.41.4.1149

Fiedler, K., Harris, C., and Schott, M. (2018). Unwarranted inferences from statistical mediation tests – An analysis of articles published in 2015. *J. Exp. Soc. Psychol*. 75, 95–102. doi: 10.1016/j.jesp.2017.11.008

Ford, J., O'Hare, D., and Henderson, R. (2013). Putting the "we" into teamwork: effects of priming personal or social identity on flight attendants' perceptions of teamwork and communication. *Hum. Fact*. 55, 499–508. doi: 10.1177/0018720812465311

Ginges, J. (2019). The moral logic of political violence. *Trends Cogn. Sci*. 23, 1–3. doi: 10.1016/j.tics.2018.11.001

Gómez, A., Brooks, M. L., Buhrmester, M. D., Vázquez, A., Jetten, J., and Swann, W. B. (2011). On the nature of identity fusion: insights into the construct and a new measure. *J. Pers. Soc. Psychol*. 100, 918–933. doi: 10.1037/a0022642

Gómez, A., López-Rodríguez, L., Sheikh, H., Ginges, J., Wilson, L., Waziri, H., et al. (2017). The devoted actor's will to fight and the spiritual dimension of human conflict. *Nat. Hum. Behav*. 1, 673–679. doi: 10.1038/s41562-017-0193-3

Haslam, S. A., Oakes, P. J., Turner, J. C., and McGarty, C. (1996). "Social identity, self-categorization, and the perceived homogeneity of ingroups and outgroups: the interaction between social motivation and cognition," in *Handbook of Motivation and Cognition. The Interpersonal Context*, Vol. 3, eds R. M. Sorrentino and E. T. Higgins (New York, NY: Guildford Press), 182–222.

Hayes, A. F. (2012). PROCESS: a versatile computational tool for observed variable mediation, moderation, and conditional process modeling. *White Paper* 1–39.Available online at: http://www.afhayes.com/public/process2012.pdf

Henrich, J., Heine, S. J., and Norenzayan, A. (2010). The weirdest people in the world? *Behav. Brain Sci*. 33, 61–135.

Hirst, W., Phelps, E. A., Meksin, R., Vaidya, C. J., Johnson, M. K., Mitchell, K. J., et al. (2015). A ten-year follow-up of a study of memory for the attack of September 11, 2001: flashbulb memories and memories for flashbulb events. *J. Exp. Psychol. Gen*. 144, 604–623. doi: 10.1037/xge0000055

Hogg, M. A. (2006). "Social identity theory," in *Contemporary Social Psychological Theories*, ed. P. J. Burke (Palo Alto, CA: Stanford University Press), 111–136.

Hogg, M. A., and Turner, J. C. (1987). Intergroup behaviour, self-stereotyping and the salience of social categories. *Br. J. Soc. Psychol*. 26, 325–340. doi: 10.1111/j.2044-8309.1987.tb00795.x

Hood, R. W., Hill, P. C., and Williamson, W. P. (2005). *The Psychology of Religious Fundamentalism*. New York, NY: Guilford Press.

Hornsey, M. J. (2008). Social identity theory and self-categorization theory: a historical review. *Soc. Pers. Psychol. Compass* 2, 204–222. doi: 10.1037/bul0000156

Hosen, N. (2016). *Islam Nusantara: A Local Islam with Global Ambitions?* Melbourne: Indonesia at Melbourne.

Jones, S. (1984). The contraction and expansion of the" Umat" and the role of the nahdatul ulama in Indonesia. *Indonesia* 38, 1–20.

Kavanagh, C. M., Jong, J., McKay, R., and Whitehouse, H. (2019a). Positive experiences of high arousal martial arts rituals are linked to identity fusion and costly pro-group actions. *Eur. J. Soc. Psychol*. 49, 461–481. doi: 10.1002/ejsp.2514

Kavanagh, C. M., Wibisono, S., Kapitány, R., Yustisia, W., Putra, I. E., Rufaidah, A., et al. (2019b). Exploring the role of identity fusion and group identification in predicting parochialism amongst Indonesian Islamic groups [Preprint]. *PsyArXiv [Preprint]*

Kerr, N. L. (1998). HARKing: hypothesizing after the results are known. *Pers. Soc. Psychol. Rev*. 2, 196–217. doi: 10.1207/s15327957pspr0203_4

Khisbiyah, Y. (2009). "Contested discourses on violence, social justice, and peacebuilding among Indonesian Muslims," in *Peace Psychology in Asia*, eds N. Noor and C. Montiel (New York, NY: Springer), 123–145. doi: 10.1007/978-1-4419-0143-9_7

Kruglanski, A. W., Bélanger, J. J., and Gunaratna, R. (2019). *The Three Pillars of Radicalization: Needs, Narratives, and Networks*. New York, NY: Oxford University Press.

Kruglanski, A. W., Chen, X., Dechesne, M., Fishman, S., and Orehek, E. (2009). Fully committed: suicide bombers' motivation and the quest for personal significance. *Polit. Psychol.* 30, 331–357. doi: 10.1111/j.1467-9221.2009.00698.x

Kruglanski, A. W., Gelfand, M. J., Bélanger, J. J., Sheveland, A., Hetiarachchi, M., and Gunaratna, R. (2014). The psychology of radicalization and deradicalization: how significance quest impacts violent extremism. *Polit. Psychol.* 35, 69–93. doi: 10.1111/pops.12163

Machmudi, Y. (2011). *Islamizing Indonesia: The Rise of Jemaah Tarbiyah and the Prosperous Justice Party (PKS)*. Canberra: Australian National University Press.

McLeish, K. N., and Oxoby, R. J. (2011). Social interactions and the salience of social identity. *J. Econ. Psychol.* 32, 172–178. doi: 10.1016/j.joep.2010.11.003

Milla, M. N., Putra, I. E., and Umam, A. N. (2019). Stories from jihadists: significance, identity, and radicalization through the call for jihad. *Peace Confl.* 25, 111–121. doi: 10.1037/pac0000371

Muhtadi, B. (2018). Explaining the 2016 islamist mobilisation in Indonesia: religious intolerance, militant groups and the politics of accommodation AU - Mietzner, Marcus. *Asian Stud. Rev.* 42, 479–497. doi: 10.1080/10357823.2018.1473335

Muluk, H., Sumaktoyo, N. G., and Ruth, D. M. (2013). Jihad as justification: national survey evidence of belief in violent jihad as a mediating factor for sacred violence among Muslims in Indonesia. *Asian J. Soc. Psychol.* 16, 101–111. doi: 10.1111/ajsp.12002

Newson, M., Buhrmester, M. D., and Whitehouse, H. (2016). Explaining lifelong loyalty: the role of identity fusion and self-shaping group events. *PLoS One* 11:e0160427. doi: 10.1371/journal.pone.0160427

Nosek, B. A., Ebersole, C. R., DeHaven, A. C., and Mellor, D. T. (2018). The preregistration revolution. *Proc. Natl. Acad. Sci. U.S.A.* 115, 2600–2606. doi: 10.1073/pnas.1708274114

Nurdin, A. A. (2009). *Islamic Political Party and Democracy: A Comparative Study of PKS in Indonesia and PAS in Malaysia (1998-2005)*. Singapore: National University of Singapore.

Permata, A.-N. (2016). "A study of the internal dynamics of the prosperous justice party and jamaah tarbiyah," in *Islam, Politics and Change: The Indonesian Experience After the Fall of Suharto*, eds K. van Dijk and S. Zuhri (Leiden: Leiden University Press), 29–78.

Postmes, T., Haslam, S. A., and Jans, L. (2013). A single-item measure of social identification: reliability, validity, and utility. *Br. J. Soc. Psychol.* 52, 597–617. doi: 10.1111/bjso.12006

Pribadi, Y. (2013). Religious networks in Madura: Pesantren, Nahdlatul Ulama, and kiai as the core of santri culture. *Al-Jami'ah J. Islam. Stud.* 51, 1–32.

Putra, I. E., Holtz, P., and Rufaedah, A. (2018). Who is to blame, the victims or the perpetrators? A study to understand a series of violence targeting the accused heretic group Ahmadiyya. *Psychol. Relig. Spiritual.* 10, 166–173. doi: 10.1037/rel0000186

Putra, I. E., and Sukabdi, Z. A. (2013). Basic concepts and reasons behind the emergence of religious terror activities in Indonesia: an inside view. *Asian J. Soc. Psychol.* 16, 83–91. doi: 10.1111/ajsp.12001

Putra, I. E., and Sukabdi, Z. A. (2014). Can Islamic fundamentalism relate to nonviolent support? The role of certain conditions in moderating the effect of Islamic fundamentalism on supporting acts of terrorism. *Peace Confl.* 20, 583–589. doi: 10.1037/pac0000060

Reicher, S., Haslam, S. A., and Rath, R. (2008). Making a virtue of evil: a five-step social identity model of the development of collective hate. *Soc. Pers. Psychol. Compass* 2, 1313–1344. doi: 10.1111/j.1751-9004.2008.00113.x

Roccas, S., and Brewer, M. B. (2002). Social identity complexity. *Pers. Soc. Psychol. Rev.* 6, 88–106. doi: 10.1207/s15327957pspr0602_01

Rogers, M. B., Loewenthal, K. M., Lewis, C. A., Amlôt, R., Cinnirella, M., and Ansari, H. (2007). The role of religious fundamentalism in terrorist violence: a social psychological analysis. *Int. Rev. Psychiatry* 19, 253–262. doi: 10.1080/09540260701349399

Rosenberg, M. (1987). "Depersonalisation: the loss of personal identity," in *Self and Identity: Perspectives Across the Lifespan*, eds T. Honess and K. M. Yardley (Abingdon: Routledge), 193–206.

Sakai, M., and Fauzia, A. (2014). Islamic orientations in contemporary Indonesia: Islamism on the rise? *Asian Ethn.* 15, 41–61. doi: 10.1080/14631369.2013.784513

Schubert, T. W., and Otten, S. (2002). Overlap of self, ingroup, and outgroup: pictorial measures of self-categorization. *Self Identity* 1, 353–376. doi: 10.1080/152988602760328012

Sherman, D. K., and Cohen, G. L. (2006). The psychology of self-defense: self-affirmation theory. *Adv. Exp. Soc. Psychol.* 38, 183–242. doi: 10.1016/s0065-2601(06)38004-5

Sim, J. J., Goyle, A., McKedy, W., Eidelman, S., and Correll, J. (2014). How social identity shapes the working self-concept. *J. Exp. Soc. Psychol.* 55, 271–277. doi: 10.1016/j.jesp.2014.07.015

Simmons, J. P., Nelson, L. D., and Simonsohn, U. (2011). False-positive psychology: undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychol. Sci.* 22, 1359–1366. doi: 10.1177/0956797611417632

Sirry, M. (2010). The public expression of traditional Islam: the Pesantren and civil society in post-Suharto Indonesia. *Muslim World* 100, 60–77. doi: 10.1111/j.1478-1913.2009.01302.x

Spears, R. (2001). "The interaction between the individual and the collective self: self-categorization in context," in *Individual Self, Relational Self, Collective Self*, eds C. Sedikides and M. B. Brewer (Hove: Psychology Press), 171–198.

Swann, W. B., and Buhrmester, M. D. (2015). Identity fusion. *Curr. Dir. Psychol. Sci.* 24, 52–57.

Swann, W. B., Buhrmester, M. D., Gómez, A., Jetten, J., Bastian, B., Vázquez, A., et al. (2014). What makes a group worth dying for? Identity fusion fosters feelings of familial ties, promoting self-sacrifice. *J. Pers. Soc. Psychol.* 106, 912–926. doi: 10.1037/a0036089

Swann, W. B., Gómez, A., Dovidio, J. F., Hart, S., and Jetten, J. (2010a). Dying and killing for one's group: identity fusion moderates responses to intergroup versions of the trolley problem. *Psychol. Sci.* 21, 1176–1183. doi: 10.1177/0956797610376656

Swann, W. B., Gómez, A., Huici, C., Morales, J. F., and Hixon, J. G. (2010b). Identity fusion and self-sacrifice: arousal as a catalyst of pro-group fighting, dying, and helping behavior. *J. Pers. Soc. Psychol.* 99, 824–841. doi: 10.1037/a0020014

Swann, W. B., Gómez, A., Seyle, D. C., Morales, J. F., and Huici, C. (2009). Identity fusion: the interplay of personal and social identities in extreme group behavior. *J. Pers. Soc. Psychol.* 96, 995–1011. doi: 10.1037/a0013668

Swann, W. B., Jetten, J., Gómez, A., Whitehouse, H., and Bastian, B. (2012). When group membership gets personal: a theory of identity fusion. *Psychol. Rev.* 119, 441–456. doi: 10.1037/a0028589

Syed, M., and McLean, K. C. (2016). Understanding identity integration: theoretical, methodological, and applied issues. *J. Adolesc.* 47, 109–118. doi: 10.1016/j.adolescence.2015.09.005

Tajfel, H., and Turner, J. C. (1985). "The social identity theory of intergroup behavior," in *Psychology of Intergroup Relations*, 2nd Edn, Vol. 2, eds S. Worchel and W. G. Austin (Wokingham: Nelson-Hall), 7–24.

Takwin, B., Mudzakkir, A., Salim, H., Ahnaf, M. I., and Hamdi, A. Z. (2016). *Studies on Tolerance and Radicalism in Indonesia: Lessons from 4 Areas (Tasikmalaya, Yogyakarta, Bojonegoro and Kupang)*. Jakarta: The Wahid Institute.

Tan, C. (2012). *Islamic Education and Indoctrination: The Case in Indonesia*. Abingdon: Routledge.

Thoemmes, F. (2015). Reversing arrows in mediation models does not distinguish plausible models. *Basic Appl. Soc. Psychol.* 37, 226–234. doi: 10.1080/01973533.2015.1049351

Turner, J. C. (1987). "A self-categorization theory," in *Rediscovering the Social Group: A Self-Categorization Theory*, eds J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, and M. S. Wetherell (Oxford: Blackwell), 42–67.

Vázquez, A., Gómez, Á., Ordoñana, J. R., Swann, W. B., and Whitehouse, H. (2017). Sharing genes fosters identity fusion and altruism. *Self Identity* 16, 684–702. doi: 10.1080/15298868.2017.1296887

Ward, K. (2009). Non-violent extremists? Hizbut Tahrir Indonesia. *Aust. J. Int. Aff.* 63, 149–164. doi: 10.1080/10357710902895103

Webber, D., Kruglanski, A., Molinario, E., and Jasko, K. (2020). Ideologies that justify political violence. *Curr. Opin. Behav. Sci.* 34, 107–111. doi: 10.1016/j.cobeha.2020.01.004

Whitehouse, H. (1992). Memorable religions: transmission, codification, and change in divergent melanesian contexts. *Man* 27, 777–797.

Whitehouse, H. (2013). "Religion, cohesion and hostility," in *Religion, Intolerance and Conflict: A Scientific and Conceptual Investigation*, eds S. Clarke, R. Powell, and J. Savulescu (Oxford: Oxford University Press).

Whitehouse, H. (2018). Dying for the group: towards a general theory of extreme self-sacrifice. *Behav. Brain Sci.* 41, 1–64. doi: 10.1017/S0140525X18000249

Whitehouse, H., and Kavanagh, C. M. (in press). "What is the role of ritual in binding communities together?," in *Oxford Handbook for the Cognitive Science of Religion*, ed. J. Barrett (Oxford: Oxford University Press).

Whitehouse, H., and Lanman, J. A. (2014). The ties that bind us: ritual, fusion and identification. *Curr. Anthropol.* 55, 674–695. doi: 10.1086/678698

Whitehouse, H., Jong, J., Buhrmester, M. D., Gómez, A., Bastian, B., Kavanagh, C. M., et al. (2017). The evolution of extreme cooperation via shared dysphoric experiences. *Sci. Rep.* 7:44292. doi: 10.1038/srep44292

Whitehouse, H., McQuinn, B., Buhrmester, M. D., and Swann, W. B. (2014). Brothers in arms: Libyan revolutionaries bond like family. *Proc. Natl. Acad. Sci. U.S.A.* 111, 17783–17785. doi: 10.1073/pnas.1416284111

Wicherts, J. M., Veldkamp, C. L., Augusteijn, H. E., Bakker, M., Van Aert, R., and Van Assen, M. A. (2016). Degrees of freedom in planning, running, analyzing, and reporting psychological studies: a checklist to avoid p-hacking. *Front. Psychol.* 7:1832. doi: 10.3389/fpsyg.2016.01832

Wieringa, S. E., and Katjasungkana, N. (2018). *Propaganda and the Genocide in Indonesia: Imagined Evil*. Abingdon: Routledge.

Yustisia, W., Putra, I. E., Kavanagh, C., Whitehouse, H., and Rufaidah, A. (2020). The role of religious fundamentalism and tightness-looseness in promoting collective narcissism and extreme group behavior. *Psychol. Relig. Spiritual.* 12, 231–240. doi: 0.1037/rel0000269

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Kavanagh, Kapitány, Putra and Whitehouse. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

ORIGINAL RESEARCH
published: 11 June 2020
doi: 10.3389/fpsyg.2020.01059

Do Counter-Narratives Reduce Support for ISIS? Yes, but Not for Their Target Audience

Jocelyn J. Bélanger[1], Claudia F. Nisa[1], Birga M. Schumpe[1], Tsion Gurmu[1], Michael J. Williams[2] and Idhamsyah Eka Putra[3]*

[1] Department of Psychology, New York University Abu Dhabi, Abu Dhabi, United Arab Emirates, [2] Department of Psychology, American University in the Emirates, Dubai, United Arab Emirates, [3] Department of Psychology, Persada Indonesia University, Jakarta, Indonesia

The purpose of this research is to experimentally test whether counter-narratives are effective to reduce people's support and willingness to join Islamic State of Iraq and Syria (ISIS). Integrating psychological reactance theory (Brehm, 1966) and need for closure (NFC; Kruglanski, 2004), we predicted that exposing people to counter-narratives when they are at greater risk of radicalization (high NFC individuals) would be counterproductive and enhance their support for ISIS. Participants (N = 886 American Muslims) were randomly assigned to a 3 × 3 factorial experimental design varying the source (United States Government, Imam, ISIS defector), and the content (social, political, and religious) of the counter-narrative while comparing these groups to a control message. Results show an overall small positive effect of counter-narratives ($\beta = -0.107$, $p = 0.043$), but also evidence for greater support for ISIS in individuals at greater risk of radicalization ($\beta = 0.154$, $p = 0.005$). Results also show that the content was more important than the source: A political narrative was the most effective, and this result is consistent across different sources although an ISIS defector is the most effective messenger. These findings challenge the widespread assumption that counter-narratives are effective against violent extremism. In fact, they accelerate the very phenomenon that governments and policy makers are trying to undermine. Therefore, policy makers should avoid including them in their armamentarium to tackle violent extremism.

Keywords: counter-narratives, violent extremism, need for closure, psychological reactance, ISIS

OPEN ACCESS

Edited by:
María Angeles Peláez-Fernández, University of Malaga, Spain

Reviewed by:
Paul J. Watson, The University of New Mexico, United States
Moayad Mohammad Alrwajfah, University of Malaga, Spain

****Correspondence:***
Jocelyn J. Bélanger
jocelyn.belanger@gmail.com

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *25 February 2020*
Accepted: *27 April 2020*
Published: *11 June 2020*

Citation:
Bélanger JJ, Nisa CF, Schumpe BM, Gurmu T, Williams MJ and Putra IE (2020) Do Counter-Narratives Reduce Support for ISIS? Yes, but Not for Their Target Audience. Front. Psychol. 11:1059. doi: 10.3389/fpsyg.2020.01059

INTRODUCTION

Despite its recent territorial loss, the Islamic State of Iraq and Syria (ISIS) remains one of the deadliest, most active terrorist groups of our time (Institute for Economics and Peace, 2018). ISIS was catapulted to such notoriety with its effective online propaganda machine capable of flooding the web with slick, extremist digital content (e.g., beheadings, crucifixions, and mass executions), striking fear in the hearts of its enemies and galvanizing new recruits all over the world—up to 30,000 foreign fighters according to the United Nations Security Council (2019). The spread and reach of such communication apparatus have drawn over 60 jihadi movements in 30 countries to pledge allegiance to ISIS (Mohammed, 2014), becoming franchises of a global jihadi brand wreaking havoc in its wake. In the United States, there is a long history of homegrown networks inspired

by radical Islam: since 9/11, of the 476 individuals arrested domestically for being connected to jihadist terrorism, the overwhelming majority (75%) has been United States citizens (Williams et al., 2018). Beyond flagging and taking down ISIS' online content, counterterrorism strategies have relied primarily on reducing the appeal of ISIS' ideology using counter-narratives, defined as an "intentional and direct communication strategy, within a political, policy, or military context, to discredit messaging of a violent extremist nature" (Ferguson, 2016, p. 8). In a race to win the battle of "the hearts and the minds," a slew of social media campaigns attempt to critique ISIS's legitimacy on moral and religious grounds. Some are state-sponsored messages (e.g., United States State Department "Run—do not walk to ISIS land"); others include appeals from religious clerics or ISIS defectors as they are both perceived to be credible voices to challenge ISIS' narrative.

But how effective are counter-narratives to break the jihadi brand? Despite the widespread assumption among policy makers and practitioners that counter-narratives are successful in preventing violent extremism, scholars have noted the absence of empirical data to substantiate this claim (Ferguson, 2016; Rosand and Winterbotham, 2019)—one of the most glaring gaps in the countering violent extremism literature. Here we provide the first ever experimental test of the effectiveness of counter-narratives to reduce support for ISIS in a sample of American Muslims. To be sure, there is nothing in the Quran that permits terrorism, and the conflation of Islam and terrorism is erroneous. Extremism knows no boundaries; people from any faith (e.g., Christianity, Judaism, etc.), or political affiliation (e.g., left or right wing) can radicalize and support violence to further their ideology. Although non-Muslims could also be influenced by ISIS' propaganda, the present study surveys American Muslims for the following reasons. First, ISIS' propaganda directly targets Muslims with the use of Islamic concepts to create a narrative whereby fighting against the West is a religious duty (Ozeren et al., 2018). For example, ISIS encourages Muslims to *hijra* (i.e., migrate for the sake of Allah) to their proclaimed *caliphate* (i.e., an Islamic state under the leadership of a caliph, a person considered the successor to the Prophet Muhammad), and conduct *jihad* (i.e., a struggle or fight against the enemies of Islam). Second, the United States being one of the main targets of Islamist terrorism (Crenshaw, 2010, 2019), ISIS propagandists are keen on recruiting American Muslims because they live in the United States and are, thus, more apt to perpetrate terrorist attacks on American soil (Kruglanski et al., 2019). Third, verses of the Quran are often used in counter-narrative strategies to prevent extremism; knowing whether these verses are actually effective in steering American Muslims away from ISIS would be useful to policy makers and practitioners.

This evaluation is crucial on practical grounds because there has been no systematic effort to provide empirical, let alone experimental, evidence for the effectiveness of counter-narratives. This is a concern given the sizable resources that could potentially be wasted in a strategy with unclear benefits. Furthermore, on theoretical grounds, there are also compelling arguments against the use of counter-narratives. Combining two, hitherto separated, theoretical strands, namely psychological reactance theory and need for closure (NFC), we hypothesized that individuals at greater risk of radicalization (high *need for closure* individuals) who harbor rigid beliefs may display greater psychological reactance when exposed to communication attempts to change their worldview. Consequently, counter-narratives may produce the opposite of the desired effect and increase people's support for violent extremist groups.

PSYCHOLOGICAL REACTANCE

The present work is grounded in psychological reactance theory (Brehm, 1966), which posits that freedom is a fundamental motivation that generates strong negative reactions when it is threatened or eliminated. The psychological state following a threat to one's personal freedom is called *reactance*. Psychological reactance has been defined as an aversive state, involving hostile and aggressive feelings as well as negative cognitions (Wicklund, 1974; White and Zimbardo, 1980; Seltzer, 1983; Dillard and Meijnders, 2002; Nabi, 2002; Dillard and Shen, 2005; Quick and Stephenson, 2007). When experiencing reactance, individuals engage in various actions to relieve this feeling and reestablish their freedom. This is why persuasive messages often produce results at odds with their intent (Brehm and Cole, 1966; Burgoon et al., 2002; Schüz et al., 2013). For example, individuals are more likely to engage in behaviors that are forbidden and harbor more positive attitudes toward them than when they are not proscribed ("boomerang effect," Burgoon et al., 2002; Rosenberg and Siegel, 2018). Likewise, when exposed to counter-attitudinal information, individuals tend to derogate the source of the message or engage in counter-arguing (Hovland et al., 1949; Brehm, 1966; Worchel and Brehm, 1970). Pomeranz et al. (1995) have also shown that people are more likely to dismiss and resist a persuasive appeal if it targets an attitude toward which they are strongly committed.

In the realm of political attitudes, psychological reactance research has shown that, for both conservatives and liberals, exposure to ideologically dissonant information produces political polarization (Nisbet et al., 2015). In a sample of American students, Meirick and Nisbett (2011) found that reactance due to political advertising is "associated directly with more negative cognitive responses, ad, and candidate evaluations and indirectly with lower intention to vote for the candidate supported by the ad" (p. 666). Results from a field experiment also conducted in the United States by Matland and Murray (2013) revealed that social pressure to increase voter turnout backfired and produced anger and hostility toward the message sponsor. Climate change skeptics have also been found to be more likely to display reactance (vs. a control group) when exposed to a message mentioning that there is scientific consensus regarding this topic (Ma et al., 2019). Likewise, research by Zhang (2019) has shown that persuasive appeals in favor of ethical consumption resulted in reactance as evinced by negative appraisal of the source and negative attitudes toward the position advocated.

Extending the foregoing notions to violent extremism, one important question is who may be more likely to display psychological reactance when exposed to a counter-narrative

against ISIS? The answer might be individuals with high NFC—people characterized by a desire for firm and unambiguous worldviews (Kruglanski, 2004), who have been shown to be at greater risk of adhering to radical narratives (Webber et al., 2018). Exposing them to information that contradicts their firmly entrenched beliefs may be counterproductive by invigorating their ideological convictions. We now turn to this concept.

NEED FOR COGNITIVE CLOSURE

The NFC is defined as a "desire for a firm answer to a question, any firm answer as compared to confusion, and/or ambiguity" (Kruglanski, 2004, p. 6). It's an epistemic motivation that influences how people process information and make judgments. Individuals with high NFC are driven by obtaining and maintaining closure, meaning that they tend to rapidly "seize" on information permitting a judgment on a given topic and "freeze" on such judgment, thus becoming closed-minded and relatively impervious to new relevant information (Kruglanski and Webster, 1996). Furthermore, NFC is associated with a preference for worldviews that "assume the absolute nature of values and the existence of definite truths" (Golec de Zavala and Van Bergh, 2007, p. 587) because they are stable and predictable belief systems that reduce the probability of having to deal with ambiguity. In contrast, individuals with low NFC eschew binding and definite views.

Empirical research has shown that NFC influences a range of intrapersonal, interpersonal, and group phenomena (see Kruglanski, 2004, for a review) associated with creating consensus and developing a sense of shared reality with other group members (Kruglanski et al., 2006). For example, NFC is associated with exerting and experiencing uniformity pressures (De Grada et al., 1999), agreeing with other group members (Kruglanski et al., 1993), and rejecting group members who express opinions at odds with the group consensus (Kruglanski and Webster, 1991). In the same vein, evidence suggests that NFC is associated with preserving group norms across varying generations of membership (Livi et al., 2007) and preferring unequivocal directives (i.e., harsh power tactics) from leaders (Bélanger et al., 2015a,b).

Radical narratives, such as the one promulgated by ISIS, are attractive to those high in NFC because they depict simplistic, "black-and-white," Manichean perspectives, whereby good and evil are perpetually locked into an antagonistic struggle, and aggression against the out-group is justified. Furthermore, radical groups are particularly effective in reducing uncertainty given that they are highly structured, have clearly defined goals, and provide a clear sense of purpose and identity (Hogg et al., 2007; Van Den Bos et al., 2007; Dugas et al., 2016). Consistent with this proposition, Webber et al. (2018) found correlational and experimental evidence showing that NFC is related to being unwilling to compromise on important ideological values and endorsing non-normative ideals associated with one's political party. In large samples of individuals imprisoned for their affiliation with different terrorist organizations (i.e., ISIS, Liberation Tigers of Tamil Eelam), the same authors found that NFC is associated with supporting suicide bombings and armed struggle to further one's ideology. In sum then, individuals with high NFC are at greater risk of radicalization and potentially more likely to display reactance when exposed to a persuasive message crafted to challenge their firmly entrenched beliefs, destabilizing their sense of certainty and closure. The following study sought to examine this proposition.

THE PRESENT RESEARCH

The purpose of this research was to test the effect of counter-narratives to reduce support for ISIS using a 3 × 3 factorial experimental design varying the source of the narrative (United States Government, ISIS defector, and Imam) and the content of the narrative (social, political, or religious narratives) while comparing these groups to a control message. Furthermore, we examine whether the effect of counter-narratives holds for their critical target audience: individuals with high NFC who are at greater risk of radicalization (Webber et al., 2018; Van Den Bos, 2018).

These sources and their content were chosen for theoretical and practical reasons. First, from a theoretical standpoint, research has found that ISIS' propaganda revolves around "four distinct, yet entangled narratives" (Pellerin, 2016 p. 11): (1) social (establishing a better society), (2) political (bringing a new world order through a global caliphate), (3) religious (using the Quran to legitimize violence), and (4) moral (destroying the West, a symbol of moral decay). We reasoned that, if ISIS has had success recruiting with these themes, they might also be effective in preventing individuals from joining ISIS. In a counter-narrative context, there is always a moral component, an indication that one mode of being is morally reprehensible. For this reason, the social, political, and religious counter-narratives described in the methods section below end with the following moral assertion: "And this is why, violence by the Islamic State (also known as ISIS) is unacceptable." Second, from a practical standpoint, the counter-narratives in this study model existing counter-narratives used against ISIS (e.g., see Counter-narrative toolkit, n.d.; Extreme Dialogue, n.d.; and Hedayah, n.d.). This was to ensure the content validity of our messages.

MATERIALS AND METHODS

Participants and Procedure

Expecting medium effect sizes and setting power at 0.80, a sample size of 77 participants per experimental condition was suggested using GPower (Faul et al., 2009). Eight hundred eighty-six American Muslims were recruited using Qualtrics® panel service (444 women, 442 men; M_{age} = 39.42 years, and SD_{age} = 9.31 years; ethnicity: 68.5% white Caucasians, 1.9% Latinos, 14.1% Black/Africans, 8.7% Asians, 5.4% Arabs, and 1.4% Other; education: 6% high school, 9.1% some college/vocational, 21.6% completed college/vocational, 13.9% some postgraduate studies, and 49.4% completed postgraduate degree; and political preferences: 2.4% far left, 30.4% liberal,

29.9% moderates, 30.3% conservatives, and 7% far right). See **Table 1** for demographics.

Participants were invited to complete a short survey on political activism. After obtaining their written consent[1], the importance of religion and participants' need for cognitive closure was measured, after which they were randomly assigned to one of 10 experimental conditions. Before being exposed to the counter-message, participants were told that "in recent years, the social and political situation in Iraq and Syria has been extremely volatile and unsettling," that "some people have shared what they think and feel about this conflict," and that they would read a short paragraph about their opinion and then answer some questions. The dependent variable—support for ISIS—was measured after exposure to the counter-narrative. This online procedure is in line with terrorist organizations that have been using online platforms effectively to recruit, radicalize, and glamorize the use of violence to further their political agendas (Von Behr et al., 2013; Aly et al., 2017). Whether it is through e-magazines, social media, or online forums, virtually all terrorist organizations have moved their communication efforts to cyberspace (Weimann, 2014), and narratives promoting political violence are readily accessible to anyone in a matter of clicks.

Counter-Narratives

Each counter-narrative was first introduced by the following paragraph:

[1]The research protocol was approved by New York University Abu Dhabi Institutional Review board (protocol #043-2017).

TABLE 1 | Demographic profile distribution (N = 886).

	Demographic value	Frequency	%
Gender	Male	442	49.9
	Female	444	50.1
Age	18–24	78	8.8
	25–34	127	14.3
	35–49	568	64.1
	50–64	107	12.1
	65+	6	0.7
Ethnicity	Arab	48	5.4
	Asian	77	8.7
	Black	125	14.1
	Caucasian	607	68.5
	Hispanic	17	1.9
	Other	12	1.4
Education	Completed high school	53	6.0
	Some college/vocational school	81	9.1
	Completed college/vocational school	191	21.6
	Some postgraduate	123	13.9
	Completed postgraduate	438	49.4
Political preferences	Far-left	21	2.4
	Liberal	269	30.4
	Moderate	264	29.9
	Conservative	268	30.3
	Far-right	62	7.0

"In recent years, the social and political situation in Iraq and Syria has been extremely volatile and unsettling. Some people have shared what they think and feel about this conflict. In the following section, you will read a short paragraph about their opinion."

Manipulating the Source

The source of the counter-narrative was specified after the introductory paragraph in the following ways: "an Islamic State defector has said" (in the defector condition), "an Imam has said" (in the Imam condition), and "the United States Government has said" (in the United States Government condition).

Manipulating the Content

After mentioning the source of the counter-narrative, the content was manipulated with the following messages inspired by real counter-narrative campaigns.[2]

Social counter-narrative

"We have seen it time and again, Islamist groups fighting in Iraq and Syria have committed unspeakable acts of cruelty against innocent people. They destroyed basic infrastructure such as schools, hospitals, sewage treatment plants, power generation, roads, and telecommunication, leaving people scrounging for food and water, and in desperate need of shelter and warm clothing. These ruthless groups have also plundered public resources, prevented old people from going to hospitals, and killed innocent women and children. Innocent civilians have greatly suffered and died because of their reckless actions. And this is why violence by the Islamic State (also known as ISIS) is unacceptable."

Political counter-narrative

"We have seen it time and again, Islamist groups fighting in Iraq and Syria are arrogant opportunists driven by power and only wish to further their own selfish interests. They exaggerate, twist, and turn facts to convince people to fight for them. They can be very charming and persuasive, but they lie, cheat, and fool people into thinking they should obey them and give them money. If that doesn't work, they'll take advantage of your weaknesses: loneliness, insecurity, or simple ignorance, to achieve their political and financial goals. And this is why violence by the Islamic State (also known as ISIS) is unacceptable."

Religious counter-narrative

"In the Quran, there is a Surah, "Surah 5, Al-Maida, Ayah 32" that says something important, it says: "*That is why We ordained for the Children of Israel that whoever takes a life—unless as a punishment for murder or mischief in the land—it will be as if they killed all of humanity; and whoever saves a life, it will be as if they saved all of humanity. Although Our messengers already came to them with clear proofs, many of them still transgressed afterwards*

[2]The social, political, and religious counter-narratives were inspired by the following sources, respectively:
https://www.military.com/video/operations-and-strategy/terrorism/welcome-to-the-islamic-state-land/3775821940001
https://www.youtube.com/watch?v=3Lb7J6WDZpw
https://www.youtube.com/watch?v=ceaaS8-mj-k

through the land." And this is why violence by the Islamic State (also known as ISIS) is unacceptable."

Control Condition

Participants who were randomly assigned to the control condition were exposed to the following political blurb to ensure that participants across all conditions were exposed to content related to politics, which were also of equal length.

"For thousands of years, the study of political systems has been understood as inseparable from the study of social life as a whole. In the following section, you will read a short paragraph about the study of political systems. After reading it carefully, you will complete a short questionnaire.

A political system is a framework which defines acceptable political methods within a given society. The history of political thought can be traced back to early antiquity, with seminal works such as Plato's Republic, Aristotle's Politics and the works of Confucius. A variety of methods are deployed in politics, which include promoting one's own political views among people, negotiation with other political subjects, making laws, and exercising force, including warfare against adversaries. Politics is exercised on a wide range of social levels, from clans and tribes of traditional societies, through modern local governments, companies and institutions up to sovereign states, to the international level."

Measures

Need for Cognitive Closure

Participants' need for cognitive closure (M = 5.11, SD = 1.23) was measured using two items taken from Roets and Van Hiel's (2011) short scale (i.e., "I enjoy having a clear and structured mode of life" and "I dislike unpredictable situations"). The items were correlated ($r_s = 0.41$, $p < 0.001$) and were, thus, averaged. Participants were asked to rate the extent to which they agreed to each item on a seven-point scale ranging from one (*Not agree at all*) to seven (*Very strongly agree*).

Importance of Religion

The extent to which participants consider religion important (M = 5.66, SD = 1.34) was measured with a single item ("Practicing my religious or spiritual beliefs is important for me") on a seven-point scale ranging from one (*Not agree at all*) to seven (*Very strongly agree*).

Support for ISIS

Participants' support for ISIS (M = 3.03, SD = 1.55) was measured using five items (α = 0.91) that were averaged. These items were adapted from previous work on violent extremism (Schumpe et al., 2018a,b). Sample items include "I have a favorable opinion toward the Islamic State (i.e., ISIS)," "I like what the Islamic State (i.e., ISIS) is doing," and "I would consider joining this group." Participants were asked to rate the extent to which they agreed to each item on a seven-point scale ranging from one (*Not agree at all*) to seven (*Very strongly agree*).

Data Availability

The questions of our survey are included in the **Appendix**. Furthermore, the data supporting the findings of this study have been deposited in the Open Science Foundation repository: https://osf.io/jsxk6/?view_only=a300e008a90a403c90c14be4d686d211.

RESULTS

Counter-Narrative Main Effects

We display support for ISIS across all experimental conditions in **Figure 1**. **Table 2** presents four regression models predicting support for ISIS, testing several features of counter-narratives, and adjusting for sociodemographic variables (age, gender, education, political preferences, importance of religion, and ethnicity). The dependent variable, support for ISIS, was not normally distributed; therefore, all analyses were conducted with the bias-corrected and accelerated bootstrap method (5,000

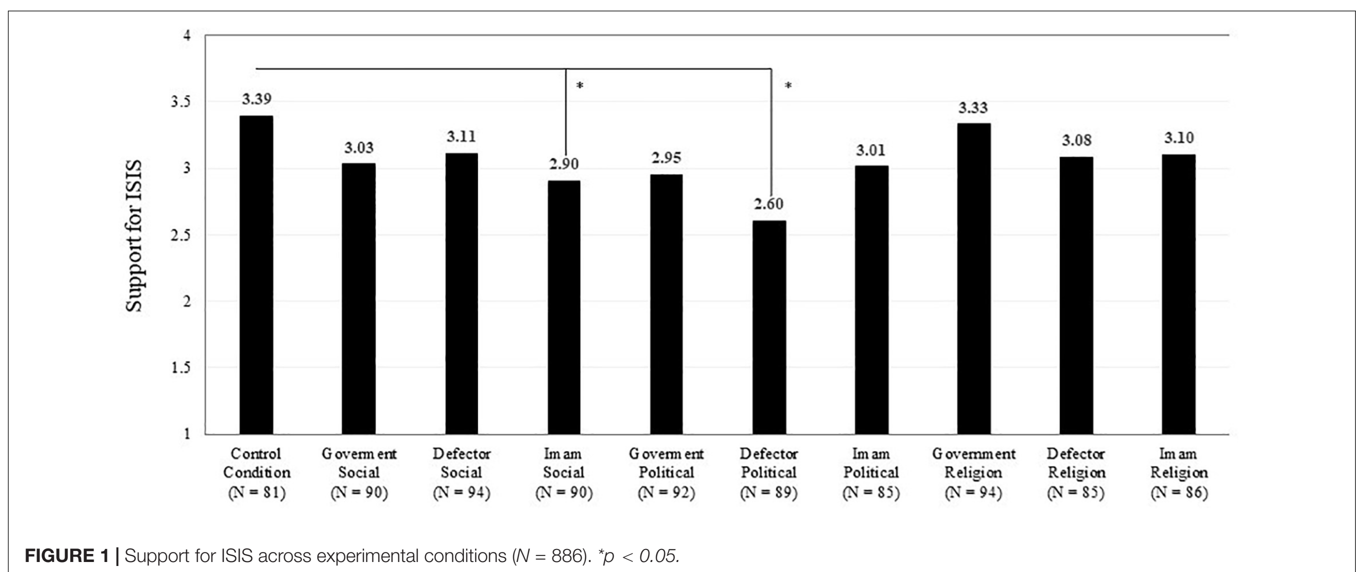

FIGURE 1 | Support for ISIS across experimental conditions (N = 886). *$p < 0.05$.

TABLE 2 | Standardized regression coefficients predicting support for ISIS (N = 886).

Regression models predicting support for ISIS	(1)	(2)	(3)	(4)
Age	0.084	0.075	0.084	0.087
Gender (1 = Male; 2 = Female)	−0.148***	−0.128**	−0.146***	−0.147***
Education	0.220***	0.211***	0.220***	0.221***
Left-right political views	0.296***	0.300***	0.295***	0.296***
Importance of Religion	0.001	−0.020	0.001	−0.001
Ethnicity: White	0.121	0.120	0.121	0.121
Ethnicity: Black	0.133	0.138	0.135	0.134
Ethnicity: Arab	−0.048	−0.052	−0.047	−0.048
Ethnicity: Asian	−0.106	−0.107	−0.105	−0.098
Main effect	−0.107**	−0.112**		
NFC		0.092*		
Main effect*NFC		0.154***		
Source: United States Government			−0.313	
Source: Imam			−0.370*	
Source: ISIS defector			−0.426**	
Content: Social				−0.369*
Content: Political				−0.520***
Content: Religious				−0.223
Adj R^2	0.10	0.11	0.10	0.11
F	11.53	10.70	9.66	10.01

*Note: *p < 0.1; **p < 0.05; and ***p < 0.01.*

resamples per analysis) to produce accurate estimations of standard errors and 95% confidence intervals (Freedman, 1981; Efron, 1987; Carpenter and Bithell, 2000).

Model 1 tests the main overall effect of counter-narratives by comparison to the control group. Taking all sources and narrative contents together, counter-narratives significantly reduce support for ISIS (β = −0.107, p = 0.043). A more detailed analysis of variance shows differences between the experimental conditions with only two counter-narratives significantly reducing support for ISIS compared to the control group: a political narrative delivered by an ISIS defector [Tukey HSD $\text{mean}_{\text{diff}}$ = −0.794, CI (0.33, 1.22)] and a social narrative delivered by an Imam [Tukey HSD $\text{mean}_{\text{diff}}$ = −0.493 CI (0.03,0.94)]. These two counter-narratives did not significantly differ from one another [Tukey HSD $\text{mean}_{\text{diff}}$ = −0.30 CI (−0.71,0.11)]. By comparison to the most effective counter-narrative (i.e., political narrative from ISIS defector), a religious counter-narrative delivered by the government was the least effective [Tukey HSD $\text{mean}_{\text{diff}}$ = 0.730, CI (−1.13, −0.31)].

The overall main effect was moderated by NFC (Model 2). The overall main effect of counter-narratives is strengthened (β = −0.112, p = 0.028) when accounting for the interaction with NFC, which produces a reactance effect (β = 0.154, p = 0.003; Model 2). There are no differences between the groups for baseline NFC (F = 0.981, p = 0.454), and the main effect of NFC is marginally positive in increasing support for ISIS (β = 0.092, p = 0.057).

Models 3 and 4 focus on the main effects per source and narrative content, respectively. Per source (Model 3), an ISIS defector was the most effective messenger (β = −0.426, p = 0.032), followed by an Imam (β = −0.37, p = 0.064), with the United States Government being a marginally beneficial source (β = −0.313, p = 0.078). Per content (Model 4), political narratives were the most effective (β = −0.520, p = 0.009), followed by social narratives (β = −0.369, p = 0.059), and no significant effect was produced by religious narratives (β = −0.223, p = 0.258).

Regardless of the experimental manipulation, there is, across all models, results indicated that men were more supportive of ISIS than women. Furthermore, political right-wing views and education were positively related to support for ISIS.

Testing Counter-Narratives for At-Risk Individuals

Using multiple regression analyses, we then tested whether support for ISIS increases as a function of high (+1 SD) and low (−1 SD) NFC when individuals are exposed to counter-narratives. For each counter-narrative, we entered NFC, the experimental condition (coded 0 = control condition, 1 = counter-narrative), and its interaction term as predictors and controlled for importance of religion. Five of the nine interactions were significant and indicated a boomerang effect; they are described below and presented in **Figures 2**, **3**. The interaction terms that were not significant were the social counter-narrative presented by the United States Government (p = 0.10; see **Figure 3A**) and the political counter-narrative presented by the United States Government (p = 0.15), the ISIS defector (p = 0.25), and the Imam (p = 0.37).

Government Religion

Need for closure (β = 0.03, p = 0.81) and counter-narrative (β = −0.02, p = 0.80) were not associated with support for ISIS, but the interaction was significant (β = 0.27, p = 0.02). As displayed in **Figure 2A**, follow-up simple slope analyses suggest that NFC was positively associated with support for ISIS in the counter-narrative (β = 0.28, p = 0.06) but not in the control condition (β = −0.26, p = 0.21). The model explained 2% of the variance.

Defector Religion

Need for closure (β = 0.07, p = 0.60) and counter-narrative (β = −0.13, p = 0.27) were not associated with support for ISIS, but the interaction was significant (β = 0.25, p = 0.04). As displayed in **Figure 2B**, follow-up simple slope analyses suggest that NFC was positively associated with support for ISIS in the counter-narrative (β = 0.31, p = 0.05), but not in the control condition (β = −0.18, p = 0.37). The model explained 2% of the variance.

Imam Religion

Need for closure (β = −0.007, p = 0.96) and counter-narrative (β = −0.13, p = 0.28) were not associated with support for ISIS, but the interaction was significant (β = 0.28, p = 0.02). As displayed in **Figure 2C**, follow-up simple slope analyses suggest that NFC was positively but marginally associated with support for ISIS in the counter-narrative (β = 0.26, p = 0.13) but not in the

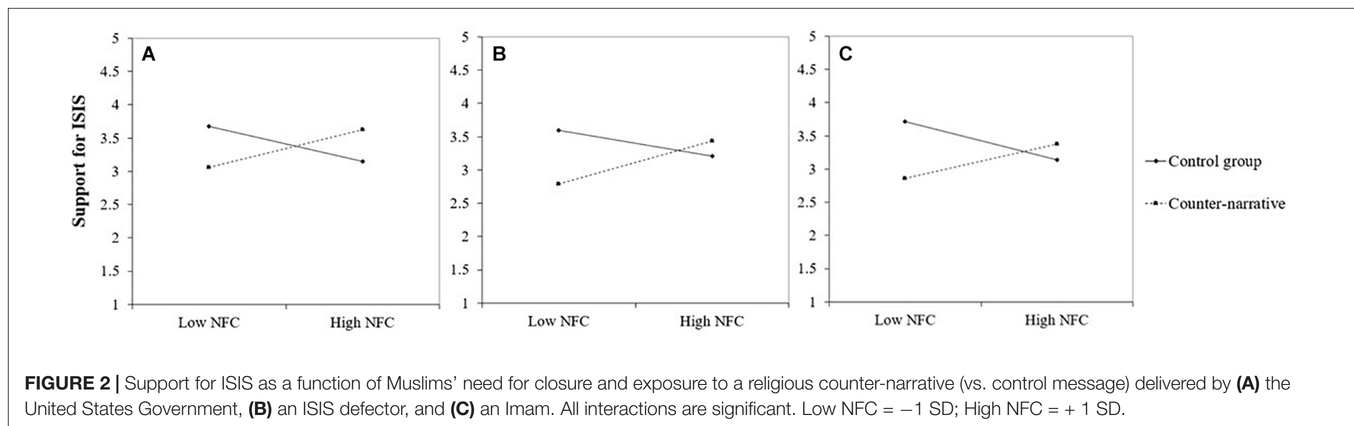

FIGURE 2 | Support for ISIS as a function of Muslims' need for closure and exposure to a religious counter-narrative (vs. control message) delivered by **(A)** the United States Government, **(B)** an ISIS defector, and **(C)** an Imam. All interactions are significant. Low NFC = −1 SD; High NFC = + 1 SD.

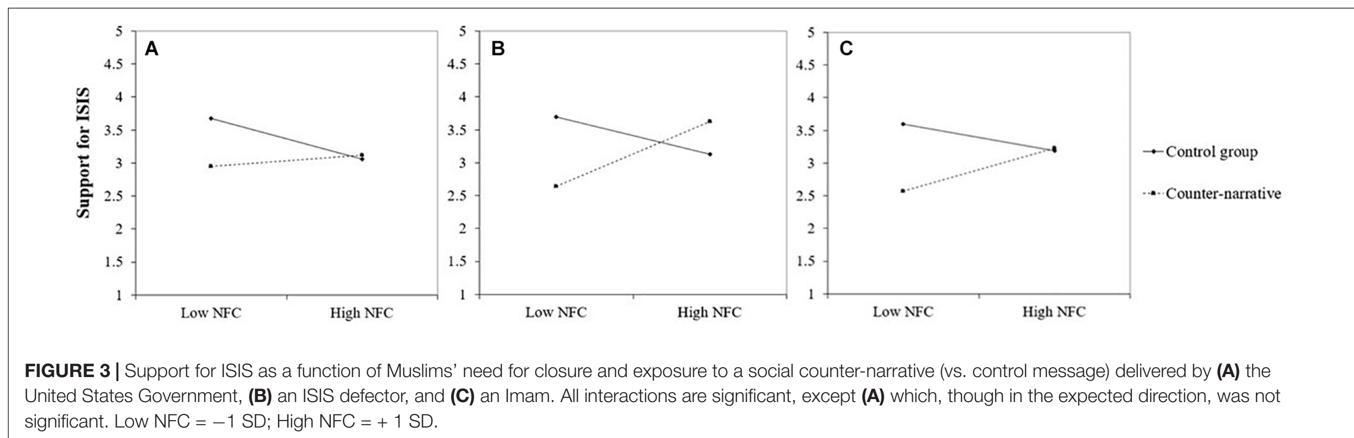

FIGURE 3 | Support for ISIS as a function of Muslims' need for closure and exposure to a social counter-narrative (vs. control message) delivered by **(A)** the United States Government, **(B)** an ISIS defector, and **(C)** an Imam. All interactions are significant, except **(A)** which, though in the expected direction, was not significant. Low NFC = −1 SD; High NFC = + 1 SD.

control condition ($\beta = -0.29$, $p = 0.17$). The model explained 2% of the variance.

Defector Social

Need for closure ($\beta = 0.13$, $p = 0.28$) and counter-narrative ($\beta = -0.13$, $p = 0.28$) were not associated with support for ISIS, but the interaction was significant ($\beta = 0.39$, $p < 0.01$). As displayed in **Figure 3B**, follow-up simple slope analyses suggest that NFC was positively associated with support for ISIS in the counter-narrative ($\beta = 0.40$, $p = 0.001$) but not in the control condition ($\beta = -0.23$, $p = 0.15$). The model explained 5% of the variance.

Imam Social

Need for closure ($\beta = 0.08$, $p = 0.55$) was not related to support for ISIS. However, people exposed to the counter-narrative ($M = 2.90$, SD = 1.54) reported less support for ISIS than people exposed to the control message ($M = 3.39$, SD = 1.60; $\beta = -0.26$, and $p = 0.03$). Most importantly, the interaction was significant ($\beta = 0.27$, $p = 0.02$). As displayed in **Figure 3C**, follow-up simple slope analyses suggest that NFC was positively associated with support for ISIS in the counter-narrative ($\beta = 0.27$, $p = 0.04$) but not in the control condition ($\beta = -0.17$, $p = 0.29$). The model explained 2% of the variance.

DISCUSSION

Integrating psychological reactance theory and NFC, the purpose of this research was to answer two fundamental questions related to counter-narratives: (1) Can they reduce the appeal of ISIS among American Muslims, and (2) are they effective with at-risk individuals? Although counter-narratives have been part of virtually all counterterrorism strategies around the globe, the present research is the only study testing whether they are effective to mitigate support for a terrorist organization. Overall, our experimental results demonstrate that there is a small but positive effect of counter-narrative on reducing support and willingness to join ISIS. Independently of the content of the counter-narrative, the most effective source was an ISIS defector, followed by an Imam (although marginally); the government as a spokesperson did not produce a significant effect. Independent of the source, the most effective content was the political counter-narrative, followed by the social counter-narrative (although marginally); the religious counter-narrative did not mitigate support for ISIS. Across all experimental conditions, the most successful message was an ISIS defector delivering a political counter-narrative followed by an Imam delivering a social counter-narrative.

Despite these encouraging results, we also found strong support for the notion that counter-narratives often yield the opposite of the intended effect. Indeed, five out of nine

counter-messages produced a boomerang effect when shown to their target audience, namely individuals at greater risk of radicalization with high NFC (Hogg et al., 2013; Webber et al., 2018). Our results demonstrate that all counter-narratives with a religious argument backfired regardless of the source of the message. This is an important finding given the widespread assumption that a moderate, mainstream understanding of Islam, especially when articulated by an authoritative religious leader, attenuates the allure of violent extremism (Briggs and Feve, 2013; Braddock and Horgan, 2016). Results did not support that proposition. Likewise, counter-narratives involving a social argument also backfired when delivered by an ISIS defector or an Imam. This shows that highlighting the devastating social effects of ISIS on the Muslim community (i.e., the ummah) does not produce its intended effects despite recommendations from many agencies to use this approach (Jacobson, 2010; National Counter-Terrorism Center, 2011).

The present research, however, is not impervious to methodological limitations. One such limitation consists of the sample that included a large proportion of Caucasian individuals who had completed a postgraduate degree. Future research should attempt to replicate our findings in a different cultural context with a more ethnically diverse sample with a broader educational background. For instance, our findings could be replicated in countries that have produced large numbers of foreign fighters, such as France, Sweden, Belgium, and Norway.

Policy Implications

Taken together, the present research supports the notion that individuals with high NFC relinquish uncertainty and are, thus, resistant to change and unwilling to compromise on their political convictions (Webber et al., 2018). Attempts to shape their perspective have the unintended effect of strengthening their ideological positions. These findings, thus, challenge the widely held assumption that the appeal of violent extremism among vulnerable individuals will decrease if they are exposed to narratives intended to break the jihadi brand. Consequently, the fundamental practical implication of this work is that practitioners, NGOs, and governments should refrain from using counter-narrative strategies to counter violent extremism.

Furthermore, the fact that the social narrative delivered by an Imam generally produced positive results but backfired when shown to high-NFC individuals, suggests that policy makers and practitioners should choose their target audience carefully and disseminate their counter-narratives through narrowcasting (as opposed to broadcasting) or perhaps even one-to-one conversation to avoid exposing segments of the population susceptible or sympathetic to narratives of violent extremism. Interestingly, however, no backfire effect was observed for political counter-narratives, and this begs future research to examine why some counter-narratives provoke more reactance than others among higher risk individuals. One possible explanation is that revealing that ISIS exploits people for its own political agenda creates a state of disillusionment with the terrorist group and is, thus, more effective to neutralize the jihadi narrative. Future research should clarify these issues and examine the effect of counter-narratives across cultures to increase the generalizability of the present findings.

Theoretical Implications

The present research, borne out of the integration of psychological reactance theory and NFC, affords new insights for each line of work. One of the main contributions of this research is to show that psychological reactance is relevant to the study of terrorism—a critical point given that one of the primary objectives of this field of inquiry is to craft effective methods to convince individuals to abandon violent means in the pursuit of their political or religious goals (see Bélanger, 2017). This contribution is significant considering that scholars have observed that using counter-narratives to prevent violent extremism "is built on very shaky theoretical and empirical foundations" (Glazzard, 2017, p. 1). And, indeed, the present research demonstrates that counter-narratives can be counterproductive by creating reactance and increasing the appeal of violent extremism among individuals who are at greater risk of radicalization. Although these results challenge the widespread assumption that counter-narratives are effective against violent extremism, they provide support for the tenets of psychological reactance theory and mirror the findings in public health research whereby health promotion messages are often shown to increase the behavior they are intended to mitigate (e.g., Ruiter et al., 2001; Grandpre et al., 2003; Schüz et al., 2013).

The second theoretical contribution of this research is to demonstrate that the NFC is related to psychological reactance—a relationship that hasn't been documented in prior work. Indeed, by showing that the NFC creates a boomerang effect, we provide evidence that individuals with entrenched beliefs are more likely to resist persuasive appeals to a higher degree. This contribution is meaningful because psychological reactance theory predicts that the magnitude of reactance increases as a function of the importance of the freedom that is threatened, which is typically manipulated by increasing the importance of a behavior or an attitude or, in Brehm and Brehm's (1981) terminology, "varying [the] magnitude of need" (1981, p. 41). Here, we show that one such need is NFC, and it reflects the degree to which people want to preserve their belief systems to avoid uncertainty. The greater such need, the greater the reactance to persuasive appeals. All in all, the present work contributes to psychological reactance theory by showing that NFC produces a counterforce motivating people to reassert their belief in an ideological system that affords them to maintain closure across time and contexts.

CONCLUSION

There is a consensus that eradicating violent extremism requires a long-term investment in structural, complex, multilayered interventions from education to social and economic development (Global Counterterrorism Forum, 2012). Concomitantly, there is also the need to act in the short term with strategies that can assist in preventing or countering violent extremism in more immediate timespans. The threat from terrorist propaganda is real, and counter-narratives are

the cornerstone short-term intervention in the fight against violent extremism. However, the urgency to deploy communication strategies to attenuate the appeal of ISIS should not be an excuse to avoid rigorous standards to produce evidence-based policies because the risk of backfiring and accelerating further radicalization is also real and threatens public safety. Until future research can further assess these effects, we suggest counter-narratives should be used by practitioners and policy makers' campaigns only after careful consideration.

DATA AVAILABILITY STATEMENT

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by New York University Abu Dhabi, Protocol titled Dehumanization and Violence (no. 043-2017). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

JB was involved in all steps of this work from conceptualization to final manuscript submission. CN was involved in data analysis and manuscript editing. BS was involved in manuscript editing. TG, MW, and IP was involved in manuscript editing.

REFERENCES

Aly, A., Macdonald, S., Jarvis, L., and Chen, T. M. (2017). Introduction to the special issue: terrorist online propaganda and radicalization. *Stud. Confl. Terror.* 40, 1–9. doi: 10.1080/1057610x.2016.1157402

Bélanger, J. J. (2017). "The Rise and fall of violent extremism: the science behind community- based interventions," in *The Motivation-Cognition Interface; From the Lab to the Real World*, eds C. Köpetz and A. Fishbach (New York, NY: Routledge), 170–195.

Bélanger, J. J., Pierro, A., Barbieri, B., De Carlo, N. A., Falco, A., and Kruglanski, A. W. (2015a). Handling conflict at work: the role of fit between subordinates' need for closure and supervisors' power tactics. *Int. J. Conflict Manag.* 26, 25–43. doi: 10.1108/IJCMA-09-2013-0083

Bélanger, J. J., Pierro, A., and Kruglanski, A. W. (2015b). Social power tactics and subordinates' compliance at work: the role of need for cognitive closure. *Rev. Eur Psychol. Appl. Eur. Rev. Appl. Psychol.* 65, 163–169. doi: 10.1016/j.erap.2015.05.001

Braddock, K., and Horgan, J. (2016). Towards a guide for constructing and disseminating counternarratives to reduce support for terrorism. *Stud. Confl. Terror.* 39, 381–404. doi: 10.1080/1057610x.2015.1116277

Brehm, J. W. (1966). *A Theory of Psychological Reactance*. New York, NY: Academic Press.

Brehm, J. W., and Cole, A. H. (1966). Effect of a favor which reduces freedom. *J. Personal. Soc. Psychol.* 3, 420–226. doi: 10.1037/h0023034

Brehm, S. S., and Brehm, J. W. (1981). *Psychological Reactance: A Theory of Freedom and Control*. London: Academic Press.

Briggs, R., and Feve, S. (2013). *Report on Review of Programs to Counter Narratives of Violent Extremism: What Works and what are the Implications for Government*. London: Institute for Strategic Dialogue.

Burgoon, M., Alvaro, E., Grandpre, J., and Voulodakis, M. (2002). "Revisiting the theory of psychological reactance: communicating threats to attitudinal freedom," in *The Persuasion Handbook: Developments in Theory and practice*, eds J. P. Dillard and M. Pfau (Thousand Oaks, CA: Sage), 213–232. doi: 10.4135/9781412976046.n12

Carpenter, J., and Bithell, J. (2000). Bootstrap confidence intervals: when, which, what? A practical guide for medical statisticians. *Stat. Med.* 19, 1141–1164. doi: 10.1002/(sici)1097-0258(20000515)19:9<1141::aid-sim479>3.0.co;2-f

Counter-narrative toolkit (n.d.). *Counter-Narrative Toolkit*. Available at: http://www.counternarratives.org/html/case-studies (accessed July 27, 2019).

Crenshaw, M. (2010). *Why the United States is Targeted by Terrorism*. San Diego, CA: International Studies Association Annual Convention.

Crenshaw, M. (2019). *Terrorism and International Cooperation*. Abingdon: Routledge.

De Grada, E., Kruglanski, A., Mannetti, L., and Pierro, A. (1999). Motivated cognition and group interaction: need for closure affects the contents and processes of collective negotiations. *J. Exp. Soc. Psychol.* 35, 346–365. doi: 10.1006/jesp.1999.1376

Dillard, J. P., and Meijnders, A. (2002). "Persuasion and the structure of affect," in *The Persuasion Handbook: Developments in Theory and Research*, eds J. P. Dillard and M. Pfau (Thousand Oaks, CA: Sage), 309–327.

Dillard, J. P., and Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Commun. Monogr.* 72, 144–168. doi: 10.1080/03637750500111815

Dugas, M., Bélanger, J. J., Moyano, M., Schumpe, B. M., Kruglanski, A. W., Gelfand, M. J., et al. (2016). The quest for significance motivates self-sacrifice. *Motivat. Sci.* 2, 15–32. doi: 10.1037/mot0000030

Efron, B. (1987). Better bootstrap confidence intervals. *J. Am. Stat. Assoc.* 82, 171–185. doi: 10.2307/2289153

Extreme Dialogue (n.d.). *Extreme Dialogue*. Available at: https://extremedialogue.org/ (accessed July 27, 2019).

Faul, F., Erdfelder, E., Buchner, A., and Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses. *Behav. Res. Methods* 41, 1149–1160. doi: 10.3758/BRM.41.4.1149

Ferguson, K. (2016). *Countering Violent Extremism Through Media and Communication Strategies: A Review of the Evidence*. Available online at: http://www.paccsresearch.org.uk/wp-content/uploads/2016/03/Countering-Violent-Extremism-Through-Media-and-Communication-Strategies-.pdf (accessed February 25, 2020).

Freedman, D. A. (1981). Bootstrapping regression models. *Ann. Stat.* 9, 1218–1228. doi: 10.1214/aos/1176345638

Glazzard, A. (2017). *Losing the Plot: Narrative, Counter-Narrative and Violent Extremism*. The Hague: International Centre for Counter-Terrorism.

Global Counterterrorism Forum (2012). *Rome Memorandum on Good Practices for Rehabilitation and Reintegration of Violent Extremist Offenders*. Available at: https://www.thegctf.org/documents/10162/159878/Rome+Memorandum-English.pdf.

Golec de Zavala, A., and Van Bergh, A. (2007). Need for cognitive closure and conservative political beliefs: differential mediation by personal worldviews. *Polit. Psychol.* 28, 587–608. doi: 10.1111/j.1467-9221.2007.00591.x

Grandpre, J., Alvaro, E. M., Burgoon, M., Miller, C. H., and Hall, J. R. (2003). Adolescent reactance and anti-smoking campaigns: a theoretical approach. *Health Commun.* 15, 349–366. doi: 10.1207/S15327027HC1503_6

Hedayah (n.d.). *Hedayah*. Available at: https://www.hedayahcenter.org/resources/interactive_cve_apps/counter-narrative-library/ (accessed July 27, 2019).

Hogg, M. A., Kruglanski, A., and van den Bos, K. (2013). Uncertainty and the roots of extremism. *J. Soc. Issues* 69, 407–418. doi: 10.1111/josi.12021

Hogg, M. A., Sherman, D. K., Dierselhuis, J., Maitner, A. T., and Moffitt, G. (2007). Uncertainty, entitativity, and group identification. *J. Exp. Soc. Psychol.* 43, 135–142. doi: 10.1016/j.jesp.2005.12.008

Hovland, C. I., Lumsdaine, A. A., and Sheffield, F. D. (1949). *Experiments on Mass Communication*. Princeton, NJ: Princeton University Press.

Institute for Economics and Peace (2018). *Global Terrorism Index 2018: Measuring the Impact of Terrorism*. Available at: http://visionofhumanity.org/reportsU

Jacobson, M. (2010). *Countering Violent Extremist Narratives*. Available at: https://www.washingtoninstitute.org/uploads/Documents/opeds/4b7aaf56ca52e.pdf

Kruglanski, A. W. (2004). *The Psychology of Closed Mindedness*. New York, NY: Psychology Press.

Kruglanski, A. W., Bélanger, J. J., and Gunaratna, R. (2019). *The Three Pillars of Radicalization: Needs, Narratives, and Networks*. Oxford: Oxford University Press.

Kruglanski, A. W., Pierro, A., Mannetti, L., and De Grada, E. (2006). Groups as epistemic providers: need for closure and the unfolding of group centrism. *Psychol. Rev.* 113, 84–100. doi: 10.1037/0033-295X.113.1.84

Kruglanski, A. W., and Webster, D. M. (1991). Group members' reactions to opinion deviates and conformists at varying degrees of proximity to decision deadline and of environmental noise. *J. Personal. Soc. Psychol.* 61, 212–225. doi: 10.1037/0022-3514.61.2.212

Kruglanski, A. W., and Webster, D. M. (1996). Motivated closing of the mind:" Seizing" and" freezing." *Psychol. Rev.* 103, 263–283. doi: 10.1037/0033-295X.103.2.263

Kruglanski, A. W., Webster, D. M., and Klem, A. (1993). Motivated resistance and openness to persuasion in the presence or absence of prior information. *J. Personal. Soc. Psychol.* 65, 861–876. doi: 10.1037/0022-3514.65.5.861

Livi, S., De Grada, E., Pierro, A., Mannetti, L., Kruglanski, A. W., and Kenny, D. A. (2007). Bisogno di chiusura cognitiva e trasmissione di norme sperimentalmente indotte in piccoli gruppi. *Giorn. Ital. Psicol.* 3, 581–601.

Ma, Y., Dixon, G., and Hmielowski, J. D. (2019). Psychological reactance from reading basic facts on climate change: the role of prior views and political identification. *Environ. Commun.* 13, 71–86. doi: 10.1080/17524032.2018.1548369

Matland, R. E., and Murray, G. R. (2013). An experimental test for "backlash" against socialpressure techniques used to mobilize voters. *Am. Polit. Res.* 41, 359–386. doi: 10.1177/1532673X12463423

Meirick, P. C., and Nisbett, G. S. (2011). I approve this message: effects of sponsorship, ad tone, and reactance in 2008 presidential advertising. *Mass Commun. Soc.* 14, 666–689. doi: 15205436.2010.530381

Mohammed, R. (2014). *ISIS Beheads Another American as 60 New Terror Groups Join*. Washington, DC: The Fiscal Times.

Nabi, R. L. (2002). "Discrete emotions and persuasion," in *The Persuasion HANDBOOK: Developments in Theory and Research*, eds J. P. Dillard and M. Pfau (Thousand Oaks, CA: Sage), 289–308. doi: 10.4135/9781412976046.n15

National Counter-Terrorism Center (2011). *Report on Terrorism*. Available online at: https://www.fas.org/irp/threat/nctc2011.pdf (accessed February 25, 2020).

Nisbet, E. C., Cooper, K. E., and Garrett, R. K. (2015). The partisan brain: how dissonant science messages lead conservatives and liberals to (dis) trust science. *Ann. Am. Acad. Polit. Soc. Sci.* 658, 36–66. doi: 10.1177/0002716214555474

Ozeren, S., Hekim, H., Elmas, M. S., and Canbegi, H. I. (2018). An analysis of ISIS propaganda and recruitment activities targeting the turkish-speaking population. *Int. Ann. Criminol.* 56, 105–121. doi: 10.1017/cri.2018.14

Pellerin, C. (2016). *Communicating Terror: an Analysis of ISIS Communication Strategy. Sciences Po Kuwait Program*. 1–17. Available online at: https://www.sciencespo.fr/kuwait-program/wp-content/uploads/2018/05/KSP_Paper_Award_Spring_2016_PELLERIN_Clara.pdf (accessed February 25, 2020).

Pomeranz, E. M., Chaiken, S., and Tordesillas, R. S. (1995). Attitude strength and resistance processes. *J. Personal. Soc. Psychol.* 69, 408–419. doi: 10.1037/0022-3514.69.3.408

Quick, B. L., and Stephenson, M. T. (2007). The reactance restoration scale (RSS): a measure of direct and indirect restoration. *Commun. Res. Rep.* 24, 131–138. doi: 10.1080/08824090701304840

Roets, A., and Van Hiel, A. (2011). Item selection and validation of a brief, 15-item version of the need for closure scale. *Personal. Individ. Differ.* 50, 90–94. doi: 10.1016/j.paid.2010.09.004

Rosand, E., and Winterbotham, E. (2019). *Do Counter-Narratives Actually Reduce Violent Extremism*. Available online at: https://www.brookings.edu/blog/order-from-chaos/2019/03/20/do-counter-narratives-actually-reduce-violent-extremism/ (accessed February 25, 2020).

Rosenberg, B. D., and Siegel, J. T. (2018). A 50-year review of psychological reactance theory: do not read this article. *Motivat. Sci.* 4, 281–300. doi: 10.1037/mot0000091

Ruiter, R. A. C., Abraham, C., and Kok, G. (2001). Scary warnings and rational precautions: a review of the psychology of fear appeals. *Psychol. Health* 16, 613–630. doi: 10.1080/08870440108405863

Schumpe, B. M., Bélanger, J. J., Giacomantonio, M., Nisa, C. F., and Brizi, A. (2018a). Weapons of peace: providing alternative means for social change reduces political violence. *J. Appl. Soc. Psychol.* 48, 549–558. doi: 10.1111/jasp.12546

Schumpe, B. M., Bélanger, J. J., Moyano, M., and Nisa, C. F. (2018b). The role of sensation seeking in political violence: an extension of the significance quest theory. *J. Personal. Soc. Psychol.* 118, 743–761. doi: 10.1037/pspp0000223

Schüz, N., Schüz, B., and Eid, M. (2013). When risk communication backfires: randomized controlled trial on self-affirmation and reactance to personalized risk feedback in high-risk individuals. *Health Psychol.* 32, 561–570. doi: 10.1037/a0029887

Seltzer, L. F. (1983). Influencing the "shape" of resistance: an experimental exploration of paradoxical directives and psychological reactance. *Basic Appl. Soc. Psychol.* 4, 47–71. doi: 10.1207/s15324834basp0401_5

United Nations Security Council (2019). *Twenty-Fourth Report of the Analytical Support and Sanctions Monitoring Team*. Available online at: https://undocs.org/en/S/2019/570 (accessed February 25, 2020).

Van Den Bos, K. (2018). *Why People Radicalize: How Unfairness Judgments are Used to Fuel Radical Beliefs, Extremist Behaviors, and Terrorism*. Oxford: Oxford University Press.

Van Den Bos, K., Euwema, M. C., Poortvliet, P. M., and Maas, M. (2007). Uncertainty management and social issues: uncertainty as an important determinant of reactions to socially deviating people. *J. Appl. Soc. Psychol.* 37, 1726–1756. doi: 10.1111/j.1559-1816.2007.00235.x

Von Behr, I., Reding, A., Edwards, C., and Gribbon, L. (2013). *Radicalisation in the Digital era. The use of the Internet in 15 cases of Terrorism and Extremism*. Cambridge:, MA: RAND Europe.

Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M., Bélanger, J. J., et al. (2018). The road to extremism: field and experimental evidence that significance loss-induced need for closure fosters radicalization. *J Personal. Soc. Psychol.* 114, 270–285. doi: 10.1037/pspi0000111

Weimann, G. (2014). *New Terrorism and New Media*. Washington, DC: Wilson Center.

White, G. L., and Zimbardo, P. G. (1980). The effects of threat of surveillance and actual surveillance on expressed opinion toward marijuana. *J. Soc. Psychol.* 111, 49–61. doi: 10.1080/00224545.1980.9924272

Wicklund, R. A. (1974). *Freedom and Reactance*. Potomac, MD: Lawrence Erlbaum.

Williams, H. J., Chandler, N., and Robinson, E. (2018). *Trends in the Draw of Americans to Foreign Terrorist Organizations from 9/11 to Today*. Santa Monica, CA: RAND Corporation.

Worchel, S., and Brehm, J. W. (1970). Effect of threats to attitudinal freedom as a function of agreement with the communicator. *J. Pers. Soc. Psychol.* 14, 18–22. doi: 10.1037/h0028620

Zhang, X. (2019). Effects of freedom restoration, language variety, and issue type on psychological reactance. *Health Commun.* 1–12. doi: 10.1080/10410236.2019.1631565

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Bélanger, Nisa, Schumpe, Gurmu, Williams and Putra. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

APPENDIX

Each measure was answered on the following seven-point scale:

1. Not agree at all
2. Very slightly agree
3. Slightly agree
4. Moderately agree
5. Mostly agree
6. Strongly agree
7. Very strongly agree

Need for Closure

Read each of the following statements and decide how much you agree with each according to your beliefs and experiences.

1. I enjoy having a clear and structured mode of life
2. I dislike unpredictable situations.

Importance of Religion

While thinking of Islam, please indicate your level of agreement with the item below.

1. Practicing my religious or spiritual beliefs is important for me.

Support for ISIS

The following questions pertain to the Islamic state (also known as ISIS). Read each of the following statements and decide how much you agree with each according to your beliefs and experiences.

1. I like the Islamic State (i.e., ISIS) very much.
2. I have a favorable opinion toward the Islamic State (i.e., ISIS).
3. I like what the Islamic State (i.e., ISIS) is doing.
4. I would consider joining this group.
5. I think what the Islamic State (i.e., ISIS) is doing is morally reprehensible.

frontiers in Psychology

ORIGINAL RESEARCH
published: 17 June 2020
doi: 10.3389/fpsyg.2020.01338

Staying Engaged in Terrorism: Narrative Accounts of Sustaining Participation in Violent Extremism

Neil Ferguson[1]* *and James W. McAuley*[2]

[1] Department of Psychology, Liverpool Hope University, Liverpool, United Kingdom, [2] Department of Behavioural and Social Sciences, University of Huddersfield, Huddersfield, United Kingdom

Research exploring radicalization pathways and how and why people become involved in terrorism has expanded since the 9/11 attacks. Likewise, over the last decade research exploring de-radicalization and desistence from terrorism has grown and expanded in an attempt to promote exit from extremist or terror groups. However, research studies on how individuals sustain engagement in terrorism and their involvement with extremist organizations, often in the face of great adversity, are absent from the body of research. To address this scarcity of research this study analyzed accounts of engagement in violent extremism produced by Northern Irish loyalist and republican paramilitaries in order to explore how their paramilitary lifestyle, perpetration of acts of political violence and the pressure from countering threats posed by rival groups, and the State security forces impacted on them. The analysis utilized a hybrid of thematic analysis and interpretative phenomenological analysis (IPA). The themes raised through the analysis reflected the psychological, social and economic hardship associated with this lifestyle. The narrative accounts also illustrated psychological changes associated to engagement in violence and from insulation within tightly knit extremist groups. As most of the participants faced incarceration during their paramilitary careers, themes also reflected on the impact imprisonment had on them. The themes explored factors that sustained their involvement, including the role of identity development and identity fusion in sustaining their extremism, the impact of insulated group membership, feelings of efficacy, dehumanization processes, community support, and beliefs in the utility of violence.

Keywords: Northern Ireland, violent extremism, terrorism, radicalization, political violence

OPEN ACCESS

Edited by:
Angel Gomez,
National University of Distance Education (UNED), Spain

Reviewed by:
Aaron L. Wichman,
Western Kentucky University, United States
Jeff Gruenewald,
University of Arkansas, United States

****Correspondence:***
Neil Ferguson
fergusn@hope.ac.uk

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *10 June 2019*
Accepted: *20 May 2020*
Published: *17 June 2020*

Citation:
Ferguson N and McAuley JW (2020) Staying Engaged in Terrorism: Narrative Accounts of Sustaining Participation in Violent Extremism. Front. Psychol. 11:1338. doi: 10.3389/fpsyg.2020.01338

INTRODUCTION

While not underplaying the methodological and conceptual problems associated with research exploring terrorism and violent extremism (Silke, 2001; Horgan, 2003; Victoroff, 2005; Schuurman, 2018); research exploring both the routes into violent extremism and processes of radicalization has advanced considerably since the 9/11 attacks. Likewise, the last 10 years have witnessed a growth in research exploring how to bring about an ending of terrorism (Horgan, 2005), through a deeper understanding deradicalization and disengagement from violent extremism at both the individual and organizational level (Ferguson et al., 2015; Altier et al., 2017). However, research focusing on

how violent extremists sustain their engagement in violent extremism and deal with the stress and hardships such a lifestyle inevitably entails is missing from these research efforts.

This study aims to begin to fill the gap in this literature by exploring the accounts provided by Northern Irish paramilitaries of their lives after they joined armed groups and the impact this new lifestyle had on themselves and their families. The paramilitaries were from a range of Irish republican and Ulster loyalist groupings, including, the Ulster Defence Association (UDA), Ulster Volunteer Force (UVF), the Red Hand Commando (RHC), Official Irish Republican Army (OIRA), Provisional Irish Republican Army (PIRA), and the Irish National Liberation Army (INLA). These narrative accounts have been analyzed through a combination of Interpretative Phenomenological Analysis (IPA; Smith, 1995, 1996) and Thematic Analysis (Braun and Clarke, 2006) to understand how the participants interpreted and made sense of their time as active paramilitaries, the factors that sustained their involvement in violent extremism and the impact it had.

Research within terrorism studies is somewhat limited, and has been slow to explore this aspect of the "arc of terrorism," or the "terrorist lifecycle" (Horgan and Taylor, 2011; Horgan, 2017). Nevertheless, some of the most popular radicalization models touch on factors that could be involved to sustaining extremism beyond early encounters with radical groups and use of violence for seemingly political or ideological reasons. Due to the proliferation of radicalization models, (for example, the most cited models include: Borum, 2003, 2004; Moghaddam, 2005, 2007; Taarnby, 2005; Wiktorowicz, 2005; Taylor and Horgan, 2006; Gill, 2007; Precht, 2007; Silber and Bhatt, 2007; McCauley and Moskalenko, 2008; Sageman, 2008; Dalgaard-Nielsen, 2010; Sinai, 2012; Kruglanski et al., 2014) and the considerable overlap across models (Jensen et al., 2016), this article will restrict its focus to the three most widely cited models (Moghaddam, 2005; Taylor and Horgan, 2006; McCauley and Moskalenko, 2008).

McCauley and Moskalenko (2008) noted how Irish republicans' sustained long-term involvement through interdependence and devotion to the wider group. While they also argue that immersion in a threatened compliant like-minded group, should push members toward ever-riskier courses of action. Moghaddam (2005) also supports much of these ideas, arguing that terror groups use isolation, devotion and ingroup pressures to create a moral disengagement from the mainstream in order to foster a moral engagement with the ideology and norms of the extremist group in the face of external threat. Taylor and Horgan (2006) further describe how involvement with the group would involve practical training and political or ideological education or exposure, in order for the militant to be able to understand their violence or actions on behalf of the movement within organizational norms. Thereby, strengthening involvement while also providing meaning and direction to the militant's actions, leading to their deepening institutionalization within the group and a merging of their personal and group identity.

Research exploring the impact of engagement in armed violence is also available from other sources. Firstly, from studies of soldiers who have been deployed to fight in conflicts across the globe, generally as part of the "war on terror," which like research in terrorism studies has flourished since 9/11 (Engen, 2008; Cigrang et al., 2014; Russell et al., 2014; Cabera et al., 2016). Secondly, through research on child combatants (Hermenau et al., 2013), and finally, and most pertinently to this study, research on the impact of imprisonment for former combatants in Northern Ireland (Jameison et al., 2010; Shirlow et al., 2010; Ferguson, 2014).

Research exploring the experiences of both regular soldiers and irregular militias, including those incorporating child soldiers in their ranks illustrate some of the problems faced by people deployed in combat who engage in organized killing. One key problem is that, as Grossman (1996) and Marshall (2000) observed, the average "normal" soldier has an inner resistance to killing fellow humans, even enemy humans and to overcome this resistance, soldiers have to be desensitized, and conditioned to kill through their military training. However, even after being trained to kill, Grossman (1996) argues that for soldiers who engage in combat, the number of psychiatric casualties will outnumber the physical.

Indeed, he argues that a large proportion of combat troops will have significant negative psychiatric outcomes, such as physical and mental exhaustion, dissociation from reality, anxiety, depression, somatic symptoms, OCD, etc.

While Grossman (1996) and Marshall (2000) are not without their critics (Ghiglieri, 1999; Chambers, 2003; Engen, 2008) the evidence that engagement in combat can have negative physical and psychological impact is overwhelming (Smith et al., 2008). Studies have consistently demonstrated problematic mental health, alcohol and substance use, relationship health, readjustment problems, increased anger and aggression among soldiers and child soldiers post-combat (Keyes et al., 2012; Hermenau et al., 2013; Cigrang et al., 2014; Russell et al., 2014; Cabera et al., 2016). Furthermore, McNair (2002) has demonstrated higher rates of PTSD amongst those who did the actual killing, especially amongst those who killed civilians, in comparison to others who just observed killing. Based on these studies the expectation is that the noted psychological problems would occur amongst violent extremists and Northern Irish paramilitaries who engaged in acts of ideological or political violence in addition to members of regular armies. Indeed, as these individuals operated outside the law, it would have been difficult, if not impossible to receive therapeutic support for psychological problems caused by their own violence. The implications of this is that there may be a disproportionate number of former paramilitaries with undiagnosed problematic mental health (Ferguson et al., 2010).

Research with former politically motivated prisoners and former combatant groups from Northern Ireland consistently demonstrate the negative impact engagement in political violence has for the perpetrator (Shirlow and McEvoy, 2008; Jameison et al., 2010; Shirlow et al., 2010; Shirlow, 2014). For example, while one percent of the Northern Irish population were fatalities during the Troubles, 45% of former paramilitary prisoners had a relative killed (Shirlow and McEvoy, 2008). Former paramilitary prisoners have high rates of suicide (Shirlow, 2014), reflected in 38% of former loyalist prisoners reporting that there were

times when to did not want to "go on living" post release (Jameison et al., 2010). While rates of PTSD in Northern Ireland are higher than in other comparative countries (Bunting et al., 2012) at nine percent, indicators of PTSD, such as experiencing intrusive memories and dreams were reported by 51% of former paramilitary prisoners (Jameison et al., 2010). Similarly, rates of mental illness (41%), use of anxiety and depression medication (41%), hazardous drinking (68%), and alcohol dependency (53%) were up to four times the regional or national averages amongst former paramilitary prisoners (Jameison et al., 2010).

Research exploring engagement in social movements or in collective action have demonstrated the importance of identity in predicting (Van Zomeren et al., 2008), fuelling (van Stekelenburg et al., 2010), and sustaining engagement with social movements (Klandermans, 1984). Likewise, research exploring disengagement and deradicalization processes demonstrate the importance of identity in stimulating disengagement from violence (Ferguson et al., 2015, 2018; Ferguson, 2016; Raets, 2017). Research has also demonstrated that once individuals become active members their identities can be strengthened (Vestergren et al., 2016) and they can become fused with the group identity (Swann et al., 2012), cut themselves off from external groups and become increasingly bound to the group aims and norms (della Porta, 1995). Given these patterns, we would expect that prolonged engagement in paramilitary activity would affect identity and strengthen bonds to the armed group and the wider community that support these groups.

A review of these areas of research suggests that engaging in a prolonged period of violent extremism will have negative economic, physical, psychological and social impacts on former Northern Irish combatants, and that this engagement will further impact on their identity, attitude and behavior (McAuley et al., 2010). This current study will explore the narrative accounts of Northern Irish militants who engaged in politically motivated violence during the conflict in Northern Ireland in order to explore the factors that sustained this violent extremism, the impact that living this lifestyle had on the combatants and how it manipulated their identity, cognition and behavior. In doing this, the study will provide insights on an aspect of the violent extremist lifecycle which has been absent from analysis.

MATERIALS AND METHODS

Participants and Data Collection

All the participants (n = 110) were members or former members of Northern Irish paramilitary groups. The sample was comprised of predominantly male (n = 102) ex-prisoners (n = 105) and included both loyalist (RHC, n = 3; UDA, n = 20; UVF, n = 48) and republican (INLA, n = 9; IRA, n = 30) paramilitaries[1]. All the participants had been interviewed by research teams involving the first or second author as part of a variety of research projects conducted since the 1990s. When interviewed the participants were a combination of active and former paramilitary combatants, and the sample contained a blend of both leadership and "rank and file" members. However, as the original interview transcripts had been previously anonymized it was not possible to provide exact data on age, the composition of rank, length of service or membership status of the participants. The original research projects had received ethical approval from an author's host university and this study received ethical approval from the first author's university and the [Centre for Research and Evidence on Security Threats (CREST)] at the (Lancaster University).

All of the interviews had been semi-structured, conducted face-to-face and lasted from 30 min to over 3 h, the interviews had focused on issues related to the participants' experiences as combatants during the Troubles and their thoughts around various issues related to the conflict, their paramilitary activity, imprisonment and the peace process. All interviews were transcribed and anonymized to maintain participant anonymity and confidentiality. In addition, to enhance the participants' anonymity, the Ethics committee based at (CREST) requested that the quotes presented should not be in the interviewees own words, thus all quotes presented in the article have been paraphrased from the original transcripts. In order to secure coherence and the integrity of the paraphrased quotes both authors reviewed the original and paraphrased versions to ensure the meaning expressed in both versions was consistent.

Data Analysis

The data was analyzed inductively (Patton, 1990) without trying to fit with previous conceptualizations or research in this area. The analysis followed processes and principles common to thematic analysis (Braun and Clarke, 2006) and guided by principles shared with the Interpretative Phenomenological Approach (IPA; Smith, 1995; Smith et al., 1999) as the research aimed to make sense of the participants' lived experiences.

The first author began the analysis by reading and re-reading the anonymized transcripts, noting ideas and while focusing principally on parts of the transcripts were the participant explored their engagement in politically motivated violence and with paramilitary groups. Following this initial stage, the first author then began to re-analyze the transcripts line-by-line and note aspects of the interview with psychological significance in the left-hand margin. These raised codes were couched in the participants' narrative and driven by the data they had individually produced. In the third and final stage of analysis, the first author returned to the transcripts and began to collate and refine the different codes into themes, super-ordinate themes and sub-themes. During this process, the first author constantly returned to the original transcripts to confirm that the themes reflected the same meaning across the participants' accounts.

Once the first author completed this three stage analysis, the second author independently examined the transcripts, summary documents, codes, and themes in line with Yin (1989) to provide an audit in order to enhance the qualitative validity of the analysis and themes (see Yardley, 2000). The second author's audit assessed the coherence of the themes, their rigor that they represented the data, were sensitive to the context and grounded in the participants' accounts. While no software can actually

[1]Other data from this population was also analyzed in Ferguson and McAuley (2019).

analyze qualitative data (Ose, 2016), due to the large dataset MS Word and MS Excel were utilized (Meyer and Avery, 2009) for data management and to support the analysis process.

RESULTS

The six themes raised from the data related to life after joining a paramilitary group and how this lifestyle affected the participants. The first theme "moral ambiguity, dehumanization and isolation" explores the psychological changes the interviewees reported that they underwent due to the pressures of being a militant in a closed extremist group. The second theme "all-encompassing identity" demonstrates how being a militant becomes a central feature of the paramilitary's sense of who they are, playing an important role in both sustaining engagement in morally ambiguous actions and serving as a protective factor. The third theme examines increases in a "sense of purpose and efficacy" that resulted in taking a stand. The fourth theme explores how the participants' believed that "violence effectively brings political change" and brought benefits to their wider communities. The fifth theme acknowledges the importance of "community support" in sustaining the participant and their organization in armed actions. The final theme "imprisonment, radicalization and strategic development" explores how prison could be transformative, allowing the imagining of different futures and paths.

Theme 1: Moral Ambiguity, Dehumanization and Isolation

The majority of the Northern Irish working class live in communities segregated along ethno-political lines, which has a significant impact on worldviews and reasoning (Ferguson and McKeown, 2016). Once people commit to these armed groups they begin to socialize within even narrower groups of loyalist or republican extremists inside these divided and insulated communities. Then as they become operatives in the conflict, and are forced to live with the pressures and stressors associated with this lifestyle, they socialize within even smaller circles of likeminded paramilitarists who they felt they could trust. As they are also under constant surveillance and threat, they become more paranoid, obsessive and insulated from people outside the extremist group.

> When you give your life to something. And it's not just jail, people go on about jail as a big loss, but the second you walk into the room and say "I stand up as a member of the IRA until the second the struggle is over," you have no life. You literally become obsessive. You trust nobody. Every detail has to be examined. You have to cross every "t" and dot every "i" and check every single thing (T52, PIRA, Belfast).

These insulated groups amplify ingroup identities (see "Theme two"), beliefs and biases, while hardening stereotypes and negative enemy images of the rival armed groups and the wider community from which they are drawn. This fuels moral disengagement (Bandura, 2004) and the development of dehumanizing perceptions of the other, which are necessary to allow members of the armed groups to justify and engage in politically motivated murder (Grossman, 1996).

> Anyone on the nationalist side whose lips moved was a legitimate target. I don't believe that now, but back then I believed that. I watched Bobby Sands[2] funeral and I saw a hundred thousand people in the graveyard in west Belfast. Up till then I was only prepared to shoot dead republicans. But after that day I viewed all nationalists and all Roman Catholics in west Belfast as legitimate targets, because I felt they were all supporting the armed struggle (T94, UVF, Belfast).

> You just didn't think about it. When you're firing at soldiers or firing a grenade, or whatever you were doing, you didn't see the target as a person. You seen it as a symbol of the state. You never thought of it, of whether they had kids or whether they were 18 years of age – the same age as you (T53, PIRA).

This isolation, coupled with a stressful and threatening environment and reliance on negative stereotypes of the opposition, creates risky shift (Stoner, 1961) or Groupthink like pressures (Janis, 1982) which contribute to risky decision making and morally ambiguous decisions based on a poor analysis of the situation, as illustrated by this UVF member:

> The idea was by taking out one of their top brigadiers, that it would end the feud. And which, unfortunately, it never does (T22, UVF, Belfast).

In this stressful and insulated environment, the paramilitaries focus on short-term strategy, engaging the opposition, reacting to their attacks and fighting the war, there is little room for long-term strategic or political analysis. It is not until they are removed from the conflict, usually through incarceration, that they begin to develop a more coherent, and sophisticated strategy beyond the "tit for tat" sectarian violence that fuelled their initial engagement (see Ferguson and McAuley, 2019). This evolution in political awareness through incarceration and/or longer-term engagement with the organization is further discussed in theme six.

Theme 2: All-Encompassing Identity

It is clear from quotes in the earlier theme that the participants' activism pervades all aspects of life and they have sustained their involvement in the military, social-welfare or political activities of these proscribed armed organizations and their political affiliates in some cases over decades, and in face of some significant challenges and existential threats to themselves and their families. Indeed, experiencing these challenges, coupled with ingroup insulation increasing cohesion, was key to bonding their group and personal identities and fuelling their agency (Swann et al., 2012; Doosje et al., 2016). From the interviews, it was clear that having a strong and all-encompassing activist identity was key to sustaining these challenging years of activism through the conflict and into the peace.

> I'm a loyalist. That's why I'm in politics and the UPRG (Ulster Political Research Group). I believe, I won the war militarily, they

[2] Bobby Sands was a PIRA volunteer who led, and died on hunger strike while serving a sentence for possession of firearms at HMP Maze in 1981. We was also elected as an MP while on hunger strike, dying less than a month after his election.

didn't deter me. And when I came out of prison, I thought what am I going to do – sit with my feet up and say to my grandkids or my children "oh I done this during the war, I done that during the war" or go and face them [Sinn Fein]. And we have taken that challenge up and the more we do face them and challenge them the more confident I get (T82, UDA, Mid-Ulster).

In line with previous research (Swann et al., 2012; Hogg and Adelman, 2013; Ferguson and Binks, 2015; McDonald, 2018), once the individual becomes a member of the group they are instilled with the group norms and feel a reduction of uncertainty. These changes are part of the process that is necessary to overcome the cognitive and emotional barriers to killing (Grossman, 1996; Hoover Green, 2016). This risky groupthink style thinking gives their violent or criminal actions and the morally ambiguous activities of their organization, a sense of moral clarity and provides the required zeal to sustain their involvement.

People kept their spirits high, people knew where they belonged, and it was easy to do what you did. It was clear what you were doing (T37, PIRA, Female).

This sense of comradeship and *esprit de corps* is further developed when the paramilitary becomes incarcerated. The time spent in segregated prison wings with likeminded paramilitarists developed strong bonds of friendship bonds that would further sustain their engagement on their release.

Because of prison I have gained a lot. Obviously, I've lost a lot, but I've gained a lot as well. Like the friendship, there are strong bonds that are created through the conflict, for me that's a personal gain. Again, a lot of losses, a lot of friends were killed, a lot went to prison, and they spent a long time in prison (T31, INLA, West Tyrone).

These processes of increasing isolation and corresponding attachment and identification to comrades and the wider organization share similarities with the predictions from identity fusion theory (Swann et al., 2012) and the devoted actor model (Atran et al., 2014). Swann et al. (2012) predict identity fusion to arise when group members experience visceral feelings of oneness with their group until the point where the personal and social selves fuse into one singular identity. These fused group members form kin-like attachments with fellow fighters and become devoted to the collective. This also encourages antisocial pro-group behaviors, such as fighting and dying for their country (Swann et al., 2009; Gómez et al., 2011; Whitehouse et al., 2014). These processes are clearly at work in the narratives produced by the interviewees, for example:

It stripped me completely from being a father, husband, brother, son, it stripped me of that identity, of what I was to other people, I became this person who was completely focused on the other side. Now, in hindsight, my biggest regret is quite simply that I put something before a wife and daughter (T26, UVF, North Antrim).

These processes of identification provide a lens from which the protagonist understands the conflict and makes sense of their personal actions in the conflict. Group membership can be important in mediating the stress and trauma that is associated with involvement in political violence (Muldoon et al., 2016). Therefore, this amplification or fusion of identity should additionally offer protection from the stress and trauma they encounter or create for themselves through their violence, sustaining the militants in their extremist careers.

Theme 3: Sense of Purpose and Efficacy

This collective identity fed into a sense of purpose, generating feelings of empowerment and efficacy in the face of an evil dehumanized foe.

Obviously when you do things that you normally won't consider you'd be capable of doing and facing the possibility of death and jail for doing them. Then that's obviously a negative, but you felt that your country was under siege and that you were doing something about it. In the middle of that came the Ulster Workers Strike, and that was the closest thing that I could find to what people might term the "Blitz spirit," were everyone stuck together. We all felt proud that we were serving our country, because the security forces at that time didn't seem to be making any progress, in terms of taking the fight to the IRA (T25, UVF, Belfast).

Research exploring domestic (Decou et al., 2015) and occupational violence (Yao et al., 2014) have demonstrated that increased self-efficacy is related with better coping with experiences of violence. This suggests that while higher efficacy will clearly be important in sustaining extremism, it may also have a protective function that helps sustain engagement by mediating the impact of trauma, as suggested by this IRA volunteer:

When it came to my generation we said, "That's it. We're standing up and we're not taking any more." But, it was for the sake that all our children, yet unborn would have a better life. So, I was prepared to sacrifice myself quite truthfully. And I'm lucky. I'm one of the lucky ones that survived it. I was shot twice, wounded twice and friends of mine were shot dead. They're in the cemetery. And, God love them (T15, OIRA, Derry).

Theme 4: Violence Effectively Brings Political Change

While many of the interviewees acknowledged that some of their counterparts had joined paramilitary groups for their own personal status or financial benefit; none of the interviewees gave this as a reason for their own involvement. Indeed, many discussed how their membership and imprisonment had led to significant financial hardship for them and their families. Instead, the former combatants saw the benefits of their activism in terms of community, rather than personal gains. They believed their activism and the associated risks they had taken had kept their community safe, helped initiate the peace process or brought about a positive change in the social conditions of the wider community they originated from.

I think overall the position of nationalism, without a shadow of a doubt, has been enhanced greatly through the armed conflict. Prior to 1969 we had discrimination and even though sectarianism is still rampant and rife, it's more subtle than it was back then. The armed struggle has put a great confidence in the nationalist people and a great confidence in republicans. They haven't achieved their objectives of a united Ireland, but they've

achieved a lot of stuff. They might not have achieved total equality but there's no doubt it has improved (T31, INLA, West Tyrone).

A key aspect of this belief was that the actions of the armed group they belonged to, and thus their own violence, had improved or at least maintained the position of their community in face of threats from the other community or the British Government. Many participants believed that the violence they had employed was effective in bringing change, or forcing the opponent to seek a political compromise. Republicans drew widely on the belief that violence had brought about changes in Irish society, which otherwise would not have been achieved, for loyalists it was their violence that had brought the republican movement to its knees, eventually to settle for a ceasefire. Witness the following:

I'll believe to the day I die that our strategy from the mid 1980's brought the republican movement to their knees. We were out-killing them and out-gunning them. We were hitting the right people. Regardless of what they say, we knew who we were hitting. And even when I was in the jail. I knew we were winning because I could see it on their faces. You just seen it when they came in. You knew they were a defeated people. I will take to my grave that we won the war. Militarily, we won the war (T82, UDA, Mid-Ulster).

At times this belief in the effectiveness of violence, could be quite nuanced, so while there was a widespread recognition that violence had resulted in positive social and political changes, there was also a general understanding it was not a solution to the greater political problems faced in Ireland. They also widely acknowledged that the sectarian nature of the violence created barriers that had made a peaceful solution to the conflict more difficult to obtain.

I think personally, it was too little gain for too much lost. The loss wasn't worth the gain. You could have had this 30 odd years ago with Sunningdale[3], with just a few variations. There is too much pain and too must loss for too little gain. Sunningdale for slow learners, as Seamus Mallon[4] said (T28, INLA, Belfast).

Theme 5: Community Support

In addition to strengthened identity, and increased beliefs in personal efficacy sustaining involvement, there was an understanding that the paramilitary groups were only able to exist and function with the wider support of the communities they were embedded in. Thus, community support was essential to maintaining the organizations and their violent campaigns.

In my community we couldn't have worked or operated without them. They were a vital cog in the war. They provided us with safe houses. They provided us with information, they provided us with alibis. We couldn't operate without them, we couldn't have worked without them (T27, UVF, North Antrim).

It is clear that both republican and loyalist armed groups had the support of at least a considerable minority of their respective community (Hayes and McAllister, 2005). While this support was fundamentally taken for granted by the republican interviewees, for a large proportion of the loyalist participants, there was an acknowledgment that this support could be, in the words of one former UVF member, "mercurial," and that the working class Protestant communities were less supportive of loyalist paramilitary groups than their republican counterparts. With the level of support offered reflecting the severity of the threat the wider Protestant community perceived to be emanating from republicans or a "treacherous" British Government (see Reed, 2015; McAuley, 2016).

Theme 6: Imprisonment, Radicalization and Strategic Development

While initial engagement in political violence was reactive (Ferguson and McAuley, 2019), paramilitary careers are not static, they are dynamic and continuously molded by life events, organizational changes, and the impact of outside forces. Deeper and sustained involvement is marked by an increased engagement with the organization, its members, norms and ideologies (see "Theme two"). Initial violence is now interrupted through sophisticated ideological lens that have been developed through introspection and educational opportunities, primarily provided through imprisonment:

Someone once said "isolation breeds introspection," certainly prison was an opportunity, however, unwelcome, to consider where we have been, and more importantly, where we are going. For some prison was a rude awakening, serving life on the basis of "kill all taigs" is little comfort when faced with the reality of losing your freedom, family and future. There has to be more than crude hatred. I listened carefully to what my comrades said. I listened to the politicians. I considered the role of the paramilitaries. I endorsed or rejected views which I felt were outdated or impractical. In my opinion, prison enabled men like me, to develop ideas which provided the groundwork for a stable and pluralist society (T95, UVF, Belfast).

Exposure to prison education and having the space for reflection was a key period in their militant career. It provided the opportunity for flexible deliberative System 2 thinking (Kahnerman, 2011) and prompted them to consider the nature of the conflict, and what was achievable in the long-term. Prison offered access to resources that were scarce in the working class republican and loyalist communities outside prison. For example, they held discussions with ideologs, returned to education, and developed their thinking beyond the intuitive System 1 thinking that had been key in much of the initial violence. For some they had the opportunity to participate in dialogue with representatives of oppositional groups, which provided opportunities to focus on contradictory viewpoints and challenge some of the dehumanized zero sum assumptions that they held prior to incarceration.

I became involved with the UVF when I was fourteen. I would have had a strong sense of being an Ulsterman or being British because of my father, and him serving in the war. I would have believed that God was Protestant, so believed that God was on our side and that we were right. Prison changed that, contact with

[3]The Sunningdale Agreement was a failed attempt to bring together a power-sharing government in Northern Ireland in 1973.

[4]Seamus Mallon was the deputy leader of the Social Democratic Labour Party (SDLP) and served as deputy First Minister of Northern Ireland from 1998 to 2001.

> republicans, those human relationships and conversations, started to breakdown that demonization that the enemy were all bad, that they were just evil, and that was that. Conversations in that prison context as humans made me realize that at the end of the day we are all the same (T90, UVF, Mid-Ulster).

To some degree, prison was a radicalizing process, in that it provided the space to develop ideological and political acumen that was absent at the beginning of the paramilitary career, as discussed by this INLA volunteer.

> Before you go to prison, unless you're actually very astute politically, all you really think about is going out and doing the business. But once you get in there you have the time to sit back and talk about things and realize that the only way of going forward at the minute is politics. You can't keep killing people forever (T35, INLA, Derry).

Incarceration was important in providing violent militants with new lens to review the conflict. This ideological turn then provided the grounding for many to begin a personal transformation away from using violence. A journey, which would push some toward seeking conflict transformation, rather than military victory.

> Prison was very important because that's where the embryo of the PUP [the Progressive Unionist Party] was actually created. That's where the embryo of the first peace initiatives were found because prisoners went on to question "why am I in here?" You have to ask yourself, "how did I end up shooting somebody because it's not in my nature?" If I had of been born elsewhere I would never have seen the inside of a prison cell. So, you start to question what society can create a situation where people go out and blow people up or shoot people dead. When just a year beforehand they would never have thought of doing any such thing. When you start to question those assumptions that's when you start to develop your thoughts and ideas (T77, RHC, Belfast).

While prison was radicalizing, in that, it involved an incremental commitment to political ideology (Horgan and Braddock, 2010). Incarceration also led to a move away from violent extremism as the sole method of bringing political change, as witnessed in the rise of the PUP and UDP (Ulster Democratic Party) and the move to the "armalite and ballot box" strategy of Sinn Fein and PIRA. This strategic turn allowed seasoned paramilitarists the opportunity to sustain their career via alternative pathways into community and politically focused avenues, routes that would have been unimaginable at the inception of their paramilitary careers.

DISCUSSION

The findings presented provide unique insights into the impact joining an armed group and engaging in violent extremism has for the extremist. It is clear from the narrative accounts the intense pressure and hardship a person and their family face when someone embarks on this militant lifestyle. Many of these stressors and hardships cut across the themes and relate to the psychological, social, economic, familial, and physical harm presented in the findings from combat veterans (Cigrang et al., 2014; Cabera et al., 2016). However, the accounts also demonstrate a less understood level of loss, in terms of how this lifestyle can result in the extremist losing their sense of self, control over their own lives, their sense of conscience and their moral compass in order to fuse with the organizational goals and participate in violence and killing (Bandura, 2004; Swann et al., 2012). Accounts of these harms drawn from actual militants are largely absent from the terrorism studies literature, and require further investigation.

In parallel with these negative consequences and losses, being a paramilitary led to an amplification in radical views and beliefs in the utility of violence. It strengthened feelings of empowerment and self-efficacy, while increasing the use of dehumanization and bias. These processes, developed through insulated contact between likeminded militants subjected to threat (Stoner, 1961; Janis, 1982), are necessary to sustain a militant lifestyle and buttress the militant against the pressures they face (Yao et al., 2014).

These narrative accounts clearly have synergy with the findings and predictions from identity fusion theory (Swann et al., 2012) and the devoted actor model (Atran et al., 2014). It is clear in the themes that engagement with the armed group leads to a shift in identity salience with personal identities becoming more fused (Swann et al., 2009) to the collective. These kin-like bonds and feelings of esprit de' corps are important for sustaining involvement and protecting the militant from both the external pressure and the self-harm caused by their actions. Findings reflective of the well-established links between health and identity in the face of political conflict (e.g., Muldoon et al., 2016). These presented accounts of engagement also reflect predictions from models of radicalization and the wider social movement literature (della Porta, 1995; Moghaddam, 2005; Taylor and Horgan, 2006; McCauley and Moskalenko, 2008; Vestergren et al., 2016). Demonstrating how devotion to the group and its members, under the conditions of isolation, threat and exposure to ideological education, develop activist identities, promote radicalization and sustain involvement with extremist groups even in face of grave adversity.

There was an understanding that for most militants a career as a paramilitary would inevitably lead to imprisonment or premature death, clearly two very negative life events. However, somewhat counter-intuitively the former prisoners tended to reflect on prison as a positive and transformational opportunity. The positive consequences of imprisonment reported here resonate with research on post-traumatic growth (Tedeschi and Calhoun, 2004) amongst long-term "ordinary" prison samples (Van Ginneken, 2016), prisoners of war and political prisoners (Salo et al., 2005; Solomon and Dekel, 2007). For these participants this transformational growth provided further support for their activism, while the educational and political knowledge they developed in prison was central to the transformation of the wider organization and the group's long-term political strategy. A transformation that would eventually remove organized violence from the group's strategic repertoire and see all the armed groups sampled in this study participate in the Northern Irish peace process to varying degrees.

These findings demonstrate the need to understand the terrorist or extremist lifestyle beyond the study of initial engagement or disengagement, the insights provided by the participants will help to develop a greater understanding of the processes involved in both maintaining and challenging violent extremism. They provide challenges for those involved in countering violent extremism and terrorism, on how to promote attitudes, identities and beliefs that will hasten to move individuals away from violence and/or extremist organizations toward desistence from violence and terror tactics. The findings also suggest synergies with other areas of study, such post-traumatic growth (Tedeschi and Calhoun, 2004) which have not received substantial attention in relation to violent extremism. In addition, to supporting theories which have made much more significant contributions, such as social movement approaches (Klandermans, 1984; van Stekelenburg et al., 2010; Vestergren et al., 2016), identity fusion (Swann et al., 2009, 2012), and social identity approaches (Van Zomeren et al., 2008).

All conflicts and armed groups are unique. Therefore, the lessons learned from an exploration of one context do not necessarily translate to other contexts. However, the themes raised through this analysis do show similarity to models of involvement in violent extremism (e.g., Moghaddam, 2005; Taylor and Horgan, 2006; McCauley and Moskalenko, 2008; Doosje et al., 2016). Therefore, the findings may provide a useful framework from which to explore how militants in other clandestine armed groups operating in different contexts sustain their involvement in violent extremism in face of external threats and the negative impact of this life path.

As with the vast majority of research on activism and engagement with violent extremism, (see Vestergren et al., 2016 for as discussion of these issues) this research relies on cross-sectional retrospective accounts collected at different time points, within the specific context of Northern Ireland. To remedy this weakness future research should attempt to be prospective and capture longitudinal data. Although we acknowledge, given nature of the research area, the ability to identify potential extremists and to collect pre-engagement data would be problematic, and pose demanding ethical dilemmas.

DATA AVAILABILITY STATEMENT

The datasets generated for this study will not be made publicly available. The data are taken from anonymized interviews of former combatants and prisoners from Northern Ireland, due to sensitivities around the content they are not publicly available. In addition neither author have the permission of the original participants to share this data in its compete state. Requests to access the datasets should be addressed to the corresponding author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Faculty of Sciences Ethical Committee at Liverpool Hope University and Centre for Research and Evidence on Security Threats (CREST) at the Lancaster University. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

NF was involved in collecting the original data, constructing the data set, analyzing the interview transcripts, and writing up the manuscript. JM was involved in collecting the original data, constructing the data set, auditing the analysis, and in the write up the manuscript.

FUNDING

This research was supported by a grant from the Centre for Research and Evidence on Security Threats (CREST) and Economic and Social Research Council (ESRC; ES/N009614/1). The funders were not involved in the research project beyond funding it.

REFERENCES

Altier, M. B., Boyle, E. L., Shortland, N. D., and Horgan, J. G. (2017). Why they leave: an analysis of terrorist disengagement events from eighty-seven autobiographical accounts. *Secur. Stud.* 26, 305–332. doi: 10.1080/09636412.2017.1280307

Atran, S., Sheikh, H., and Gomez, A. (2014). For cause and comrade: Devoted actors and willingness to fight. *Cliodynamics* 5, 41–57. doi: 10.21237/C7clio5124900

Bandura, A. (2004). "The role of selective moral disengagement in terrorism and counterterrorism," in *Understanding Terrorism: Psychosocial Roots, Causes, and Consequences*, eds F. M. Moghaddam and A. J. Marsella (Washington DC: American Psychological Association), 121–150. doi: 10.1037/10621-006

Borum, R. (2003). Understanding the terrorist mindset. *FBI Law Enforc. Bull.* 72, 7–10.

Borum, R. (2004). *Psychology of Terrorism*. Tampa, FL: University of South Florida.

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. doi: 10.1191/1478088706qp063oa

Bunting, B. P., Murphy, S. D., O'Neill, S., and Ferry, F. (2012). Lifetime prevalence of mental health disorders and delay in treatment following initial onset: evidence from the Northern Ireland study of health and stress. *Psychol. Med.* 42, 1727–1739. doi: 10.1017/S0033291711002510

Cabera, O. A., Adler, A. B., and Bliese, P. D. (2016). Growth mixture modelling of post-combat aggression: application to soldiers deployed to Iraq. *Psychiatry Res.* 246, 539–544. doi: 10.1016/j.psychres.2016.10.035

Chambers, J. W. (2003). S. L. A. Marshall's men against fire: new evidence regarding fire ratios. *Parameters* 33, 113–121.

Cigrang, J. A., Talcott, G. W., Tatum, J.-L., Baker, M., Cassidy, D., Sonnek, S., et al. (2014). Impact of combat deployment on psychological and relationship health: a longitudinal study. *J. Trauma. Stress* 27, 58–65. doi: 10.1002/jts.21890

Dalgaard-Nielsen, A. (2010). Violent radicalization in Europe. What we know and what we do not know. *Stud. Conflict Terrorism* 33, 797–814. doi: 10.1080/1057610x.2010.501423

Decou, C. R., Lynch, S. M., Cole, T. T., and Kaplan, S. P. (2015). Coping self-efficacy moderates the association between severity of partner violence and PTSD symptoms among incarcerated omen. *J. Trauma. Stress* 28, 465–468. doi: 10.1002/jts.22034

della Porta, D. (1995). *Social Movements, Political Violence, and the State: A Comparative Analysis of Italy and Germany*. New York, NY: Cambridge University Press.

Doosje, B., Moghaddam, F. M., Kruglanski, A. W., de Wolf, A., Mann, L., and Feddes, A. R. (2016). Terrorism, radicalization and de-radicalization. *Curr. Opin. Psychol.* 11, 79–84.

Engen, R. (2008). Killing for their country: a new look at "Killology". *Can. Mil. J.* 9, 120–128.

Ferguson, N. (2014). "Northern Irish ex-prisoners: the impact of imprisonment on prisoners and the peace process in Northern Ireland," in *Prisons, Terrorism and Extremism: Critical Issues in Management, Radicalisation and Reform*, ed. A. Silke (London: Routledge), 270–282.

Ferguson, N. (2016). Disengaging from terrorism: a Northern Irish experience. *J. Deradicalization* 6, 1–23.

Ferguson, N., and Binks, E. (2015). Understanding radicalization and engagement in terrorism through religious conversion motifs. *J. Strateg. Secur.* 8, 16–26. doi: 10.5038/1944-0472.8.1.1430

Ferguson, N., Burgess, M., and Hollywood, I. (2010). Who are the Victims? Victimhood experiences in post agreement Northern Ireland. *Polit. Psychol.* 31, 857–886. doi: 10.1111/j.1467-9221.2010.00791.x

Ferguson, N., Burgess, M., and Hollywood, I. (2015). Leaving violence behind: disengaging from politically motivated violence in Northern Ireland. *Polit. Psychol.* 36, 199–214. doi: 10.1111/pops.12103

Ferguson, N., and McAuley, J. W. (2019). Radicalization or Reaction? understanding engagement in violent extremism in Northern Ireland. *Polit. Psychol.* 41, 215–230. doi: 10.1111/pops.12618

Ferguson, N., McDaid, S., and McAuley, J. W. (2018). Social movements, structural violence, and conflict transformation in Northern Ireland: the role of loyalist paramilitaries. *Peace Conflict J. Peace Psychol.* 24, 19–26. doi: 10.1037/pac0000274 doi: 10.1037/pac0000274

Ferguson, N., and McKeown, S. (2016). "Social identity theory and intergroup conflict in Northern Ireland," in *Understanding Peace and Conflict through Social Identity Theory: Contemporary Global Perspectives*, eds S. McKeown, R. Haji, and N. Ferguson (New York, NY: Springer), 215–228.

Ghiglieri, M. P. (1999). *The Dark Side of Man: Tracing the Origins of Male Violence*. Cambridge: Perseus.

Gill, P. (2007). A multi-dimensional approach to suicide bombing. *Int. J. Confl. Violence* 1, 142–159.

Gómez, A., Morales, J. F., Hart, S., Vazquez, A., and Swann, W. B. Jr. (2011). Rejected and excluded forevermore, but even more devoted: irrevocable ostracism intensifies loyalty to the group among identity-fused persons. *Pers. Soc. Psychol. Bull.* 37, 1574–1586. doi: 10.1177/0146167211424580

Grossman, D. (1996). *On Killing: the Psychological Cost of Learning to Kill in War and Society*. New York, NY: Back Bay Books.

Hayes, B., and McAllister, I. (2005). Violence and paramilitarism in Northern Ireland and the Republic of Ireland. *Terror. Polit. Violence* 17, 599–617. doi: 10.1080/095465590944569

Hermenau, K., Hecker, T., Maedl, A., Schauer, M., and Elbert, T. (2013). Growing up in armed groups: trauma and aggression among child soldiers in DR Congo. *Eur. J. Psychotraumatol.* 4, 1–9.

Hogg, M. A., and Adelman, J. (2013). Uncertainty-identity theory: extreme groups, radical behavior, and authoritarian leadership. *J. Soc. Issues* 69, 436–454. doi: 10.1111/josi.12023

Hoover Green, A. (2016). The commander's dilemma: creating and controlling armed group violence. *J. Peace Res.* 53, 619–632. doi: 10.1177/0022343316653645

Horgan, J. (2003). "The search for the terrorist personality," in *Psychological Perspectives on Terrorism and Its Consequences*, ed. A. Silke (Chichester: John Wiley & Sons), 3–27.

Horgan, J. (2005). *The Psychology of Terrorism*. London: Routledge.

Horgan, J. (2017). Psychology of terrorism: introduction to the special issue. *Am. Psychol.* 72, 199–204. doi: 10.1037/amp0000148

Horgan, J., and Braddock, K. (2010). Rehabilitating the terrorists?: challenges in assessing the effectiveness of de-radicalization programs. *Terror. Polit. Violence* 22, 267–291. doi: 10.1080/09546551003594748

Horgan, J., and Taylor, M. (2011). "Disengagement, de-radicalization and the arc of terrorism: future directions for research," in *Jihadi Terrorism and the Radicalization Challenge: European and American Experiences*, ed. R. Coosaet (London: Ashgate), 173–186.

Jameison, R., Shirlow, P., and Grounds, A. (2010). *Ageing and Social Exclusion among Former Politically Motivated Prisoners in Northern Ireland and the Border Region of Ireland*. Belfast: Changing Age Partnership.

Janis, E. (1982). *Groupthink*. Boston, MA: Wadsworth.

Jensen, M., LaFree, G., James, P. A., Atwell-Seate, A., Pisoiu, A., Stevenson, J., et al. (2016). *Empirical Assessment of Domestic Radicalization (EADR), Final Report to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice*. College Park, MD: START.

Kahnerman, D. (2011). *Thinking, Fast and Slow*. New York, NY: Farrar, Straus & Giroux.

Keyes, K. M., Hatzenbuehlet, M. L., Grant, B. F., and Hasin, D. S. (2012). Stress and alcohol: epidemiologic evidence. *Alcohol Res.* 34, 391–400.

Klandermans, B. (1984). Mobilization and participation: social-psychological expansions of resource mobilization theory. *Am. Sociol. Rev.* 49, 583–600.

Kruglanski, A. W., Gelfand, M. J., Belanger, J. J., Sheveland, A., Hetiarachchi, M., and Gunaratna, R. (2014). The psychology of radicalization and deradicalization: how significance quest impacts violent extremism. *Adv. Polit. Psychol.* 1, 69–93. doi: 10.1111/pops.12163

Marshall, S. L. A. (2000). *Men Against Fire: The Problem of Battle Command in Future War*. Norman, OK: University of Oklahoma Press.

McAuley, J. W. (2016). *Very British Rebels? The Culture and Politics of Ulster Loyalism*. London: Bloomsbury.

McAuley, J. W., Tonge, J., and Shirlow, P. (2010). Conflict, transformation, and former loyalist paramilitary prisoners in Northern Ireland. *Terror. Polit. Violence* 22, 22–40. doi: 10.1080/09546550903409528

McCauley, C., and Moskalenko, S. (2008). Mechanisms of political radicalization: pathways toward terrorism. *Terror. Polit. Violence* 20, 415–433. doi: 10.1080/09546550802073367

McDonald, K. (2018). *Radicalization*. Cambridge: Polity Press.

McNair, R. M. (2002). Brief reports: perpetration-induced traumatic stress in combat veterans. *Peace Confl.* 8, 63–72. doi: 10.1207/s15327949pac0801_6

Meyer, D. Z., and Avery, L. M. (2009). Excel as a qualitative data analysis tool. *Field Methods* 21, 91–112. doi: 10.1177/1525822X08323985

Moghaddam, F. (2005). The staircase to terrorism: a psychological exploration. *Am. Psychol.* 60, 161–169. doi: 10.1037/0003-066x.60.2.161

Moghaddam, F. (2007). "The staircase to terrorism: a psychological exploration," in *Psychology of Terrorism*, eds B. Bongar, L. Brown, L. E. Beutler, J. N. Breckenridge, and P. G. Zimbardo (New York, NY: Oxford University Press), 69–80. doi: 10.1093/med:psych/9780195172492.003.0005

Muldoon, O. T., Lowe, R. D., and Schmid, K. (2016). "Identity and psychological health," in *Understanding Peace and Conflict through Social Identity Theory: Contemporary Global Perspectives*, eds S. McKeown, R. Haji, and N. Ferguson (New York, NY: Springer), 135–144.

Ose, S. O. (2016). Using excel and word to structure qualitative data. *J. Appl. Soc. Sci.* 10, 147–162. doi: 10.1177/1936724416664948

Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods*. London: Sage.

Precht, T. (2007). *Home Grown Terrorism and Islamist Radicalization in Europe: From Conversion to Terrorism*. Available online at: https://www.justitsministeriet.dk/sites/default/files/media/Arbejdsomraader/Forskning/Forskningspuljen/2011/2007/Home_grown_terrorism_and_Islamist_radicalisation_in_Europe_-_an_assessment_of_influencing_factors__2_.pdf (accessed June 8, 2019).

Raets, S. (2017). The we in me. Considering terrorist desistance from a social identity perspective. *J. Deradicaization* 13, 1–28.

Reed, R. (2015). *Paramilitary Loyalism: Identity and Change*. Manchester: Manchester University Press.

Russell, D., Russell, C. A., Riviere, L. A., Thomas, J. L., Wilk, J. E., and Bliese, P. D. (2014). Changes in alcohol use after traumatic experiences: the impact of combat on Army National Guardsmen. *Drug Alcohol Depend.* 139, 47–52. doi: 10.1016/j.drugalcdep.2014.03.004

Sageman, M. (2008). A strategy for fighting international Islamist terrorists. *Ann. Am. Acad. Polit. Soc. Sci.* 618, 223–231. doi: 10.1177/0002716208317051

Salo, J. A., Qouta, S., and Punamaki, R.-L. (2005). Adult attachment, posttraumatic growth and negative emotions among former political prisoners. *Anxiety Stress Coping* 18, 361–378. doi: 10.1080/10615800500289524

Schuurman, B. W. (2018). Research on terrorism, 2007-2016: a review of data, methods, and authorship. *Terror. Polit. Violence* doi: 10.1080/09546553.2018.1439023 [Epub ahead of print].

Shirlow, P. (2014). Rejection, shaming, enclosure, and moving on: variant experiences and meaning among loyalist former prisoners. *Stud. Confl. Terror.* 37, 733–746. doi: 10.1080/1057610x.2014.931215

Shirlow, P., and McEvoy, K. (2008). *Beyond the Wire. Former Prisoners and Conflict Transformation in Northern Ireland*. London: Pluto.

Shirlow, P., Tonge, J., McAuley, J., and McGlynn, C. (2010). *Abandoning Historical Conflict?: Former Political Prisoners and Reconciliation in Northern Ireland*. Manchester: Manchester University Press.

Silber, M. S., and Bhatt, A. (2007). *Radicalization in the West: The Homegrown Threat*. New York, NY: NYPD Intelligence Division.

Silke, A. (2001). The devil you know: continuing problems with research on terrorism. *Terror. Polit. Violence* 13, 1–14. doi: 10.1080/09546550109609697

Sinai, J. (2012). Radicalization into extremism and terrorism: a conceptual model. *Intelligencer* 19, 22–23.

Smith, J. A. (1995). "Semi-structured interviewing and qualitative analysis," in *Rethinking Methods in Psychology*, eds J. A. Smith, R. Harre, and L. Van Langenhove (London: Sage), 9–26.

Smith, J. A. (1996). Beyond the divide between cognition and discourse: using interpretative phenomenological analysis in health psychology. *Psychol. Health* 11, 261–271. doi: 10.1080/08870449608400256

Smith, J. A., Jarman, M., and Osborn, M. (1999). "Doing interpretative phenomenological analysis," in *Qualitative Health Psychology: Theories and Methods*, eds M. Murray and K. Chamberlain (London: Sage), 218–239.

Smith, T. C., Ryan, M. A. K., Wingard, D. L., Slymen, D. J., Sallis, J. F., and Kritz-Silverstein, D. (2008). New onset and persistent symptoms of post-traumatic stress disorder self reported after deployment and combat exposures: prospective population based U.S. military cohort study. *British Med. J.* 336, 366–371. doi: 10.1136/bmj.39430.638241

Solomon, Z., and Dekel, R. (2007). Posttraumatic stress disorder and posttraumatic growth among Israeli ex-POWs. *J. Trauma. Stress* 20, 303–312. doi: 10.1002/jts.20216

Stoner, J. A. F. (1961). *A Comparison of Individual and Group Decisions Involving Risk*. Master's thesis. Massachusetts Institute of Technology, Cambridge, MA.

Swann, W. B., Gomez, A., Seyle, D. C., Morales, J. F., and Huici, C. (2009). Identity fusion: the interplay of personal and social identities in extreme group behaviour. *J. Pers. Soc. Psychol.* 96, 995–1011. doi: 10.1037/a0013668

Swann, W. B., Jetten, J., Gomez, A., and Whitehouse, H. (2012). When group membership gets personal: a theory of identity fusion. *Psychol. Bull.* 119, 441–456. doi: 10.1037/a0028589

Taarnby, M. (2005). "Jihad in Denmark: an overview and analysis of Jihadi activity in Denmark (1990–2006)," in *Proceedings of the Copenhagen DIIS Working Paper No.* 2006/35, (København: Danish Institute for International Studies).

Taylor, M., and Horgan, J. (2006). A conceptual framework for understanding psychological process in the development of the terrorist. *Terror. Polit. Violence* 18, 585–601. doi: 10.1080/09546550600897413

Tedeschi, R. G., and Calhoun, L. G. (2004). Posttraumatic growth: conceptual foundations and empirical evidence. *Psychol. Inq.* 15, 1–18. doi: 10.1207/s15327965pli1501_01

Van Ginneken, E. F. J. C. (2016). Making sense of imprisonment: narratives of posttraumatic growth among female prisoners. *Int. J. Offender Ther. Comp. Criminol.* 60, 208–227. doi: 10.1177/0306624x14548531

van Stekelenburg, J., Oegema, D., and Klandermans, B. (2010). "No radicalization without identification: how ethnic Dutch and Dutch Muslim web forums radicalize over time," in *Identity and Participation in a Culturally Diverse Society: A Multidisciplinary Perspective*, eds A. E. Azzi, X. Chryssochoou, B. Klandermans, and B. Simon (New York, NY: Wiley-Blackwell), 256–274. doi: 10.1002/9781444328158.ch13

Van Zomeren, M., Postmes, T., and Spears, R. (2008). Toward an integrative social identity model of collective action: a quantitative research synthesis of three socio-psychological perspectives. *Psychol. Bull.* 134, 504–535. doi: 10.1037/0033-2909.134.4.504

Vestergren, S., Drury, J., and Hammar Chiriac, E. (2016). The biographical consequences of protest and activism: a systematic review and new typology. *Soc. Mov. Stud.* 16, 203–221. doi: 10.1080/14742837.2016.1252665

Victoroff, J. (2005). The mind of the terrorist: a review and critique of psychological approaches. *J. Confl. Resolut.* 49, 3–42. doi: 10.1177/0022002704272040

Whitehouse, H., McQuinn, B., Buhrmester, M., and Swann, W. B. (2014). Brothers in arms: Libyan revolutionaries bond like family. *PNAS* 111, 17783–17785. doi: 10.1073/pnas.1416284111

Wiktorowicz, Q. (2005). *Radical Islam Rising Muslim Extremism in the West*. Lanham, MD: Rowman & Littlefield.

Yao, Y., Wang, W., Wang, F., and Yao, W. (2014). General self-efficacy and the effect of hospital workplace violence on doctors' stress and job satisfaction in China. *Int. J. Occup. Med. Environ. Health* 24, 389–399.

Yardley, L. (2000). Dilemmas in qualitative health research. *Psychol. Health* 15, 215–228. doi: 10.1080/08870440008400302

Yin, R. K. (1989). *Case Study Research: Design and Methods*. Newbury Park, CA: Sage.

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Ferguson and McAuley. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

ORIGINAL RESEARCH
published: 07 January 2021
doi: 10.3389/fpsyg.2020.614657

Why People Enter and Embrace Violent Groups

Ángel Gómez[1,2], Mercedes Martínez[1], Francois Alexi Martel[3], Lucía López-Rodríguez[2,4], Alexandra Vázquez[1,2], Juana Chinchilla[1], Borja Paredes[5], Mal Hettiarachchi[6], Nafees Hamid[2] and William B. Swann[3]*

[1] Department of Social and Organizational Psychology, Faculty of Psychology, Universidad Nacional de Educación a Distancia, Madrid, Spain, [2] ARTIS International, St. Michaels, MD, United States, [3] Department of Psychology, University of Texas at Austin, Austin, TX, United States, [4] Department of Psychology, Faculty of Psychology, Universidad de Almería, Almería, Spain, [5] Department of Theory and Analisys of Comunication, Faculty of Sciences of Information, Universidad Complutense de Madrid, Madrid, Spain, [6] InReach Global, Centre for Psycho-Social Research & Training, Colombo, Sri Lanka

We distinguish two pathways people may follow when they join violent groups: compliance and internalization. Compliance occurs when individuals are coerced to join by powerful influence agents. Internalization occurs when individuals join due to a perceived convergence between the self and the group. We searched for evidence of each of these pathways in field investigations of former members of two renowned terrorist organizations: the Liberation Tigers of Tamil Eelam (LTTE) (Study 1) and Islamist radical groups (Study 2). Results indicated that ex-fighters joined LTTE for reasons associated with both compliance and internalization but that ex-fighters joined Islamist radical groups primarily for reasons associated with internalization. When compliance occurred, it often took the form of coercion within LTTE but involved charismatic persuasion agents within Islamist groups. This evidence of systematic differences in the reasons why fighters enter violent groups suggests that strategies for preventing radicalization and fostering de-radicalization should be tailored to particular groups.

Keywords: radicalization, terrorism, identity fusion, collective identity, social influence

OPEN ACCESS

Edited by:
Ana-Maria Bliuc,
University of Dundee, United Kingdom

Reviewed by:
Milan Obaidi,
University of Oslo, Norway
Kevin L. Blankenship,
Iowa State University, United States

Correspondence:
Ángel Gómez
agomez@psi.uned.es

Specialty section:
This article was submitted to Personality and Social Psychology, a section of the journal Frontiers in Psychology

Received: *06 October 2020*
Accepted: *09 December 2020*
Published: *07 January 2021*

Citation:
Gómez Á, Martínez M, Martel FA, López-Rodríguez L, Vázquez A, Chinchilla J, Paredes B, Hettiarachchi M, Hamid N and Swann WB (2021) Why People Enter and Embrace Violent Groups. Front. Psychol. 11:614657. doi: 10.3389/fpsyg.2020.614657

INTRODUCTION

Violent extremism and terrorism pose a growing threat to peace and security worldwide. To reduce this threat, the UN has recently declared 2020–2030 the Decade of Action. A top priority is fighting violent extremism through the adoption of systematic preventive measures (United Nations, 2006). Identifying these measures requires understanding the fundamental issue of why people join violent groups. Although previous researchers have developed several distinct classification systems for organizing the reasons people join violent groups (e.g., Bjørgo, 2011; Cottee and Hayward, 2011; Hafez and Mullins, 2015), no single formulation has won widespread acceptance among researchers.

The present research aims to contribute to understanding why people join violent groups in three ways. First, we draw on the attitude change literature (e.g., Kelman, 1952, 1958; Bagozzi and Lee, 2002) to distinguish two general pathways through which people may come to join violent groups: compliance and internalization. Second, we elaborate three situationally-driven sub-pathways that give rise to compliance (charismatic persuasion agent, propaganda, and coercion) and three identity-driven sub-pathways that give rise to internalization (personal, relational, and

collective identities). Third, we assess the applicability of our formulation in understanding why members of two violent terrorist organizations joined the group. Specifically, in Study 1 we used semi-structured interviews to directly assess the experience of ex-members of the Liberation Tigers of Tamil Eelam (LTTE), a militant terrorist organization of Sri Lanka. In Study 2 we analyzed the life stories of former Islamist radicals who were ex-members of violent jihadist groups. Prior to introducing our formulation, we review past attempts to understand the roots of terrorism.

WHY PEOPLE JOIN VIOLENT TERRORIST GROUPS: BASIC PERSONAL NEEDS, SHARED REALITIES, AND THE DESIRE FOR IMMERSION THROUGH IDENTITY FUSION

Previous studies have devoted considerable attention to the question of why people join violent groups (e.g., Horgan, 2005; Moghaddam, 2005; Wiktorowicz, 2005; Newman, 2006; McCauley and Moskalenko, 2008; Sánchez-Cuenca and de la Calle, 2009; Borum, 2011; Campana and Lapointe, 2012; Horowitz, 2015; Scull et al., 2020). Intuitively, one might believe that alignment with terrorist groups is explained by radical ideology.

This commonsense assumption collides with the fact that most people holding radical ideas do not actually engage in terrorism, and many terrorists are not completely radicalized (Bjørgo, 2011). Radicalization does not inevitably lead to violence and terrorism, even though it can facilitate them (Bjørgo and Horgan, 2009). After all, previous research indicates that attending religious services (thought to enhance coalitional commitment) is a more powerful predictor of support for suicide attacks than religious devotion (Ginges et al., 2009). Therefore, radical worldviews are only one among many potential causes of joining violent terrorist groups (Kruglanski and Fishman, 2009).

With such distinctions in mind, Borum (2011) defines *radicalization* as "the process of developing extremist ideologies and beliefs." This development of ideology is conceptually different from actual extremist acts, which Borum defines as *action pathways,* or "the process of engaging in terrorism or violent extremist actions" (p. 9). Our current focus is not the adoption of extremist ideologies *per se*, but the reasons that motivated former terrorists to join and support a terrorist group in the first place.

In line with the foregoing reasoning, the 3N model (Kruglanski et al., 2018; Bélanger et al., 2019; Lobato et al., 2020) identifies three general drivers of joining violent groups: need, narrative and network. According to this perspective, group membership can satisfy basic needs such as the need to feel valued and to be respected by others (Kruglanski et al., 2018). Different factors such as personal failures, interpersonal rejection, individual or collective grievances, or social alienation can induce a loss of personal significance through the loss of a compelling life narrative and the corresponding sense of purpose. To restore it, people may join groups that offer them a sense of purpose paired with feelings of camaraderie (Bélanger et al., 2019). Therefore, through joining such groups, individuals can address the basic need to be respected by others, they can establish a new narrative that gives their life meaning, and they also can experience the social benefits of being part of a network of people.

Groups do not operate in an ideological vacuum, but promote a shared reality (Hardin and Higgins, 1996), an ideological narrative that in the case of terrorist and violent organizations legitimizes violence. Such a narrative could be extraordinarily appealing after suffering a loss of personal significance or meaning, when people usually experience a thirst for revenge against those they consider blameworthy (Kruglanski and Orehek, 2011). By virtue of being part of a violent group and the adoption of its narrative, the use of violence that is generally reprimanded becomes tolerable (Bélanger et al., 2019).

Another motive that could explain why some individuals join these violent groups is identity fusion, or the development of a feeling of visceral sense of connection with the group (Swann et al., 2012). One of the key characteristics of violent and terrorist groups is that their members are willing to fight and even die for the group, and identity fusion research has consistently confirmed that fusion is a successful predictor of such extreme actions (see Gómez et al., 2020 for a review). Up until now, two main mechanisms have been identified as a cause or an amplifier of fusion with a group: shared experiences with other individuals, particularly dysphoric experiences (e.g., Whitehouse et al., 2017), and shared values (e.g., Swann et al., 2014). Of particular interest here is the fact that individuals might even fuse with groups that they do not (yet) belong to and with whom they do not share any previous association, such as when they perceive that the negative treatment suffered by an outgroup clashes with one's own beliefs (Kunst et al., 2018). Examples of fusion with a group have been found among Libyan insurgents fighting against the Gaddafi regime (Whitehouse et al., 2014), captured ISIS fighters (Gómez et al., 2017), Pakistani participants supporting the Kashmiri cause (Pretus et al., 2019), supporters of an Al Qaeda associated group (Hamid et al., 2019), Northern Irish loyalist and republican paramilitaries (Ferguson and McAuley, 2020), and fighters against the Islamic State including Peshmerga, Iraqi army Kurds, and Arab Sunni Militia (Gómez et al., 2017).

Although there is an impressive number of theoretical models on the causes of violent extremism (e.g., Neumann and Kleinmann, 2013; Hafez and Mullins, 2015; Pisoui and Ahmed, 2016; Vergani et al., 2018), less common are investigations including empirical data about this issue. A recent qualitative examination of the themes explaining why people join terrorist groups (i.e., ISIS and Al-Qaeda) in Kuwait through interviews with prison inmates identified five reasons for involvement: religious identity development (progression of the religious identity), personal connections (development of close social bonds with individuals and religious organizations), propaganda (influence by social media), defense of Islam (perception that Islam and specifically the Sunni sect of Islam is under threat), and social marginalization (social risk factors) (Scull et al., 2020). Although this model is promising, one of its limitations is

that it is based on the analyses of interviews with members of terrorist groups that are focused on ideological factors. Terrorists from groups with a different focus than ideology or from groups with a similar focus but in different contexts might decide to embrace such groups for reasons not captured with this sample. For instance, some authors have suggested that the reasons for entering into terrorist groups differ in conflict zones (i.e., trauma and revenge) and non-conflict zones (i.e., discrimination, marginalization, frustrated aspirations, desire for adventure, romance, personal significance, or the desire to be heroic) (Speckhard, 2015). Another limitation of this model is that it is based on interviews with only nine terrorists, so its generalizability is questionable.

While the previous models have contributed enormously to the identification and systematization of the reasons leading to involvement in violent groups, they have stopped short of providing an overarching scheme that explains how the various factors relate to one another. Another important limitation is that most of these classifications have not been supported by empirical data (see Scull et al., 2020 for an exception). In other words, previous research has not tested whether the classification is valid for groups with diverse organizational structures and whether the reasons for joining specific types of terrorist groups differ.

Our goal here is to take a preliminary step toward developing an overarching scheme informed by empirical data. At a very general level, the approach we suggest is reminiscent of the time-honored distinction within social and personality psychology between explanations of nature vs. nurture, genetics vs. environment, or traits vs. situations (e.g., Mischel, 1968). In a more specific sense, our approach draws on a classic theme in the social influence literature first advanced by Kelman (1958). He distinguished two forms of attitude change, one produced by internalization and the other produced by compliance. In the present context, we argue that internalization occurs when people are drawn into terrorist groups by the fit between the group and personal qualities such as identities, ideologies, narratives, needs, grievances, or background characteristics. It comprises an ample variety of motives that include, among others, the pursuit of power, status, and the desire to become a hero (e.g., Kruglanski et al., 2019); the establishment of close relational bonds with others (e.g., Gómez et al., 2019); and the adoption of highly valued causes (e.g., Atran, 2010). In contrast, compliance occurs when people are compelled to enter the group due to features of the situation, most notably propaganda, threats, or other situational pressures.

Although some authors have discussed compliance and internalization as potential reasons for joining violent groups (e.g., McCauley and Moskalenko, 2008), no research to date has systematically studied the role of these processes in the decision to join such groups. To determine the viability of this approach, we sought to identify terrorist groups in which either compliance or internalization seemed likely to emerge.

For evidence of the role of compliance, we were guided by a report by the United Nations Office on Drugs and Crime (UNODC, 2018), which indicated that forced recruitment is especially high in Africa and Asia (see Becker, 2010). For example, the Liberation Tigers of Tamil Eelam (LTTE) has been accused of forced recruitment of children, especially after 2002 (Ramesh, 2004).

For evidence of internalization, we referred to accounts of religious terrorist groups such as ISIS who are renowned for recruiting followers in mosques, prisons, and through social media sites in Western democratic countries (Berger, 2015).

Given these accounts, we selected a sample of former LTTE members and a second sample of former Islamist terrorists (mainly ISIS and Al-Qaeda members) for the current research. We expected to discover more evidence of compliance among former LTTE members than former members of Islamist groups. Conversely, we also expected to find more evidence of internalization among former members of Islamist groups than former members of LTTE.

OVERVIEW OF THE CURRENT RESEARCH

To test our predictions, we examined two groups that varied in ideology, nationality, and type of radicalization. Study 1 analyzed ex-members of the Liberation Tigers of Tamil Eelam (LTTE), a ruthless ethno-nationalist separatist terrorist group, proscribed by 32 countries as a terrorist organization (including the European Union, Canada, the United States, and India). The LTTE is the only terrorist group that has assassinated two serving heads of state using suicide bombers (the Prime Minister of India in 1991 and the President of Sri Lanka in 1993). All the participants interviewed in Study 1 were Asian.

Study 2 focused on Islamist radicals who, at some point, were members of violent jihadist groups. These groups included ISIS, Al-Qaeda, or one of their associated organizations that can be considered part of the global jihadi movement. All groups associated with the global jihadi movement oppose liberal democracies and are in favor of authoritarian religious oligarchies ruled by a fundamentalist interpretation of Sharia (Islamic law). While some of these groups believe in nationalism in the short-term, all of them ultimately seek to establish a borderless worldwide Caliphate in the long-term. In addition, these groups consider violent offensive jihad (Holy War) as the only way to achieve these goals. They also claim that it is incumbent upon all Muslims to engage in or facilitate this holy war. Most of the participants interviewed in Study 2 were European.

We pooled analyses for the protocols from either semi-structured interviews (Study 1), or from narratives derived from audio recordings (Study 2). Based on our research questions, the characteristics of the studies, and the nature of the data obtained, we combined data-driven coding in the First Cycle (descriptive coding method) with theory-driven coding in the Second Cycle (theoretical coding) that allowed us to refine our initial categorization (for a discussion of coding methods see Saldaña, 2013). After an initial review of the data using a descriptive coding method, we extracted specific codes for each participant. Such codes were labels –words that reflected the main topic of the reasons to embrace the radical group– such as force, propaganda, family issues, personal issues, and/or ideals. This first descriptive coding revealed two main patterns: internal forces (i.e., reasons

related to the individual that push to the radical group, that based on Kelman, 1952, correspond to identity-related reasons or internalization) and external forces (i.e., reasons related to external sources that pull the participant toward the radical group, that based on Kelman, 1952, correspond to influence or conformity reasons or compliance). These two categories were subdivided into subcategories. We elaborated three identity-related reasons for joining terrorist groups that reflect different forms of internalization (influences on personal, relational, and collective identities), and a second cluster of three reasons that involved compliance (charismatic persuasion agent, propaganda, and coercion). *Personal identity* refers to those aspects of the self-concept that allow differentiation from all others and make us unique; r*elational identity* is derived from connections with significant others and encompasses one's roles in close relationships; and *collective identity* comprises the cognitions, emotions, and values strongly linked to group membership. Compliance through a *charismatic persuasion agent* refers to being convinced by an individual group member such as a radicalized Imam cleric or a professional recruiter; *propaganda* refers to being convinced to join by recruitment material such as videos on the Internet; and *coercion* refers to being taken into the group by force. With the foregoing theoretical framework in mind, two judges recategorized the reasons in a second cycle coding, and then, intercoder agreement was evaluated. Then, frequency counts were presented for each category and subsequent subcategories and they were ordered in a hierarchical way with typical exemplars. Chi-squared tests were used to compare pairs of percentages within groups, and *z*-score tests were used to compare proportions between groups. What follows is a presentation of the methodology and results of each individual study.

Study 1. Why Ex-Members of the Liberation Tigers of Tamil Eelam (LTTE) Joined the Group

The LTTE's guerilla and terrorist activities were targeted at achieving a mono-ethnic separate state for the Tamil people in Sri Lanka. Upon its foundation on 5 May 1976, the LTTE commenced its campaign for a separate state. The murder of the Tamil Mayor of Jaffna, Alfred Duraiappa, in 1975, was the LTTE's first assassination and was conducted personally by Velupillai Prabhakaran, the leader of the LTTE. The LTTE was a well-developed terrorist group that operated an overt/semi-covert political wing and a clandestine military wing. Over time, the LTTE developed capabilities in guerrilla and mobile warfare but continued to employ terrorism until the end of the movement. They even developed affiliations with outside organizations, both within and beyond the theater of conflict, to establish a support base and ensure a steady stream of funding. The LTTE was finally defeated militarily in May 2009. The Sri Lankan government launched a formidable rehabilitation program to reintegrate the majority of the former members of the LTTE into the community. However, while the LTTE's operational capability on the ground has been neutralized, LTTE's overseas networks remain intact, and continue to pose a threat to Sri Lanka. Study 1 aimed to understand the reasons that a sample of ex-Tamil Tigers gave for joining this terrorist group.

Method

Participants

Seventy-five ex-members (38 women and 33 men; four did not report sex) of the LTTE were interviewed by a member of the research team. Their age varied from 22 to 56 with a mean age of 34 (*SD* = 7.82). Seventy-three had Sri Lankan nationality (two did not report nationality). Most of them were of Tamil ethnicity and Hindu. Only forty-four of them gave reasons for joining the group and were included in the analyses.

Procedure

Interviews were conducted in Kilinochchi and Viswamadu community centers, two regions where former LTTE members were reintegrated. The sample was selected randomly from a group of former LTTE members during community follow-up visits by the researcher. Community leaders gathered all the former terrorists who were available to participate in the study during the community visits. The data were collected using a structured questionnaire. Respondents were asked "How did you or others come/happen to join the LTTE? (What were the key reason that encouraged others/you to join this group?)." Because we were interested in the main reason for joining the group, participants were asked to think and choose only one, so the reasons showed in the result section are mutually exclusive. To diminish social desirability bias, the interviewer used third-person language instead of second-person language when discussing highly sensitive topics.

After the interview, two judges read all of the reasons provided by the participants and decided which pathway aligned with each given reason. They could discuss preliminary disagreements as needed. The reasons that didn't fit in with any of the pathways were classified as *other*.

Results

Judges showed a complete agreement in the sub-pathways of collective identity, relational identity, propaganda, and charismatic persuasion agent ($k = 1$), and an adequate inter-judge agreement in the sub-pathways of personal identity ($k = 0.83$), and coercion ($k = 0.86$). Those three reasons where there was disagreement were categorized as other[1]. **Figure 1** shows the percentage of the key reasons why participants joined LTTE. Ex-fighters from LTTE expressed an equivalent number of reasons for compliance versus internalization, $\chi^2(1) = 0.02$, $p = 0.876$. Within sub-pathways of compliance, more participants expressed reasons related to coercion than propaganda, $\chi^2(1) = 9.80$, $p = 0.002$, or charismatic persuasion, $\chi^2(1) = 14.22$, $p < 0.001$. Within sub-pathways of internalization, there were no differences in the percentages of participants who expressed reasons related to personal, relational or collective identity.

Almost half of the participants mentioned some form of compliance as the key reason for joining (47.7%). Looking at the

[1]Three reasons (P27: LTTE being there –everywhere; P61: LTTE was always there; and P62: When I was arrested by security) were categorized as "other" due to disagreements in the categorization process.

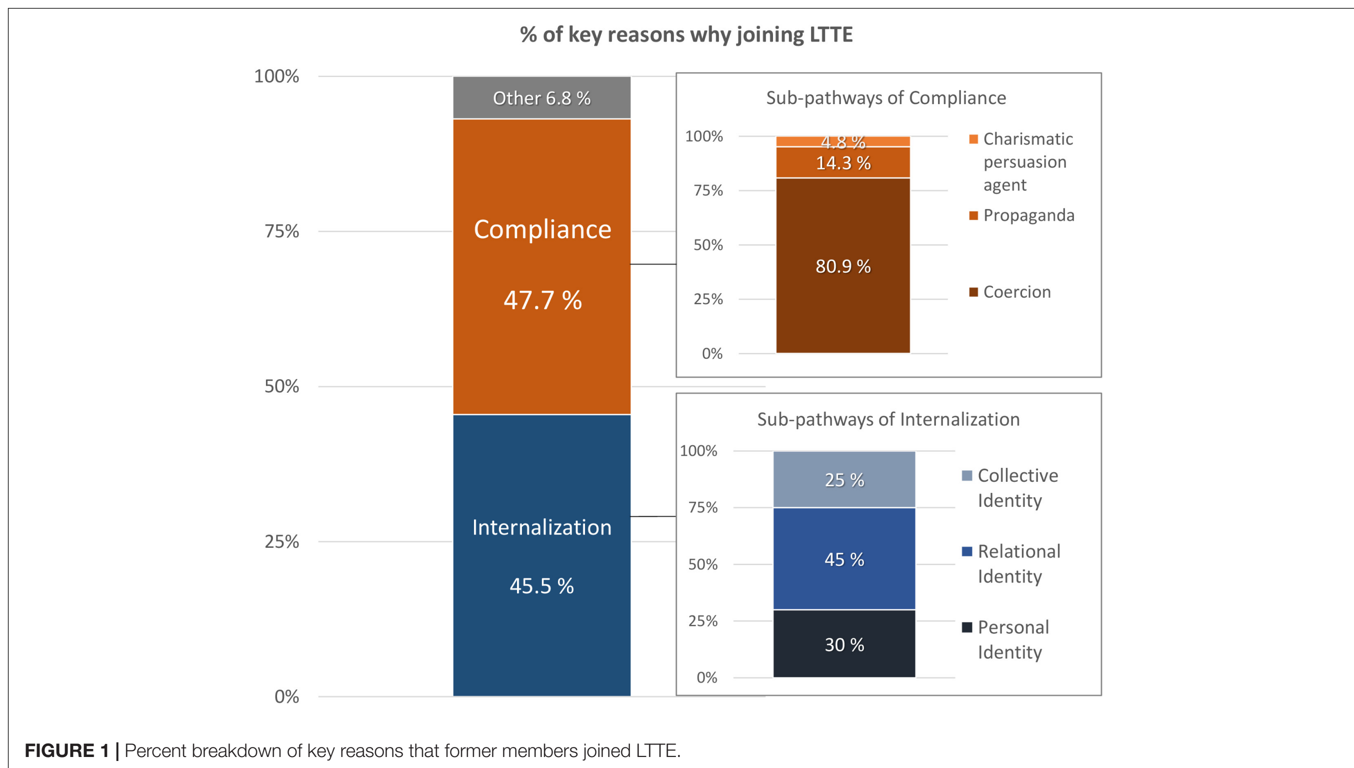

FIGURE 1 | Percent breakdown of key reasons that former members joined LTTE.

compliance pathway, most identified *Coercion* as the main reason for entering the group (80.9% of the total reasons referred to compliance). Some examples of coercion are ("P" refers to the participant number): P14 remembered joining "By force when going to school"; P21 told that she "did not like to join but had to" because "one in every family joined"; P50 explained he joined "When LTTE forcefully gathered people"; and P60 told she joined because of death threats by LTTE.

Propaganda was mentioned by a 14.3% of participants. Some examples of propaganda are: P25 mentioned different kinds of publicity by LTTE; P38 mentioned "Street drama of LTTE media"; and P44 referred to "Publicity, street drama, video" and "LTTE publicity."

Charismatic Persuasion Agent was mentioned by a 4.8% of participants. An example was P3, who talked about politicians highly valued by the community who recruited them.

Approximately half of the participants gave reasons for joining related to internalization (45.5%). Around half of these participants referred to *Relational Identity* as the reason for joining the group (45%). The examples for this sub-pathway refer to the loss of relational ties as a reason for becoming part of LTTE: P1 recognized having joined because people he knew died; P10 referred to losses and displacement; P15 remembered joining when his family died; P40 joined after his mother died; P49 joined because of loss of relatives; and P56 declared he joined after his wife's death.

Personal Identity was mentioned by 30% of participants who referred to internalization. Some examples are: P4 mentioned "Not much education," whereas P5 talked about the "Bad situation around us" as reasons for joining. P8 recognized having a very hard life and P59 joined because she was systematically neglected from jobs.

Finally, *Collective Identity* was mentioned by 25% of those who referred to internalization. Examples are: P12 said "The attachment I have about my ethnicity"; P13 "Thought we wanted a Tamil nation"; P19 joined "To get rights for Tamils"; P73 did it "to fight against discrimination and differences in social status, class."

Discussion

Study 1 shows that when we asked former LTTE about their main reason for joining the group, around half of them mentioned compliance while the other half referred to internalization. In the case of compliance, most participants explained that they joined the group because of coercion, some of them because of propaganda, and almost none because of the influence of a charismatic leader. However, in the case of internalization, the motives referring to the different sub-pathways were more balanced. The loss of relational ties such as, for example, the death of family members, was a key reason that encouraged joining LTTE. However, personal and collective identity were also mentioned as reasons for joining the group.

One of the limitations of this study is that former LTTE members were instructed to report "the key" reason that encouraged them to join. This procedure does not allow for the possibility that several, instead of just one, factors motivated them to enter the group. That is, complex social phenomena, such as entering violent groups, are often due to multiple causes acting together (e.g., Vergani et al., 2018; Atran, 2020). To learn more about the full range of considerations that led people to join

violent groups, in Study 2, we recorded life stories of members of radical Islamist organizations to identify all the myriad reasons that drove them to embrace violent groups as opposed to just the most important reason.

Study 2. Why Islamist Radicals Joined the Group

Study 2 analyzed the life stories of twenty-one Islamist radicals who were, at some point in their lives, members of violent jihadist groups. These groups included ISIS, Al-Qaeda, or one of their associated organizations that are considered part of the global jihadi movement.

Method

Participants

A total of 21 participants (18 men and 3 women, ranging in age from 21 to 59 years) qualified for this study by indicating that they had been a member of a jihadist terrorist organization at some point in their lives. There were no age, gender, or nationality criteria pre-established. Most participants were European. Six participants were Belgian, another three were Belgian-Moroccan, four participants were from Britain and three from France. Single individuals were Belgian-Tunisian, Pakistani-Spanish, Kosovan, Egyptian, and German.

Procedure

A member of the research team interviewed participants and then created life stories based on each interview. The way each participant was recruited for the interview varied person-to-person. In some cases, the participant was introduced to the researcher by a social worker or a community member. Sometimes, it was another participant who introduced the researcher to the next participant following a snowball technique. Other times, a friend or a family member introduced the participant. On some occasions, a lawyer introduced the participant, or the researcher contacted the participant online and arranged a face-to-face meeting.

The locations of the meetings were as diverse as the recruitment method. Some interviews took place in a lawyer's office with the participant's attorney present. Other times, they took place in the participant's domicile with no one else present. Lastly, some of the interviews were conducted in cafes or parks. All participants were told that the purpose of the interview was to attain their life history to show how and why they joined the Islamist group. They were informed that this research would be used for academic publications and that their identities would be anonymized. After oral consent was obtained, the researcher followed a semi-structured questionnaire. In some cases, there were multiple meetings with the same participant. The interviews took two hours on average and all responses were handwritten by the researcher.

The researcher gathered all the information of the life stories of each participant and then recorded a clip-summary of each life story separately. Then two members of the research team listened to the recordings and did a first round of coding by discussing the pathways that aligned with the reasons given for joining the Islamist groups. We organized the reasons for joining these violent Islamist groups into the same pathways as in Study 1: compliance (charismatic persuasion agent, propaganda, or coercion), and internalization (influences on personal, relational, or collective identities). Then two independent judges categorized the reasons given within the life stories of why participants joined the terrorist groups. They were offered the possibility to discuss preliminary disagreements. It was decided whether the reasons of each participant *did* or *did not* pertain to each of the pathways presented by indicating *yes* (coded 1) or *not* (coded 0) in each rationale. Reasons where disagreement was found were then rated as *other*. It is important to note two key differences in methodology between this and the previous study. First, in Study 1 we asked participants directly about the reasons for why they had joined the group, whereas in Study 2 this information emerged spontaneously during the conversation. Second, participants could only give one reason for why they joined the group in Study 1; in Study 2 they were able to give multiple reasons.

Results

The inter-judge agreement was complete for the sub-pathways of personal identity, relational identity, charismatic persuasion agent, and propaganda (k = 1.00). The agreement for collective identity was acceptably high (k = 0.89). There were no reports of coercion in this sample. Each life story included several reasons that could explain why participants joined radical groups. This study did not include one unique reason, but several, as the process of radicalization is complex and might entail different sources of influence throughout the life of an individual. So, contrary to what was reported in Study 1, where the total number of reasons was equivalent to the total number of participants, in Study 2 the 21 participants gave a total of 60 different reasons for joining the terrorist group. Many life histories contained elements with overlapping themes. For example, 16 life stories included reasons related to personal identity, but some of the same life stories also included reasons related to relational identity, collective identity, or some kind of social influence. The internalization pathway included a total of 47 reasons, with 16 life stories including personal-identity reasons, 17 included relational-identity reasons, and 14 included collective-identity reasons. A total of 13 reasons were considered evidence of compliance, with 8 life stories including reasons related to the presence of a charismatic agent and 5 including some form of propaganda. To transform the percentage of life stories where a reason was present (e.g., internalization) to the percentage of that specific reason among the total number of reasons presented in the life stories, we considered the total number of reasons offered as 100% (n reasons = 60) instead of the total number of participants/life stories analyzed (n = 21). So, the 47 reasons related to internalization corresponded to 78.3% of the total reasons present in the life stories. As in Study 1, the percentage of the subcategories took the total number of reasons in each category to be 100%. Please see **Table 1**, for reconversion values for both studies.

Figure 2 shows the percentage of life stories in Study 2 where the specific reason (compliance versus internalization) was mentioned. For each of these two pathways, the percentage of

TABLE 1 | Percentage of reasons among total reasons.

LTTE ex-fighters			Ex-Islamist radicals		
Reasons for joining	***n***	**%**	***Reasons for joining***	***n***	**%**
Total	44	100%	Total	60	100%
Compliance	21	47.73%	Compliance	13	21.67%
Internalization	20	45.45%	Internalization	47	78.33%
Compliance	***n***	**%**	***Compliance***	***n***	**%**
Total	21	100%	Total	13	100%
Charismatic agent	1	4.76%	Charismatic agent	8	61.54%
Propaganda	3	14.29%	Propaganda	5	38.46%
Coercion	17	80.95%	Coercion	0	0%
Internalization	***n***	**%**	***Internalization***	***n***	**%**
Total	20	100	Total	47	100
Personal Identity	6	30%	Personal Identity	16	34.04%
Relational Identity	9	45%	Relational Identity	17	36.17%
Collective Identity	5	25%	Collective Identity	14	29.79%

reasons that referred to each of the corresponding sub-pathways were listed. Note that for clarity, we are reporting the results here in the same format that we did in **Figure 1**. However, the data collection process was different in that participants in Study 1 reported only the single most important reason for joining, whereas participants in Study 2 reported all the reasons that came to mind. Overall, life stories in Study 2 included more reasons related to sub-pathways of internalization (a total of 47 reasons) than reasons related to compliance (a total of 13 reasons), $\chi^2(1) = 19.27$, $p < 0.001$.

Over 80% of the life stories analyzed included some kind of internalization as the key reason for joining the group. Regarding the sub-pathways of internalization, about one third of the reasons reported by participants referred to *Relational Identity*, such as disappointments with the close family that deteriorated their relational ties: P1 was very upset with her father, her family was disappointed at her, and she ran from home; P4 experienced feelings of exclusion and isolation from his family and his community. P4's family and community did not understand him from the beginning, and he remained isolated; P8 showed an unhealthy family relationship, and he was looking for a home, a place to belong; P10 also came from a broken home (i.e., his parents got divorced when he was very young, he had an absent father who was unable to help him), he had a big network of Moroccan friends, with whom he felt oneness and who satisfied his need to belong. One of his friends died, and, during the funeral in the mosque, he had a transformative experience and realized that he wanted to be part of the religious community. The group of Jean Louis Denis (a recruiter who convinced others to go to Syria to fight against the Syrian government) became a kind of family to him. The idea of going to Syria was important to him because he thought that there, he would be offered a family, a wife, a home, and the support necessary to sustain them; P11 also came from a broken home (i.e., divorced parents) and experienced tension with his parents, including lots of conflicts with his father. He went to Morocco to see some friends and he felt a sense of belonging. Finally, he went to Syria with his friend; P16 also came from a broken home and had experienced losses and divorce. She got in touch with a man from Syria online and initiated a virtual romance with him. She later converted to radical Islam to be with him and to marry him. Another participant, P9, mentioned that during a stay in

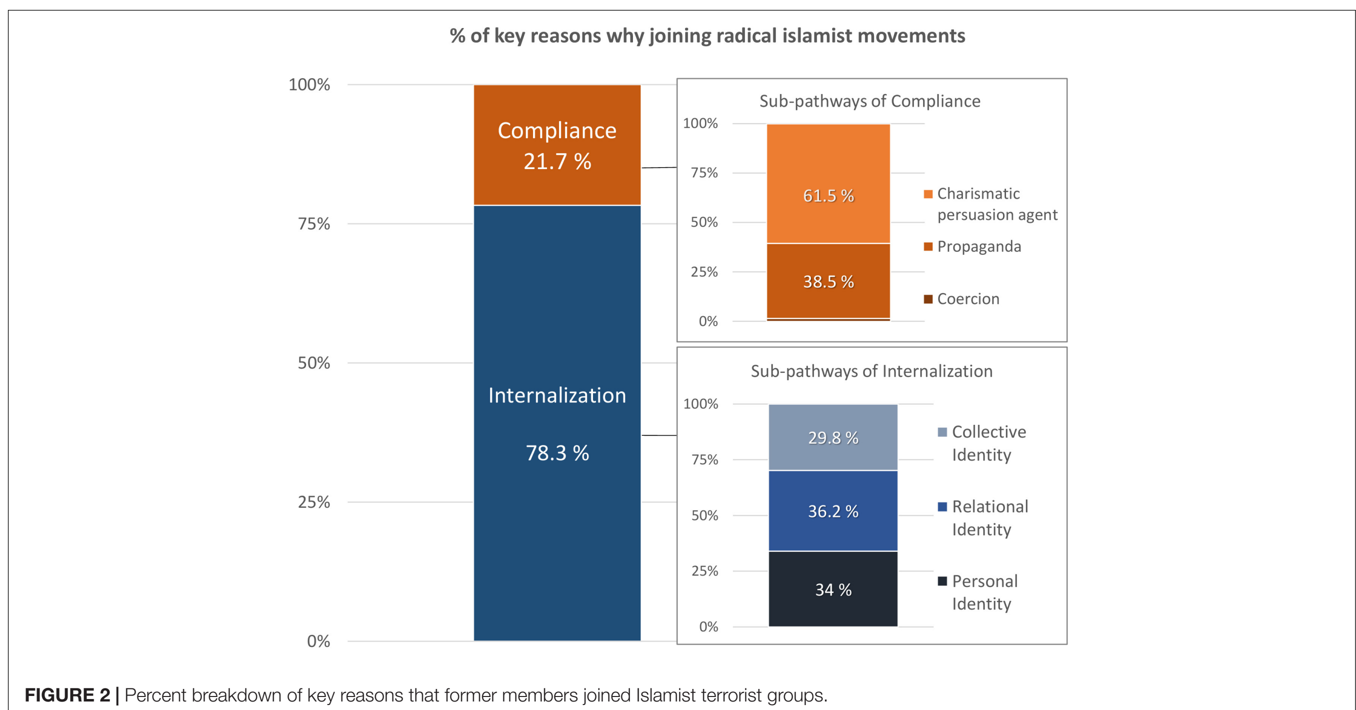

FIGURE 2 | Percent breakdown of key reasons that former members joined Islamist terrorist groups.

prison he found a group of radical Islamists who were willing to accept him; he established close relational ties with members of a terrorist group which allowed him to overcome his feelings of social isolation.

Approximately another third of the reasons reported by participants refer to examples of setbacks or advancements of their personal identity. P1, for example, used to live in the street after leaving her home, she had a "wild life," no self-respect and feelings of desperation. She wanted personal recognition and looked for redemption. P2 had depression and emotional problems and found in radical Islam an escape from depression; she also wanted to be part of something exciting. P6 saw in Syria an opportunity to become someone important: to be a hero. P11 was very overweight and had been teased because of that. P16 was looking for a change in her life. P15 had problems with the law. P19 has been kicked out from school and has an aggressive personality.

Finally, 29.8% of the internalization reasons included references to collective identity in terms of Muslim identity or sharing values and important ideas with a radicalized group. For example, P3 wanted to live a conservative religious life. P6 wanted to help Syrians because he believed that his own group (Kosovans) had lived through something similar in the 1990s. P7 and P15 mentioned problems with the "new world order." P11 was committed to ideas such as liberating Palestine and feeding refugees. He really wanted to embrace the Islamic identity, and he was very politicized. P12 was committed to the idea of defending and standing up with other people to fight against the discrimination of Muslims. Born from a white Belgian mother and a Moroccan father, he had some identity conflict issues. He was an Arab in Belgium and a White in Morocco. He was looking for a new, broader, and clearer collective identity. Feeling oppression and racism in both countries, he was really attracted to the idea of a Muslim Ummah.

On the other hand, less than a quarter of participants reported reasons related to compliance as a pathway for joining the group (21.7%). When looking at the sub-pathways of compliance, about two thirds of their expressions (61.5%) referred to the influence of a charismatic persuasion agent. For example, P1 was deeply influenced by an Arabic teacher who helped refugees. P3 was persuaded by neighbors, and, presumably by P2 (who was his wife). P10, P11, and P13 were politicized by Jean Louis Denis, the charismatic leader mentioned before, who encouraged them to go to Syria to show that they were real Muslims by trying to stop the humanitarian crisis of the refugees by combating its true causes. P20 met this top recruiter in Brussels as well and he became radicalized.

The other third of reasons related to compliance referred to propaganda (38.5%) that in most cases was combined with the influence of charismatic leaders. For example, P2 was recruited by her neighbors as well as by watching videos on internet. P4 met an Imam who influenced him, in addition to watching propaganda videos. P12 met an old colleague, the son of a radicalized Imam, who put ideas in his mind about what it meant to be a true Muslim. Afterward he and his friends began to watch videos of propaganda. No examples of coercion were identified in the life stories of the former Islamist terrorists.

Discussion

When we analyzed the main reasons that former Islamist terrorists spontaneously gave for joining their terrorist group, results indicated that most examples referred to the internalization pathway. Here, the distribution of the reasons in the three sub-pathways was quite evenly balanced between examples referring to relational, personal, and collective identity. Less common were examples of the compliance pathway, which usually corresponded to the influence of a charismatic leader combined with propaganda.

Additional Analyses

Although the procedure of Study 1 and Study 2 was different, we sought to make rough comparisons between them by transforming the original percentage of participants in Study 2 to make it comparable to Study 1 (see **Table 1**). We then compared the proportions of specific reasons for each group using a z-score test. Ex-Islamist radicals showed significantly more internalization reasons (47 over a total of 60 reasons) than LTTE ex-fighters (21 over a total of 44 reasons), $z = 3.46$, $p < 0.001$. The opposite pattern was found for compliance, with LTTE ex-fighters offering more reasons regarding compliance than ex-Islamist radicals, $z = 2.80$, $p = 0.005$. More specifically, within the compliance reasons, LTTE ex-fighters showed more reasons related to coercion than Islamists, $z = 5.26$, $p < 0.001$, whereas Islamists offered slightly more reasons related to a charismatic persuasive leader than LTTE ex-fighters, $z = 1.98$, $p = 0.048$. However, there were no differences between groups in the proportion of propaganda, $z = 0.29$, $p = 0.772$. Within the internalization category, there were no differences between LTTE ex-fighters and Islamists in the proportion of reasons related to personal, relational, or collective identity.

GENERAL DISCUSSION

The current research provides empirical evidence regarding why people enter terrorist groups. Specifically, in two studies former members of terrorist groups were asked for either their primary reason for joining (Study 1, former LTTE members), or for their life narratives in which they spontaneously referred to reasons for joining (Study 2, former members of radical Islamist groups). Mindful of the classic distinction in attitude-change literature advanced by Kelman (1958), we inspected participants' responses. We identified two pathways through which people may join violent groups: compliance and internalization. Compliance occurred when individuals joined groups because they were persuaded by a charismatic persuasive agent, exposed to propaganda, or coerced. In contrast, internalization occurred when individuals joined groups because of a convergence between the self and the group associated with their personal, relational, or collective identities.

The results of these two studies offered empirical evidence in line with our hypotheses. As expected, compliance was more frequently cited among former LTTE members than among former Islamist radicals. While almost half of former LTTE members reported compliance as a reason for joining the group,

Islamist radicals cited compliance much less frequently. Also consistent with our expectations, former members of Islamist groups cited internalization more frequently than former LTTE participants: while more than three quarters of the reasons given by Islamist radicals for why they joined the group referred to internalization, less than half of former LTTE participants reported that this was a motive for joining.

As we have seen, a sizeable proportion of LTTE members were forced to join through coercion. As a consequence, we notice that some of them, even if they had been engaged in the radical group, were not cognitively radicalized. This was the opposite of our sample of Islamist radicals, who embraced the importance of the "cause" (collective identity). These findings confirm Borum's (2011) contention that the process of radicalization is not necessarily the same as the process of action pathways, and that some members of terrorist groups can commit violent actions without being deeply ideologically radicalized. Whereas LTTE members were forced to enter in the group by coercion, Islamist radicals were persuaded by propaganda, which can explain why Islamist radicals show more cognitive radicalization than LTTE members. Another relevant finding is that personal identity reasons were more important for Islamist extremists than for LTTE members. This finding was not surprising given that most members of LTTE were forced to join, which could explain the relative powerlessness of their group to fit their personal identity. This confirms what has been commonly highlighted in the context of violent extremist research: non-identical root causes might apply to different types of terrorism and to the same types of terrorism in different contexts (e.g., Rapoport, 2004; Noricks, 2009; Speckhard, 2015). It is necessary to note as well that most of the former Islamist extremists that we interviewed were European, whereas most LTTE members were Asian, which is consistent with Vergani et al. (2018) conclusions that personal factors play a more prominent role in Europe, North America, and Australia than in the rest of the world.

Previous research might support why internalization in general, and personal identity in particular, is a relevant factor for joining Islamist radical groups. Although persuasion and propaganda are also important for understanding Islamist radicalization (e.g., Gendron, 2017; Kruglova, 2020), people do not become Islamist radicals through mere coercion or brainwashing (Sageman, 2004, 2008). Islamist terrorists typically go through a process involving active and selective engagement with groups that fit their idiosyncratic characteristics, thus suggesting internalization (Chernov-Hwang and Schulze, 2018; Scull et al., 2020). Other examples of internalization might be the research by Scull et al. (2020), indicating that participants in their study experienced a process in which religion became a central part of their personal identity. As their religious identity developed, they met people involved with Al-Qaeda or ISIS who, in turn, exposed them to propaganda in support for the radical ideology (see also Dawson and Amarasingam, 2017 who suggest existential concerns and religiosity). And some other investigations suggest that establishing relational bonds and relationships with members of Islamist terrorist groups are the common thread encouraging entry as well as in fostering commitment (Chernov-Hwang and Schulze, 2018).

Taken together, the present studies make a series of theoretical and empirical contributions to previous research regarding the reasons for entering into terrorist groups. First, we have introduced a new way of conceptualizing the reasons why people enter violent groups that draws on classic work on attitude change (Kelman, 1958). Our conceptualization is also based on an extensive review of the main theoretical models on the causes of engagement in terrorist groups, including the 3N model (Kruglanski et al., 2018), the model of the three Ps of radicalization (Vergani et al., 2018), and the model developed by Hafez and Mullins (2015), among others. By integrating the insights offered by these approaches, our conceptualization offers a new lens through which to contemplate the reasons that motivate individuals to join violent groups. Our conceptualization also makes it possible to establish distinctions between different types of terrorist groups that have been not considered until now. We believe that these distinctions will be useful for explaining why and how people decide to enter terrorist groups and for identifying the people and circumstances which are at high-risk for the creation of more adherents to a terrorist group.

Second, most of previous research on the causes that explain why individuals join terrorist groups is based on theoretical approaches to the phenomenon and does not satisfy the minimal methodological and empirical requisites of rigorous science (Neumann and Kleinmann, 2013). At an empirical level, for instance, studies have usually relied on secondary sources, opportunistic interviews, and even anecdotal evidence to support their arguments; investigations including samples of current and former terrorists have been inappropriately scarce (e.g., Neumann and Kleinmann, 2013). As a result, there is a huge quantity of concepts and theoretical models that are not backed up by tangible evidence within the field, which has prompted some experts to make a call for more scientifically-grounded research on why people join terrorist groups (e.g., Schuurman, 2018). Our studies responded to this call by including two samples of former terrorists and, as such, they increase our confidence in the possibility that the different pathways and sub-pathways leading to engagement with violent extremist groups that we have established with our model are a true reflection of this process.

Third, our research also may be useful for designing cost-effective strategies to counter violent extremism and, more specifically, to prevent people who are not yet members of terrorist groups from joining them. Our results indicate that factors related to compliance and internalization play a determining role in this process and that their relative importance vary as a function of the type of terrorist group along with the context in which the groups operate. This could help us design preventive interventions tailored to the specific characteristics of different terrorist groups and socio-political circumstances in which these interventions are meant to be applied.

When dealing with groups or contexts in which internalization predominates as a reason for joining, these strategies should be aimed at fighting feelings of discrimination, marginalization, and social alienation so that people from populations that are at risk may experience a better fit between themselves

and groups that do not support violence. This goal can be achieved in several ways, such as advancing community-aimed educational interventions (RAN, 2019), promoting the values of tolerance, solidarity and acceptance (RAN, 2019), or running interventions aimed at the development of feelings of brotherhood toward non-violent people through the practice of sport, like the London Tiger group has been doing in the United Kingdom for more than a decade (National Academies of Sciences Engineering and Medicine, 2017). People are often looking for new groups that allow them to satisfy their personal needs, to engage in meaningful relational roles, and to feel that there is a noble and legitimate cause behind their actions. When non-violent groups are able to provide these things, people may be more open to joining the ranks of such groups even though they do not commit violent offenses (e.g., Atran, 2010, 2020).

On the other hand, when we approach groups or circumstances in which compliance is more important than internalization as a reason for joining, the specific strategies that we should use will depend on the sub-pathways through which compliance exerts its effects. If people join terrorist groups mostly through propaganda and charismatic influence agents, strategies aimed at increasing resistance to persuasion, like the diffusion of counter-narratives, educational interventions to increase individuals' critical thinking, or public discrediting of terrorist leaders by former terrorists should be particularly effective (RAN, 2019). However, although some research focused on ISIS supports the positive effect of counter-narratives, there is also evidence that counter-narratives can have counterproductive effects on sympathizers of ISIS and individuals at great risk of radicalization, and regardless of the source of the message all counter-narratives with a religious argument backfired (Bélanger et al., 2020). If people join because of coercion, "hard" measures, like the decapitation of terrorist organizations, that is, the killing or imprisonment of terrorist leaders, may be needed (Price, 2012).

Lastly, our studies highlight some potential future lines of research. First, future investigations could test whether our conceptualization applies not only to ethno-nationalist separatist and religious terrorists but also to single-issue, left-wing, and right-wing violent extremists by examining the relative importance that compliance and internalization have in these different groups. Given the upsurge of terrorism from the radical right that has occurred in the last decade in some Western countries (Atran, 2020), we think that a deep exploration of the reasons that are driving people to join right-wing extremist groups at increasing rates would be particularly advisable. Second, other studies could test our model with violent groups that do not fall under the umbrella of terrorism, like Latin gangs or criminal organizations like the mafia, and compare them to terrorist groups. As gang members are more motivated by friendship, affiliation, and personal interest and less motivated by ideological causes than terrorists (Decker and Pyrooz, 2011), we think that internalization via personal and relational identity fit may be more frequent among gang members than among terrorists and, conversely that internalization via collective identity may be more common among terrorists than gang members. Third, some longitudinal studies could be run to gain a better understanding of how the process of joining violent extremist groups unfolds in real-time and to discover the different ways in which the factors covered by our model interact and influence the end result of this process. It is possible, for instance, that charismatic influence agents and propaganda mutually reinforce the impact of the internalization sub-pathways, thus making individuals more prone to becoming terrorists.

LIMITATIONS

The present research has some limitations. In particular, the different results obtained in the two studies could be due to methodological differences as opposed to the intrinsic characteristics of the groups (i.e., LTTE members were asked about the main reason for joining the group, whereas Islamist radicals recounted their life stories and the reasons for joining were extracted from the narratives).

Another potential limitation is that former terrorists may be concerned with presenting themselves in a favorable light that is not particularly accurate, which raises concerns about the validity of their reports. In particular, the interviewees may adjust their responses to give a good impression of themselves or the group, to appear less responsible for their actions and decisions, or to preserve their positive self-image. After all, former terrorists tend to overemphasize the role of situational/external factors such as persuasion, coercion and duty in explaining their involvement to dilute their own culpability (Horgan, 2014). They are also inclined to downplay the role of personal motives such as need for power, status, and thrill-seeking, which are rarely expressed in interviews (Horgan, 2014). These issues are especially notable in Study 1, where participants were explicitly asked for their reasons for joining the group. Although some researchers have found that terrorists are sincere in their answers (Kruglanski et al., 2019) and others have argued that it is necessary to take terrorists accounts of their motivations seriously (Nilsson, 2018; Dawson, 2019), we need to be cautious when interpreting interview data from terrorists or we run the risk of over- or under-stating the significance of certain experiences and events (Horgan, 2012, 2014).

Also, terrorists go through a dynamic and transformative process as they move along the different stages of radicalization and engagement. Their explanations of their reasons for joining the group may differ depending on their stage of (dis)engagement (Horgan, 2012). There is no reason to suppose that the explanations offered at one particular stage should be taken as more valid than those given at others (Dawson, 2019). Furthermore, as our main research interest is extreme behavior, our focus has been members of two of the most violent groups in history, whose members are willing to kill (and maybe some of them actually did it) and die if necessary, for the group or for their convictions, whether the categories that we have used here would apply to non-violent groups is an empirical question that opens the door for future research. Finally, the samples were quite small. Future research should assess the generalizability of our findings.

To address these limitations, future researchers might consider: (1) using the same methodology for data collection independently of the group and the stage of radicalization; (2) making use of sophisticated coding and analysis techniques (Miles et al., 2019); (3) combining qualitative and quantitative research methods (White, 2000); (4) collecting data with people at different stages of radicalization; and (5) comparing and verifying the data obtained from interviews with other data sources, such as the penitentiary and judicial records.

CONCLUSION

As the UN has acknowledged (United Nations, 2006), measures and policies aimed at countering violent extremism should focus on the prevention of radicalization among members of vulnerable communities. To this end, we need to understand the reasons that drive individuals to join violent extremist groups (e.g., Bakker, 2015; Schuurman, 2018). With the present research, we have attempted to integrate classic socio-psychological research on attitude change (Kelman, 1958) with more contemporary approaches to the study of terrorism (e.g., Kruglanski et al., 2018; Vergani et al., 2018). We report two studies with former members of terrorist groups that offer empirical support for our conceptualization that reasons for joining terrorist groups fall under the categories of internalization or compliance, which in turn can further be broken down into easily identifiable sub-pathways. It is our hope that this new theoretical frame will provide new insights into how to prevent violent radicalization as well as foster de-radicalization.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusion of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

ÁG designed the study. ÁG, WS, AV, JC, and FM wrote the manuscript. MH and NH collected the data. MM, LL-R, and BP analyzed the data. All authors contributed to the article and approved the submitted version.

FUNDING

The research was funded by Ministerio de Ciencia, Innovación y Universidades from the Spanish Government, Grants/Award Numbers: RTI2018-093550-B-100 and RTI2018-098576-A-I00, and AFOSR grants numbers FA9550-18-1-0496 and AFOSR FA9550-17-C-023. The funders were not involved in the research project beyond funding it.

REFERENCES

Atran, S. (2010). *Talking to the Enemy: Faith, Brotherhood and the (un)Making of Terrorists*. New York, NY: Harper Collins Publishers.

Atran, S. (2020). Psychology of transnational terrorism and extreme political conflict. *Annu. Rev. Psychol.* [Preprint]. 72. doi: 10.1146/annurev-psych-010419-050800

Bagozzi, R. P., and Lee, K. H. (2002). Multiple routes for social influence: the role of compliance, internalization, and social identity. *Soc. Psychol. Q.* 65, 226–247. doi: 10.2307/3090121

Bakker, E. (2015). *Terrorism and Counterterrorism Studies. Comparing Theory and Practice*. Leiden: Leiden University Press.

Becker, J. (2010). "Child recruitment in Burma, Sri Lanka, and Nepal," in *Child Soldiers in the Age of Fractured States*, eds S. Gates and S. Reich (Pittsburgh, PA: University of Pittsburgh Press), 108–120. doi: 10.2307/j.ctt5vkgp3

Bélanger, J. J., Moyano, M., Muhammad, H., Richardson, L., Lafrenière, M. A. K., McCaffery, P., et al. (2019). Radicalization leading to violence: a test of the 3N model. *Front. Psychiatry* 10:42. doi: 10.3389/fpsyt.2019.00042

Bélanger, J. J., Nisa, C. F., Schumpe, B. M., Gurmu, T., Williams, M. J., and Putra, I. E. (2020). Do counter-narratives reduce support for ISIS? Yes, but not for their target audience. *Front. Psychol.* 11:1059. doi: 10.3389/fpsyg.2020.01059

Berger, J. M. (2015). Tailored online interventions: the Islamic State's recruitment strategy. *CTC Sentinel* 8, 19–23.

Bjørgo, T. (2011). Dreams and disillusionment: engagement in and disengagement from militant extremist groups. *Crime Law Soc. Change* 55, 277–285. doi: 10.1007/s10611-011-9282-9

Bjørgo, T., and Horgan, J. (eds). (2009). *Leaving Terrorism Behind: Individual and Collective Disengagement*. Abingdon: Routledge.

Borum, R. (2011). Radicalization into violent extremism I: a review of social science theories. *J. Strat. Security* 4, 7–36. doi: 10.5038/1944-0472.4.4.1

Campana, A., and Lapointe, L. (2012). The structural "root" causes of non-suicide terrorism: a systematic scoping review. *Terrorism Polit. Violence* 24, 79–104. doi: 10.1080/09546553.2011.611547

Chernov-Hwang, J., and Schulze, K. E. (2018). Why they join: pathways into Indonesian Jihadist organizations. *Terrorism Polit. Violence* 30, 911–932. doi: 10.1080/09546553.2018.1481309

Cottee, S., and Hayward, K. (2011). Terrorist (e)motives: the existential attractions of terrorism. *Stud. Conflict Terrorism* 34, 963–986. doi: 10.1080/1057610X.2011.621116

Dawson, L. L. (2019). Taking terrorist accounts of their motivation seriously: an exploration of the hermeneutics of suspicion. *Perspect. Terrorism* 13, 74–89. doi: 10.2307/26798579

Dawson, L. L., and Amarasingam, A. (2017). Talking to foreign fighters: insights into the motivations for Hijrah to Syria and Iraq. *Stud. Conflict Terrorism* 40, 191–210. doi: 10.1080/1057610X.2016.1274216

Decker, S. H., and Pyrooz, D. C. (2011). Gangs, terrorism, and radicalization. *J. Strat. Security* 4, 151–166. doi: 10.5038/1944-0472.4.4.7

Ferguson, N., and McAuley, J. W. (2020). Staying engaged in terrorism: narrative accounts of sustaining participation in violent extremism. *Front. Psychol.* 11:1338. doi: 10.3389/fpsyg.2020.01338

Gendron, A. (2017). The call to Jihad: charismatic leaders and the Internet. *Stud. Conflict Terrorism* 40, 44–61. doi: 10.1080/1057610X.2016.1157046

Ginges, J., Hansen, I., and Norenzayan, A. (2009). Religion and support for suicide attacks. *Psychol. Sci.* 20, 224–230. doi: 10.1111/j.1467-9280.2009.02270.x

Gómez, Á, Chinchilla, J., Vázquez, A., López-Rodríguez, L., Paredes, B., and Martínez, M. (2020). Recent advances, misconceptions, untested assumptions,

and future research agenda for identity fusion theory. *Soc. Pers. Psychol. Compass* 14:e12531. doi: 10.1111/spc3.12531

Gómez, Á., López-Rodríguez, L., Sheikh, H., Ginges, J., Wilson, L., Waziri, H., et al. (2017). The devoted actor's will to fight and the spiritual dimension of human conflict. *Nat. Hum. Behav.* 1, 673–679. doi: 10.1038/s41562-017-0193-3

Gómez, Á., Vázquez, A., López-Rodríguez, L., Talaifar, S., Martínez, M., Buhrmester, M. D., et al. (2019). Why people abandon groups: degrading relational vs collective ties uniquely impacts identity fusion and identification. *J. Exp. Soc. Psychol.* 85:103853. doi: 10.1016/j.jesp.2019.103853

Hafez, M., and Mullins, C. (2015). The radicalization puzzle: a theoretical synthesis of empirical approaches to homegrown extremism. *Stud. Conflict Terrorism* 38, 958–975. doi: 10.1080/1057610X.2015.1051375

Hamid, N., Pretus, C., Atran, S., Crockett, M. J., Ginges, J., Sheikh, H., et al. (2019). Neuroimaging 'will to fight' for sacred values: an empirical case study with supporters of an Al Qaeda associate. *R. Soc. Open Sci.* 6:181585. doi: 10.1098/rsos.181585

Hardin, C. D., and Higgins, E. T. (1996). "Shared reality: how social verification makes the subjective objective," in *Handbook of Motivation and Cognition*, eds R. M. Sorrentino and E. T. Higgins (New York, NY: Guilford Press), 28–84.

Horgan, J. (2005). "The social and psychological characteristics of terrorism and terrorists," in *Root Causes of Terrorism: Myths, Reality and Ways Forward*, ed. T Bjorgo (Abingdon: Routledge), 44–53. doi: 10.4324/9780203337653_chapter_4

Horgan, J. (2012). Interviewing the terrorists: reflections on fieldwork and implications for psychological research. *Behav. Sci. Terrorism Political Aggression* 3:195211. doi: 10.1080/19434472.2011.594620

Horgan, J. (2014). *The Psychology of Terrorism*. Abingdon: Routledge.

Horowitz, M. (2015). The rise and spread of suicide bombing. *Annu. Rev. Polit. Sci.* 18, 69–84. doi: 10.1146/annurev-polisci-062813-051049

Kelman, H. C. (1952). Two phases of behavior change. *J. Soc. Issues* 8, 81–88. doi: 10.1111/j.1540-4560.1952.tb01607.x

Kelman, H. C. (1958). Compliance, identification, and internalization: three processes of attitude change. *J. Conflict Resolution* 2, 51–60. doi: 10.1177/002200275800200106

Kruglanski, A., Bélanguer, J. J., and Gunaratna, R. (2019). *The Three Pillars of Radicalization: Needs, Narratives and Networks*. Oxford: Oxford University Press.

Kruglanski, A. W., and Fishman, S. (2009). Psychological factors in terrorism and counterterrorism: individual, group, and organizational levels of analysis. *Soc. Issues Policy Rev.* 3, 1–44. doi: 10.1111/j.1751-2409.2009.01009.x

Kruglanski, A. W., Jasko, K., Webber, D., Chernikova, M., and Molinario, E. (2018). The making of violent extremists. *Rev. Gen. Psychol.* 22, 107–120. doi: 10.1037/gpr0000144

Kruglanski, A. W., and Orehek, E. (2011). "The role of the quest for personal significance in motivating terrorism," in *The Psychology of Social Conflict and Aggression*, eds J. Forgas, A. Kruglanski, and K. Williams (East Sussex: Psychology Press), 153–166.

Kruglova, A. (2020). I will tell you a story about Jihad": ISIS's propaganda and narrative advertising. *Stud. Conflict Terrorism* [Preprint]. doi: 10.1080/1057610X.2020.1799519

Kunst, J. R., Boos, B., Kimel, S. Y., Obaidi, M., Shani, M., and Thomsen, L. (2018). Engaging in extreme activism in support of others' political struggles: the role of politically motivated fusion with out-groups. *PLoS One* 13:e0190639. doi: 10.1371/journal.pone.0190639

Lobato, R. M., Moyano, M., Bélanger, J. J., and Trujillo, H. M. (2020). The role of vulnerable environments in support for homegrown terrorism: fieldwork using the 3N model. *Aggressive Behav.* [Preprint]. doi: 10.1002/ab.21933

McCauley, C., and Moskalenko, S. (2008). Mechanisms of political radicalization: pathways toward terrorism. *Terrorism Polit. Violence* 20, 415–433. doi: 10.1080/09546550802073367

Miles, M. B., Huberman, M., and Saldaña, J. (2019). *Qualitative Data Analysis: A Methods Sourcebook*, Fourth Edn. Thousand Oaks, CA: Sage.

Mischel, W. (1968). *Personality and Assessment*. Hoboken, NJ: Wiley.

Moghaddam, F. M. (2005). The staircase to terrorism: a psychological exploration. *Am. Psychol.* 60, 161–169. doi: 10.1037/0003-066X.60.2.161

National Academies of Sciences Engineering and Medicine (2017). "Countering violent extremism through public health practice," in *Proceedings of a Workshop. National Academies of Sciences Engineering and Medicine, NASEM*, Washington, DC. doi: 10.17226/24638

Neumann, P., and Kleinmann, S. (2013). How rigorous is radicalization research? *Democracy Security* 9, 360–382. doi: 10.1080/17419166.2013.802984

Newman, E. (2006). Exploring the "root causes" of terrorism. *Stud. Conflict Terrorism* 29, 749–772. doi: 10.1080/10576100600704069

Nilsson, M. (2018). Interviewing Jihadists: on the importance of drinking tea and other methodological considerations. *Stud. Conflict Terrorism* 41, 419–432. doi: 10.1080/1057610X.2017.1325649

Noricks, D. M. E. (2009). "The root causes of terrorism," in *Social Science for Counterterrorism: Putting the Pieces Together*, eds P. K. Davis and K. Cragin (Santa Monica, CA: RAND Corporation), 11–70.

Pisoui, D., and Ahmed, R. (2016). *Radicalisation Research-gap Analysis. Radicalization Awareness Network, RAN*. Available online at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/docs/pages/201612_radicalisation_research_gap_analysis_en.pdf (accessed November 26, 2020).

Pretus, C., Hamid, N., Sheikh, H., Gómez, Á, Ginges, J., Tobeña, A., et al. (2019). Ventromedial and dorsolateral prefrontal interactions underlie will to fight and die for a cause. *Soc. Cogn. Affect. Neurosci.* 14, 569–577. doi: 10.1093/scan/nsz034

Price, B. C. (2012). Targeting top terrorists. How leadership decapitation contributes to counterterrorism. *Int. Security* 36, 9–46. doi: 10.1162/isec_a_00075

Ramesh, R. (2004). *Tamil Tigers Still Enlisting Thousands of Child Soldiers. The Guardian*. Available online at: https://www.theguardian.com/world/2004/nov/12/srilanka (accessed November 12, 2004).

RAN (2019). *Preventing Radicalisation to Terrorism and Violent Extremism. Delivering Counter or Alternative Narratives. Radicalisation Awareness Network, RAN*. Available online at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/radicalisation_awareness_network/ran-best-practices/docs/delivering_alternative_narratives_en.pdf (accessed November 26, 2020).

Rapoport, D. C. (2004). "The four waves of modern terrorism," in *Attacking Terrorism: Elements of a Grand Strategy*, ed. A. K. Cronin (Georgetown: Georgetown University Press), 46–73.

Sageman, M. (2004). *Understanding Terrorist Networks*. Philadelphia, PA: University of Philadelphia Press.

Sageman, M. (2008). The next generation of terror. *Foreign Policy* 165, 37–42.

Saldaña, J. (2013). *The Coding Manual for Qualitative Researcher*, 2nd Edn. London: Sage.

Sánchez-Cuenca, I., and de la Calle, L. (2009). Domestic terrorism: the hidden side of political violence. *Annu. Rev. Political Sci.* 12, 31–49. doi: 10.1146/annurev.polisci.12.031607.094133

Schuurman, B. (2018). Research on terrorism, 2007-2016: a review of data, methods, and authorship. *Terrorism Political Violence* 32, 1011–1026. doi: 10.1080/09546553.2018.1439023

Scull, N. C., Alkhadher, O., and Alawadi, S. (2020). Why people join terrorist groups in Kuwait: a qualitative examination. *Political Psychol.* 41, 231–247. doi: 10.1111/pops.12622

Speckhard, A. (2015). Female Terrorists in ISIS, al Qaeda and 21rst Century Terrorism. Trends Research: Inside the Mind of a Jihadist. Available online at: https://trendsresearch.org/wp-content/uploads/2020/01/Female-Terrorists-in-ISISal-Qaeda-and-21rst-Century-Terrorism-Dr.-Anne-Speckhard.pdf

Swann, W. B. Jr., Buhrmester, M. D., Gómez, A., Jetten, J., Bastian, B., Vázquez, A., et al. (2014). What makes a group worth dying for? Identity fusion fosters perception of familial ties, promoting self-sacrifice. *J. Pers. Soc. Psychol.* 106, 912–926. doi: 10.1037/a0036089

Swann, W. B. Jr., Jetten, J., Gómez, A., Whitehouse, H., and Bastian, B. (2012). When group membership gets personal: a theory of identity fusion. *Psychol. Rev.* 119, 441–456. doi: 10.1037/a0028589

United Nations (2006). *UN Global Counter-Terrorism Strategy, A/RES/60/288*. Available online at: https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/60/288 (accessed September 20, 2006).

UNODC (2018). *Global Report on Trafficking in Persons in the Context of Armed Conflict*. New York, NY: United Nations.

Vergani, M., Iqbal, M., Ilbahar, E., and Barton, G. (2018). The three Ps of radicalization: push, pull and personal. A systematic scoping review of the scientific evidence about radicalization into violent extremism. *Stud. Conflict Terrorism* 43, 1–32. doi: 10.1080/1057610X.2018.1505686

White, R. W. (2000). Issues in the study of political violence: understanding the motives of participants in small group political violence. *Terrorism Political Violence* 12, 95–108. doi: 10.1080/09546650008427552

Whitehouse, H., Jong, J., Buhrmester, M. D., Gómez, Á, Bastian, B., Kavanagh, C. M., et al. (2017). The evolution of extreme cooperation via shared dysphoric experiences. *Sci. Rep.* 7:44292. doi: 10.1038/srep44292

Whitehouse, H., McQuinn, B., Buhrmester, M., and Swann, W. B. (2014). Brothers in arms: Libyan revolutionaries bond like family. *Proc. Natl. Acad. Sci. U.S.A.* 111, 17783–17785. doi: 10.1073/pnas.1416284111

Wiktorowicz, Q. (2005). A genealogy of radical islam. *Stud. Conflict Terrorism* 28, 75–97. doi: 10.1080/10576100590905057

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2021 Gómez, Martínez, Martel, López-Rodríguez, Vázquez, Chinchilla, Paredes, Hettiarachchi, Hamid and Swann. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

frontiers in Psychology

ORIGINAL RESEARCH
published: 14 July 2021
doi: 10.3389/fpsyg.2021.614473

Discover Your Inner Strength: A Positive Psychological Approach to Bolster Resilience and Address Radicalization

Mark Dechesne[1] and Jamal Ahajjaj[2]*

[1]Dual PhD Center, Faculty of Governance and Global Affairs, Leiden University, Leiden, Netherlands, [2]Faculty of Social Sciences, Free University of Amsterdam, Amsterdam, Netherlands

The article reports initial attempts to evaluate a new positive psychological approach to bolster resilience among Muslims in the Netherlands. The approach uses Quranic texts and principles from mental contrasting and implementation intentions (MCII) to encourage Muslims in the Netherlands to reflect in groups on appropriate responses to challenges they are facing. The participants are inspired by Quranic texts and encouraged to write responses to specific challenges in the form of IF-THEN rules and to practice these IF-THEN rules for several weeks. Two studies indicate that this approach increases personal growth initiative. The implications of these findings for the MCII literature and prevention/countering violent extremism are discussed.

Keywords: radicalization, resilience, securitization, community, positive psychology

OPEN ACCESS

Edited by:
*Ana-Maria Bliuc,
University of Dundee,
United Kingdom*

Reviewed by:
*Aaron L. Wichman,
Western Kentucky University,
United States
Idit Shalev,
Ariel University, Israel*

****Correspondence:***
*Mark Dechesne
m.dechesne@fgga.leidenuniv.nl*

Specialty section:
*This article was submitted to
Personality and Social Psychology,
a section of the journal
Frontiers in Psychology*

Received: *06 October 2020*
Accepted: *14 June 2021*
Published: *14 July 2021*

Citation:
*Dechesne M and Ahajjaj J (2021)
Discover Your Inner Strength:
A Positive Psychological Approach to
Bolster Resilience and Address
Radicalization.
Front. Psychol. 12:614473.
doi: 10.3389/fpsyg.2021.614473*

INTRODUCTION

Prevention and countering of violent extremism (P/CVE) has become hallmark principles of contemporary counterterrorism and counterradicalization strategy in Europe and (although decreasingly) in the United States. P/CVE goes beyond military effort and law enforcement to also prevent the spreading of violence-propagating ideology and build communal resilience and prevent societal rift. The Countering Violent Extremism Taskforce of the Department of Homeland Security (2020) describes P/CVE as "proactive actions to counter efforts by extremists to recruit, radicalize, and mobilize followers to violence. Fundamentally, CVE actions intend to address the conditions and reduce the factors that most likely contribute to recruitment and radicalization by violent extremists." By focusing on the stages that precede and follow terrorist acts, CVE implies a broadening of counterterrorism and counterradicalization policy to include a focus on the environments and communities, and on the ideologies, from which radicalization is considered to emanate.

Although hailed as a potential way to address the shortcoming of the strict military and law enforcement approach (Korn, 2016; Selim, 2016), the implementation of PVE/CVE has not been universally positively received. It has been suggested that the social, community approach comes with considerable stigmatization and that ethnic groups have become securitized beyond the terrorist threat that they pose (Choudhury, 2017; Silverman, 2017; Larsen, 2020). Also, with the emphasis on counternarratives, the suggestion has been that religion is a basis for extremism (Choudhury, 2017; De Koning, 2020). As efforts specifically focused on Jihadist

inspired forms of radicalizations in P/CVE efforts, resentment increased among a significant share of Muslims that Islamic schools of thought are equated with hostility, violence, and terrorism, and these schools of thought are considered subject of countering and replacement with alternative worldviews (Rashid, 2014; Beller and Kröger, 2020). Not just specific individuals or organizations but communities and religion as a whole have thereby become subjected to security scrutiny (Ragazzi, 2017; Spalek and Weeks, 2017).

In response to this concern, the present contribution makes a plea for a paradigm shift from a threat-based to a positive psychological approach to address radicalization, particularly in the context of Islam. We argue that current PVE/CVE practice derives in part from the assumption of the presence of a threat associated with Islam, which is increasingly difficult to identify as a broader share of the Muslim community becomes implicated in P/CVE programs (e.g., students at schools, mosque attendants, and youth groups). A positive community psychological approach that focusses on the strengths of religion rather than the threat it is alleged to pose may be more effective to realize P/CVE aims without actually seeking to counterradicalization. It is based on the assumption that religion may serve as a framework and source of inspiration for discovering practical ways of dealing with everyday challenges (Costin and Vignoles, 2020). In doing so, it helps to find one's inner strength and to improve personal effectiveness to deal with these challenges, thereby reducing grounds for societal hostility, and calls for radical change and extremism to bring about that change (Miconi et al., 2020).

For the present special issue, we outline the main ideas behind this positive alternative to P/CVE and report the procedures and preliminary finding of two meeting series in which we introduced the procedures. Based on systematic investigation of self-assessment surveys that were registered during these meetings series, we present preliminary findings showing that bolstering religious commitment may contribute to a sense of personal effectiveness in dealing with challenges faced by Muslims in Netherlands.

From Threat to Strength

P/CVE encompasses a broad set of initiatives aimed to prevent individuals, groups, and communities at risk of being targeted by radical messaging, from losing connection to society. Initiatives are generally aimed at raising awareness of processes of radicalization, promoting cohesion within communities, and fostering positive contact between communities. These general aims translate in educational programs, knowledge exchange sessions, contact and dialog initiatives, professional training, and community-building projects (Korn, 2016; Spalek and Weeks, 2017; Department of Homeland Security, 2020).

From a psychological angle, these initiatives are aimed to contribute to the establishment of relationship, dialog, and trust (Korn, 2016; Ellis and Abdi, 2017). But many have observed paradoxical results. When applied as broadly as they have been, the projects and initiatives are also directed at individuals, groups, and communities, who are not directly involved in extremism. Consequently, the number of "false positives" concerning "at risk" assessments increases dramatically (Sarma, 2017). Individuals and communities have been approached under the header of CVE with initiatives to establish rapport, dialog, and trust, paradoxically, in the anticipation of a rift that CVE programs are meant to prevent and counter (Ragazzi, 2017; Stanley et al., 2018). For a significant share of "false positives," this has contributed to a sense of alienation and insecurity, rather than the sense of relationship, dialog, and trust, the programs aimed to establish (Silverman, 2017).

We believe the paradox of the intent to establish rapport, dialog, and trust, essentially to manage a potential threat, has constituted the Achilles-heel of P/CVE initiatives. The root of the problem lies in an unbalanced relational trade-off: Whereas the targets of CVE programs are expected to establish rapport and trust, the initiators of the programs are entitled to act out of distrust. For effective dialog and rapport to emerge, this unbalance needs to be addressed. In order to establish genuine rapport, we need to shift from a threat-based approach, to an approach that focuses on true connection and trust, thereby creating space for dialog (Ellis and Abdi, 2017; Spalek and Weeks, 2017).

Positive psychology has valuable insight to offer in this context. At its very core, positive psychology represents an effort to move away from a focus on the problematic and a move toward the positive (Seligman, 2019). In the context of P/CVE, this essentially translates into a move away from a focus on threat and rather implies a focus on the positive, that is, a focus on the positive features of the groups that are considered to be "at risk." Although this is a task for the policy makers and practitioners that seek to implement P/CVE interventions, this task can be facilitated by initiatives by the communities that are considered to be "at risk" to show that there is an inner strength, which could be a driving force toward a constructive contribution to society.

This line of thinking represents a paradigm change in the program theory underlying P/CVE intervention. There need not be a change in attitude or shift in identification, or new knowledge (for instance about democracy) to be acquired among the "at risk" population (Feddes et al., 2019). There is also no need to promote contact in order to overcome differences. What is required, rather, is a demonstration that maintaining one's identity and living by it has positive consequences for one's participation in and contribution to society.

Discover Your Inner Strength

From this angle, we started an initiative that we termed "discover your inner strength" with groups of Dutch Muslims. The conceptual background for the program was influenced by existential psychology (Frankl, 1946; Paloutzian, 1981), social learning theory (Bandura, 1977), positive psychology (Duckworth and Seligman, 2017; Seligman, 2019), and health psychology – implementation intentions in particular (Oettingen and Gollwitzer, 2015).

In line with positive psychology, the basic assumption underlying the initiative is that participants in the initiative will be quicker to find positive, constructive solutions to challenges the participants are facing, because the initiative helps to enhance identification with religion and thereby provides inspiration from the "pious predecessors" whose deeds constitute the basis of Quranic narration. The participants are then encouraged to discuss these solutions with fellow attendees and consistent with research on implementation intentions (a cognitive psychological technique not specifically tied to positive psychology), to write the solutions in IF-THEN contingencies whereby the challenge follows the IF and the solution follows the THEN (Gollwitzer and Sheeran, 2006; Kappes and Oettingen, 2014).

This "Salafi" approach (the Salafi approach means practicing faith according to the example of the pious predecessors – the first three generations of Islam) represents a significant departure from common ways in which CVE programs are implemented. For one, a common denominator of these previous programs is the goal of promoting sympathy or support for the "democratic values" or peaceful coalescence (Feddes et al., 2015, 2019). In the current approach, the emphasis is on affirming and bolstering one's own identity and using it to bring about positive change. Secondly, Salafism itself is often met with suspicion and various analysis point to Salafist ideology as a precursor to support for violent extremism (Wiktorowicz, 2006; Malthaner, 2014; Winter and Muhanna-Matar, 2020). In the present initiative, it is considered a constructive force rather than a driver of isolation, hostility, and extremism.

In doing so, we aim to provide an alternative approach to "counternarratives" that have been employed to redress radicalization. Publicly available empirical evidence on the effectiveness of counterradicalization initiatives is very scarce, but the widespread embrace of the use of counternarratives by policy makers has been described with skepticism (Ferguson, 2016). In one of the very few attempts to systematically study responses to counternarratives, (Bélanger et al., 2021, p. 93) concluded that "countermessages do actually more harm than good" as they showed that presentation of a political countermessage led participants with an obsessive passion for a cause to become more psychological reactant and display greater willingness to engage in violent political behaviors. The Aarhus model to address radicalization (e.g., Ozer and Bertelsen, 2019) relies less on counternarratives and is more based on the idea that strengthening identity development makes one more resilient to radical messages. The assumption is that a clear sense of identity, i.e., a clear sense of who one is, and one's position vis-à-vis others and society at large, and a clear ability to realize one's life goals, helps the individual cope with frustrations of life and to contribute constructively rather than destructively to society. But the emphasis in this model is foremost on the creation of personal identity. The potential of social/religious identity to contribute to resilience remains unaddressed, while religion and community are essential resources for validation and affirmation of one's sense of self and self-integrity, which are crucial for effective goal pursuit and coping with adversity (Greenberg et al., 1986; Baumeister and Leary, 1995).

Thus, the initiative, which is schematically described in **Figure 1**, was built to identify positive, constructive solutions to basic challenges that the participants were facing using the

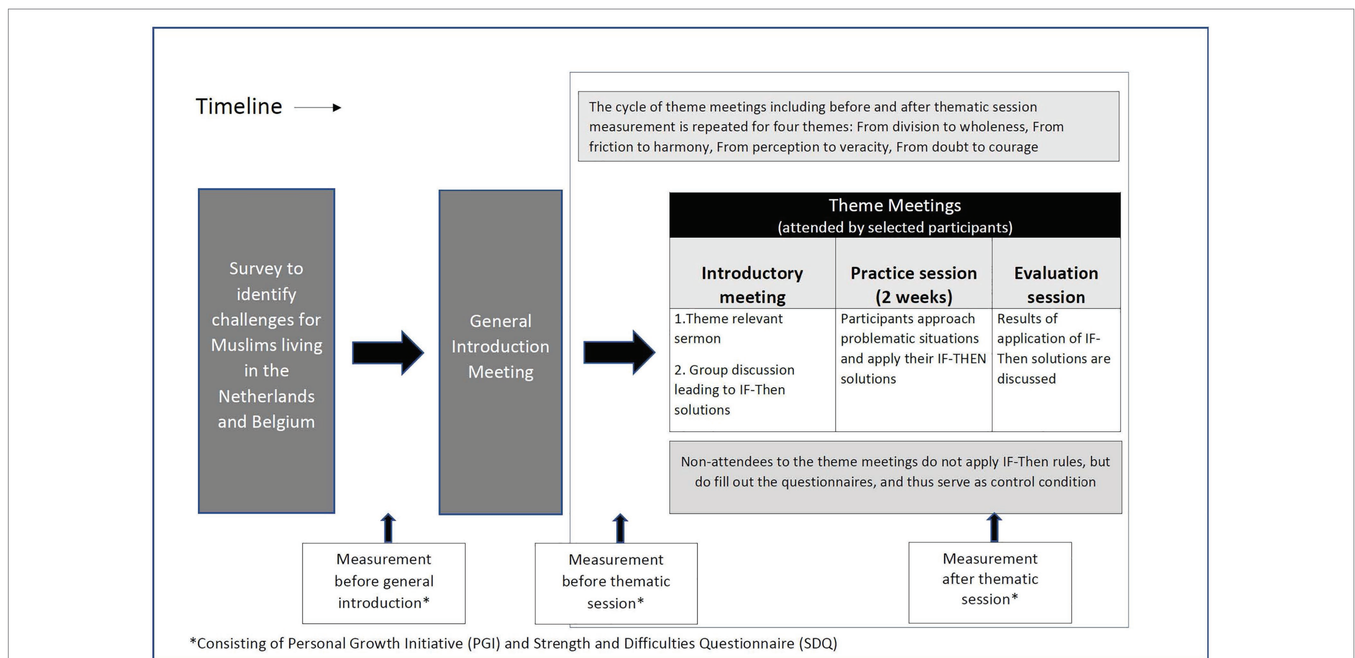

FIGURE 1 | Schematic overview of the design of the intervention.

religious scriptures as a source of inspiration. To obtain a sense of the type of challenges that Muslims in the Netherlands are facing, we put up an announcement of the initiative on a widely attended Web site that provides Islamic content to a Dutch and Belgian audience. The announcement invited volunteers to describe the challenges they were facing as a Muslim in the Netherlands. The researchers then categorized the answers in four categories: challenges related to (1) division among Muslims; (2) friction between Muslims and non-Muslims; (3) negative perceptions by non-Muslims regarding Muslims; and (4) intrapersonal concerns, such as anxiety, self-doubt, and loneliness.

For each of the four categories, positive alternative was identified. In this way, we could organize the initiative around four themes, each of which aiming to establish a positive perspective or goal in response to a challenge. The first concerned the theme "from division to wholeness"; the second "from friction to harmony"; the third "from perception to veracity"; and the fourth "from doubt to courage."

Each theme was addressed during an introductory meeting, a practice run, and an evaluation session. During the introductory meeting, theme-relevant sermons of the Quran were selected and discussed by the imam involved in the project. The attendees were then seated in groups of 4 to 6 and encouraged to discuss challenges that were related to the meeting theme and to jointly develop effective ways to address these challenges. Attendees were encouraged to use the Quranic sermons as source of inspiration to find effective ways to address the challenge. In line with research on mental contrasting and implementation intentions, attendees were instructed to formulate the outcome of their discussions in the form of "IF … THEN …" rules (Gollwitzer and Sheeran, 2006). The identified challenge was written after the "IF," and the suggested action to deal with the challenge after the "THEN." The solutions that were identified were presented to all attendees at the end of the introductory meeting. During the practice run that lasted for 2 weeks, the participants were encouraged to approach the problematic situations and to carry out their IF-THEN plans as they had formulated it. During the evaluation session, the results of the efforts were discussed.

There is considerable evidence that formulating mental contrasts (in this case, the themes "from division to wholeness," etc.) and implementation intentions (i.e., specific courses of actions to address the identified challenge, for instance associated with division) positively impacts goal commitment and execution of goal-directed behavior (Gollwitzer and Sheeran, 2006). Mental contrasting facilitates accessibility of desired ends, and formulating IF-THEN rules to guide behavior when encountering situations that may undermine the attainment of these desired ends, and thereby promotes the motivation to engage in behavior to achieve this desirable end (Kappes and Oettingen, 2014). Furthermore, according to the theory, the prior consideration of a situated response in terms of an IF-THEN production rule also contributes to the accessibility of a behavioral response, thus facilitating the automatic as opposed controlled execution of the response. Moreover, the simultaneous activation of the goal and situated response is assumed to promote efficacy the with which goals and goal-directed behavior are linked (Kappes and Oettingen, 2014). This simple technique of formulating IF-THEN rules has indeed been shown to enhance effectiveness of health promoting behavior, such as refraining from snacks and exercising, to promote cognitive control, and to enhance self-efficacy (Oettingen and Gollwitzer, 2015).

For the present purpose, we focused our measurement on social and personal control. It was hypothesized that the described procedure would enhance social, personal, and affective control when encountering challenging situations for Muslims in the Netherlands.

STUDY 1: FIRST MEETING SERIES

The first meeting series on this "discover your inner strength" was held between December 2018 and June 2019 at various locations in The Hague, the Netherlands. At a general introductory session held at a mosque, approximately 80 Muslims from different parts of the Netherlands attended. During this general introductory session, attendees were welcomed and explained the general background of the initiative. Participants could indicate their preference for participating in one of the four thematic sessions (as described above), each of which consisting of an introductory meeting, a practice run, and an evaluation session. The meeting series was set up so that one participant would follow one thematic session. However, in actual practice, several who had signed up did not attend, and those who had participated in a previous thematic session showed up in subsequent sessions. In this way, a group of approximately 20 participants were formed who attended the four thematic sessions. Although this contributed to more profound discussion on the methods and experiences of the participants, it did interfere with the envisaged research design.

The initial research design involved repeated survey input from all attendees. It was explained that participants could only attend the general introductory meeting if they had filled out the questionnaire that constituted the basis for the central analyses. The same questionnaire was planned to be filled out by all participants before the general introductory meeting, and for all the four thematic sessions, before the introductory meeting of the thematic session and before the feedback sessions. Thus, all participants in the initiative, regardless of whether they attended a session or not, were initially asked to fill in the same questionnaire nine times.

With this full design, we could have assessed the impact of participating in a specific session (by comparing the scores of those who attended versus those who did not attend) and the impact and durability of this impact of participating in general (relative to not-participating). However, many participants complained about the necessity to repeatedly complete the questionnaire, and because of a change in date for organizational reasons, several invitees were not able to participate in the second thematic session, and hence, it was not feasible to do so.

As a consequence, we focused our attention for the analysis on the first survey administered prior to the general introductory meeting, and the one prior to the introductory thematic meeting, and on the survey prior to the feedback meeting of the first

thematic session on "division and wholeness." Participants filled out the survey that contained questions regarding their ability to grow as a person, i.e., personal growth initiative (Robitschek, 1998). An extensive meta-analysis (Weigold et al., 2020) on the correlates of PGI shows in various clinical, education, and performance-related settings, significant correlations between the construct and reduced reduce distress and enhanced wellbeing in response to stressful and potentially traumatic events. We also measured emotional stability and relatedness to others using an adapted version of the Strength and Difficulties Questionnaire (SDQ) developed by Goodman (2001). We assessed the extent to which participating in the "from division to wholeness" affected these measures.

MATERIALS AND METHODS

Participants

Participation was voluntary, and no monetary reward was given for participating in the study, while attendance to the meeting was free of charge. Although more individuals contributed to the initiative, we received 66 responses to our call to fill out the questionnaires.

This group consisting of 25 male and 41 female Muslims living in the Netherlands (age range: 16–55, with *Mdn* = 26) filled out the questionnaires at least once. **Table 1** summarizes the completion behavior of the respondents for the three questionnaires. As can be gleaned from **Table 1**, only 22 respondents filled the questionnaire three times as requested. The limited number of respondents who completed all three questionnaires is a concern for the main analyses. To obtain a better sense of the specificity of the finding to the limited set of participants, we will consider not only the participants who filled out the questionnaires during all three time periods but also those who completed the questionnaire at measurement 3, after having completed one prior questionnaire.

Procedures

The general introduction session was held at the main prayer room of a large Mosque in The Hague. Approximately 80 participants attended the meeting. They were welcomed by the two organizers. The organizers explained that the initiative was about finding positive solutions to challenges that Muslims in the Netherlands are facing in their everyday life. The procedure and underlying ideas were explained in considerable detail. One of the organizers talked about personal experiences and how faith served as a source of strength and inspiration. The other organizer explained in general terms how the four thematic clusters of challenges faced by Muslims in the Netherlands were identified, explained the conceptual background and procedures of the mental contrasting and implementation intention method, and explained the rationale behind the questionnaire as a tool to monitor the impact of the procedure. Participants were then assigned to one of the four thematic sessions and informed about the content and procedure of the thematic sessions. It was stressed that participation was on voluntary basis and participants were free to withdraw from the study at any point in time.

TABLE 1 | Number of respondents who completed the questionnaire.

Measurement	*N*	Percentage
Before general introduction session only	11	16.7%
Before thematic session only	13	19.7%
After thematic session only	6	9.1%
Before general introduction session and before thematic session only	7	10.6%
Before thematic session and after thematic session only	5	7.6%
Before general introduction session and after thematic session only	3	4.5%
Before general introduction session, and before thematic session and after thematic session	21	31.8%
Total	66	100%

The thematic session "from division to wholeness" was the first in the series and held at a community center of an Islamic organization in The Hague. Attendees were welcomed by the organizers and seated by gender at tables of 4 to 6. After a general welcome, the attendees were explained that their input on challenges related to division within the Muslim community had led the imam to select the surah *Ale-Imran*, verse number 103, as a fitting text to reflect on the theme. The surah states:

> And hold fast, all of you together, to the Rope of Allah (i.e., this Qur'an), and be not divided among yourselves, and remember Allah's Favor on you, for you were enemies one to another but He joined your hearts together, so that, by His Grace, you became brethren (in Islamic Faith), and you were on the brink of a pit of Fire, and He saved you from it. Thus Allah makes His Ayat (proofs, evidences, verses, lessons, signs, revelations, etc.,) clear to you, that you may be guided.

After a reflection by the imam on the verse, participants were encouraged to discuss how this verse may provide inspiration for addressing day-to-day challenges and to provide a summary of the discussion in IF … THEN … format. Specifically, they were asked to write the challenge they were facing after the "IF" and their solution after the "THEN"; hence, "IF I encounter this challenge THEN I should do…" Each group formulated several of these IF THEN statements, mostly more than six statements. Examples of these statements include "IF I have a disagreement with my parent regarding religion THEN I treat my parents with respect and discuss my viewpoint in an open manner" and "IF I know of fellow Muslims who refuse to go to my Mosque THEN I will search for a respected mediator to explore the possibility of reconciliation." Each table then presented the results during a general discussion. Attendees were encouraged to put in practice the IF THEN rule they had formulated during the 2 weeks after the meeting.

After the 2 weeks of practice, participants (both those who had attended the thematic session and those who had not) were sent an email encouraging them to complete the questionnaire once more.

Questionnaire

The introduction of the questionnaire stressed that all data would be treated confidentially. It was noted that attendees were asked to write their names on the forms but this was only done to be able to link the scores of the multiple measurements. Participants were instructed to indicate their endorsement with statements using a 7-point scale whereby 1 indicated completely disagree and 7 indicated completely agree. The statements were derived from the existing questionnaires. We asked participants to indicate their endorsement of statements pertaining to their PGI (Robitschek, 1998). This scale includes items, such as "I know how to make a realistic plan to change myself," "I actively work to improve myself," and "I look for opportunities to grow as a person." We also asked participants to indicate their (dis)agreement with an adapted version of the SDQ (Goodman, 2001). Although originally meant for diagnosis of psychiatric disorder in children, we thought the statements were suitable to measure emotional wellbeing and sociability, regardless of age of the participant. For instance, items include "I feel sometimes afraid, and I am easily scared," "I am easily distracted," and "I am aware of the feelings of others."

RESULTS

Factor Analysis

Principle component factor analyses were conducted on the PGI and SDQ for a consistent set of items. For the PGI, we found that most items loaded on a single factor. Items with a factor loading < 0.40 were deleted from the composite score that was used for further analyses. The SDQ revealed a two-factor structure with a first factor clustering items together that all appear to be related to emotional stability and a second factor clustering items together that appear to pertain to sociability. Hence, we used personal growth initiative, emotional stability, and sociability as the three scales to investigate the impact of participation in the thematic session.

Personal Growth Initiative

The PGI composite scores were subjected to a 2 (Attendance: Attendance versus No attendance at the thematic session) between-subjects × 3 [Measurement: (1) Before general introduction vs (2) Before thematic session vs (3) After thematic session and practice] within-subject ANOVA. This analysis yielded a significant main effect for Measurement, $F(2, 14) = 6.78$, $p < 0.01$, with a hint of a qualification by Attendance × Measurement interaction, $F(2, 14) = 2.55$, $p < 0.12$. **Figure 2** provides the relevant means.

Analysis of participants who completed the questionnaires before the general introduction meeting and after the thematic session and practice (i.e., measurements 1 and measurement 3) showed a similar effect with a main effect for measurement $F(1, 19) = 8.66$, $p < 0.01$, but now with a significant interaction, $F(1, 19) = 7.14$, $p < 0.02$. An analysis of participants who only completed the questionnaires before and after the thematic session but not before the general introduction session (i.e., measurement 2 and measurement 3) also revealed a similar pattern, now without a significant main effect, $F(1, 20) = 0.96$, $p < 0.34$, but with a significant interaction, $F(1, 20) = 7.39$, $p < 0.02$.

If there was an effect of the intervention, we would expect this to occur for those participants who attended (vs. those who did not attend) the thematic session and had engaged in the practice session. For participants in the thematic session, we expected greater PGI after the participants had attended the session and after practice.

Follow-up analyses confirmed this. Participants who attended the thematic session and practiced showed higher PGI after the session and practice than before. Comparing the scores from the general introduction meeting to the post thematic session and practice measure (i.e., measurement 1 vs. 3), the difference is $F(1, 11) = 19.92$, $p < 0.002$, with $M = 109.91$ and $SD = 14.28$ at measurement 1 vs. $M = 116.83$ and $SD = 13.27$ at measurement 3. The corresponding F-value for the measurement 2 vs. measurement 3 comparison is $F(1, 10) = 13.79$, $p < 0.005$, with $M = 110.36$ and $SD = 13.44$ at measurement 2. Participants who did not attend the thematic session showed no increase in PGI at measurement 3 relative to measurement 1, $F(1, 8) = 0.029$, $p > 0.86$, nor relative to measurement 2, $F(1, 10) = 1.00$, $p > 0.34$, with respective statistics, $M = 103.67$ and $SD = 19.64$ at measurement 3 vs. $M = 103.33$ and $SD = 23.33$ at measurement 1, and $M = 108.10$ and $SD = 17.58$ at measurement 2. Participants who attended showed higher PGI relative to those who did not attend, but only after the thematic session had taken place, $F(1, 30) = 7.61$, $p < 0.01$. Before the session, there were no differences between attendance versus no attendance groups, $F(1, 40) = 0.052$, $p > 0.81$ at measurement 1, and $F(1, 41) = 0.224$, $p > 0.63$ at measurement 2, suggesting the observed differences cannot be attributed to pre-selection.

Emotional Wellbeing

We also performed a 2 (Attendance) between-subjects × 3 (Measurement) within-subject ANOVA on the emotional wellbeing subscale of the SDQ. This analysis yielded a marginally significant main effect of Attendance, $F(2, 15) = 3.19$, $p < 0.08$, but no sign of an interaction of Attendance and Measurement, $F(2, 15) = 0.437$, $p > 0.65$. **Figure 3** depicts the relevant means. The main effect of Attendance appears to indicate that irrespective of the time of measurement, participants who did not attend the thematic session and engaged in practice reported less wellbeing than those who did. But given that this differences were already observed twice before the thematic session and practice, this difference is likely to have been caused by a selection mechanism that appears irrelevant for the purposes of the study.

Sociability

Similarly, to the emotional wellbeing scale, there were also no significant main effects nor interactions for a 2 (Attendance) × 3 (Measurement) ANOVA performed on sociability. We found no indication of a main effect, $F(2, 18) = 0.41$, $p > 0.95$, nor of an interaction, $F(2, 18) = 0.73$, $p > 0.92$. Because of the very limited yield of this analysis, we will not discuss it further.

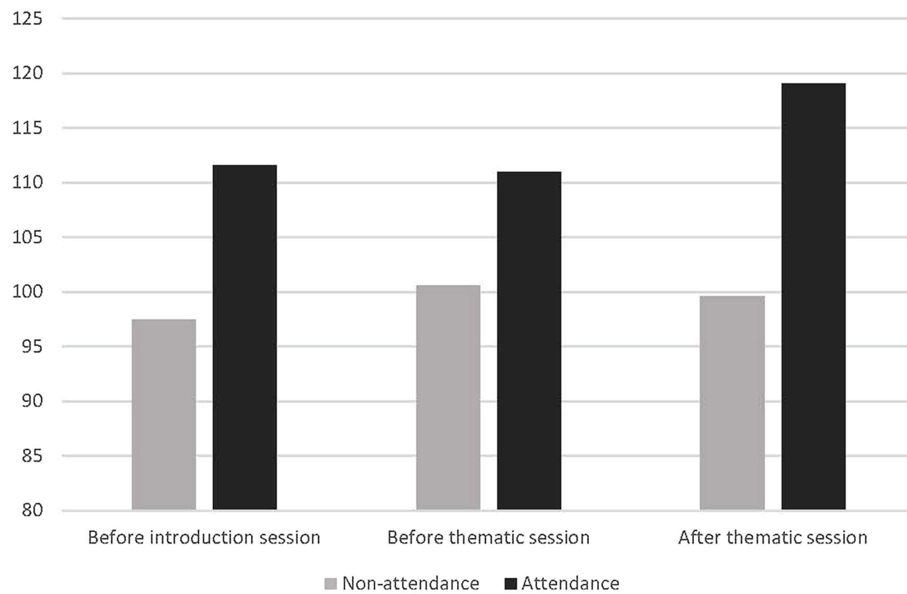

FIGURE 2 | Mean personal growth initiative (PGI) scores in Study 1 as a function of timing of measurement attendance (versus non-attendance) to a thematic session and practice afterward. Higher cores indicate greater personal growth initiative. Scores could be from 22 (lowest) to 154 (highest).

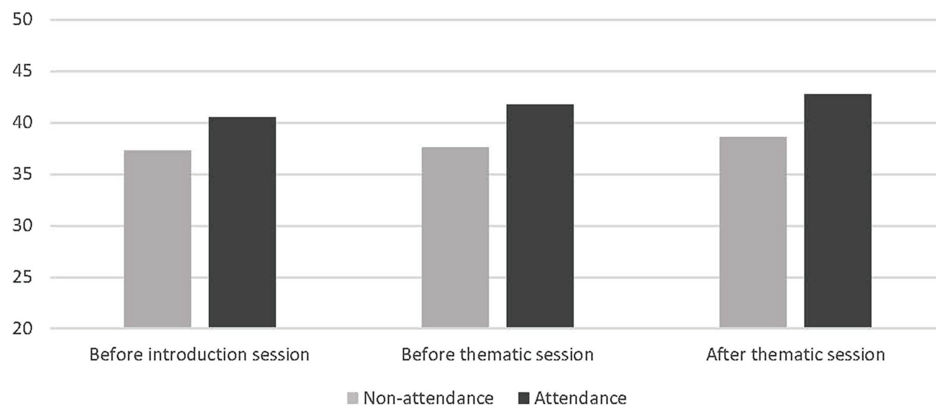

FIGURE 3 | Mean emotional wellbeing scores in Study 1 as a function of timing of measurement attendance (versus non-attendance) to a thematic session and practice afterward. Higher cores indicate greater emotional wellbeing. Scores could be from 8 (lowest) to 56 (highest).

DISCUSSION

The results of the first study to assess the impact of the "discover your inner strength' initiative on participants' personal growth initiative, emotional wellbeing, and sociability provided some encouraging results. Although we did not find effects of the procedures on emotional wellbeing and sociability, we did register tentative evidence that addressing challenges faced by Muslims in the Netherlands by using Quranic texts as a source of inspiration to define implementation intentions to achieve a desired stated, as our approach aimed to achieve, contributes to greater positive growth initiative among participants who had participated in the critical meeting and practices that followed the meeting relative to participants who had not attended.

Although this effect was observed using a fairly limited number of study participants, we nonetheless were encouraged by it. A thorough discussion on the experiences of the participants held during a session after the practice and final measurement corroborated the statistical findings. Participants indicated that they had a sense of greater control while dealing with their challenges, that they had a clearer sense of an appropriate course of action when confronted with a challenges, and that, as a result of the thematic session, they were better able to focus while being confronted with the challenge.

A side benefit of the procedure, which perhaps may ultimately prove more important than the effect of attendance on personal growth initiative, was that throughout the initiative, from reading the Quranic text, to jointly discussing challenges and formulating

actions to deal with the challenge, to being encouraged to engage with the challenge, to reflecting on the results, the used procedures were found to serve as a shared frame of reference, enabling dialog about very sensitive and personal matters. This is currently an underreported benefit of the ever expanding literature on mental contrasting and implementation intentions. Often, sharing thoughts and experiences can be a critical element in effective goal pursuit, whether it be social, health-related, or otherwise, and formulating challenges in terms of IF THEN rules may be a powerful elicitation tool to address difficult personal and social matters.

Notwithstanding these positive effects, we should stress that the reported results are only very preliminary. We reported on a fairly small sample. Also, we only reported the findings regarding one theme, i.e., from division to wholeness, and not regarding the other three. Furthermore, although we did informally observe increasing positivity regarding the initiative and the use of the mental contrasting and implementation intention methods, this may also be caused by an increased self-selection, with those with affinity with the procedures staying within the initiative and those without affinity dropping out. Regarding these matters, conducting more studies with different populations seems to be the only remedy.

STUDY 2: SECOND MEETING SERIES

A second study was conducted as part of a "discover your inner strength" series held at a Mosque in Rotterdam. This series was more concise than the one reported in Study 1. There were four sessions, with each of the sessions addressing a theme (i.e., "from division to wholeness," "from friction to harmony," "from negative perception to veracity," and "from doubt to courage"). The first session started with a general introduction of the meeting series, and the other three sessions included a 15-min opportunity at the beginning of the session for the participants to discuss their experiences while applying the IF THEN rules to the challenges they were facing. A week prior to each of the meetings, participants filled out a questionnaire with questions related to their personal growth initiative, their emotional stability, and their sociability. Our primary interest was in linear incremental trends for these dependent variables as the meetings progressed.

As a precautionary note for the data analysis, although our initial plan was to track the evolution of these scores during the meeting series, not all participants responded for all sessions to the call to fill out the questionnaires. Hence, the envisioned repeated-measures analyses could only be applied to a very limited set of participants, and we therefore based our analyses primarily on group-level comparison between sessions than individual-level comparison.

MATERIALS AND METHODS

Participants

Participants were 17 males and 31 females (age range: 15–54, *Mdn* = 29) who had signed up for the initiative as announced *via* the communication channels available to the Mosque where the sessions took place. Participants paid an attendance fee of 30 Euros for the entire meeting series.

Procedure

The procedures and materials were generally the same as used in Study 1. This time, there were four sessions, each addressing a theme ("from division to wholeness," "from friction to harmony," "from negative perception to veracity," and "from doubt to courage"). The sessions were scheduled approximately 4 weeks apart.

The first session started with a general introduction on the meeting series and the rationale behind it, including a brief description of the mental contrasting and implementation intentions method. The final session included a brief report on the research findings and a general group discussion concerning the merits of the meeting series. Otherwise, the four sessions had a similar protocol, whereby the imam introduced the specific theme of the session and narrated a relevant surah, after which participants were divided in groups of 4 to 6, encouraged to discuss challenges and ways to deal with the challenges using the surah, and to write IF THEN contingencies and report these to the entire group at the end of the session. There was a 15-min comfort break planned in each session occurring at variable times during the meetings.

For the first session on the theme "from division to wholeness," the imam discussed a Hadith of the Prophet Muhammad saying:

> Believers are like one body in their mutual love and mercy. When one part of a body is in bad health, the rest of the entire body joins it in restlessness and lack of sleep and is busy with its treatment. Likewise, Muslims should run to helping each other.

For the second thematic session on "from friction to harmony," the imam discussed surah Ale-Imran, verse number 159:

> And by the Mercy of Allah, you dealt with them gently. And had you been severe and harsh-hearted, they would have broken away from about you; so pass over (their faults), and ask (Allah's) Forgiveness for them; and consult them in the affairs. Then when you have taken a decision, put your trust in Allah, certainly, Allah loves those who put their trust (in Him).

For the third session on "from perception to veracity," the imam discussed surah AL-HUJURAAT, verse number 6:

> O you who believe! If a rebellious evil person comes to you with a news, verify it, lest you harm people in ignorance, and afterward you become regretful to what you have done.

For the fourth session concerning the theme "from doubt to courage," the imam discussed a Hadith of the Prophet Muhammad saying:

> A strong believer is better and is more lovable to Allah than a weak believer, and there is good in everyone (but) cherish that which gives you benefit (in the Hereafter) and seek help from Allah and do not lose heart, and if anything (in the form of trouble) comes to you, do not say: If I had not done that, it would not have happened so and so, but say: Allah did that what He had ordained to do and your "if" opens the (gate) for the Satan.

A week prior to each of the sessions, participants were approached *via* email, reminded about the upcoming session, and encouraged to fill out a digital questionnaire.

Materials

The digital questionnaire was virtually identical to the one used in Study 1. It asked about the names and gender of the participants and assured that at no point a connection would be made between the participant's name and the questionnaire scores. The questionnaires were the same as Study 1, i.e., the PGI questionnaire (PGI), and a 7-point Likert version of the SDQ that we analyzed in terms of emotional wellbeing and sociability dimension.

RESULTS

General Data Analytic Considerations

The main aim of the data analysis was to statistically establish incremental trends in PGI and emotional wellbeing and sociability, as a result of participating in the meeting series. We were expecting that participants would attend all meetings and fill out all questionnaires. However, this turned out to be too optimistic as some individuals did not attend all sessions, and not all individuals who attended the sessions had filled out the questionnaires. Instead of focusing exclusively on the limited set of individuals who did attend all sessions and who filled out all questionnaires, we decided to track the development of the dependent variables of interest on a group level by comparing mean scores between sessions. Unfortunately, only a very limited group of participants filled out the final questionnaire that was included prior to the last thematic session, and as a result we could only compare the scores for the pre-sessions baseline, the scores measured prior to the second session, and the scores measured prior to the third session.

Personal Growth Initiative

There were seven participants who had completed the PGI questionnaires for all 3 measurement periods. We first conducted a 3[Measurement: (1) Before introduction session vs (2) After the "division to wholeness" thematic session and practice vs (3) After the "friction to harmony" thematic session] repeated-measures ANOVA on the PGI scores of these seven participants, yielding an overall effect of $F(2, 5) = 1.96$, $p < 0.23$, and more relevant for present purposes, a marginally significant linear trend effect of $F(1, 6) = 3.67$, $p < 0.11$. Relevant means are displayed in **Figure 4**. From **Figure 4**, it can be inferred that attendance linearly increased self-reported PGI. We also conducted a 3(Measurement) between-subjects ANOVA with polynomial contrasts on PGI to investigate whether the observed within-subject effect among the seven participants could also be observed on a group level (now with n =31 at measurement 1, n = 28 at measurement 2, and n = 16 at measurement 3). We indeed observed a similar linear trend, $F(1, 72) = 3.26$, $p < 0.08$, with an overall effect of $F(2, 72) = 1.67$, $p < 0.20$. This linear between-groups effect reflects that, in correspondence with the pattern depicted in **Figure 4**, PGI increased as the meeting series progressed, with M = 106.94 and SD = 17.59 at measurement 1, M = 108.82 and SD = 15.13 at measurement 2, and M = 115.81 and SD = 13.93 at measurement 3. This finding corroborated the results reported in Study 1.

Emotional Wellbeing

We conducted similar analyses for the emotional wellbeing component of the SDQ. For the participants who completed all three measurements, a 3(Measurement) within-subjects ANOVA using polynomial contrasts showed an indication of a linear effect, $F(1, 6) = 4.11$, $p < 0.09$, with an overall effect of $F(2, 5) = 2.61$, $p < 0.17$. As can be seen in **Figure 5**, this effect indicates a tendency of the participants to report higher wellbeing as the meeting series progressed. However, using a between-groups ANOVA with a substantially higher number of respondents, this effect was no longer observed, with an overall F-value of $F(2, 72) = 0.25$, $p > 0.78$ and a linear effect of $F(1, 72) = 0.25$, $p > 0.61$. Given the inconsistency between the within- and between-subjects comparison, we are cautious to draw any conclusions regarding these emotional wellbeing findings.

Sociability

We also conducted a 3(Measurement) within-subjects ANOVA on the Sociability dimension of the SDQ, but failed to detect any significant differences, neither for the overall effect, $F(2, 5) = 0.26$, $p > 0.78$, nor for the linear trend, $F(1, 6) = 0$, ns. The between-groups comparison also failed to show indication of a difference, $F(2, 73) = 0.21$, $p > 0.81$, nor of a linear trend, $F(1, 73) = 0.04$, $p > 0.83$.

DISCUSSION

Study 2 provided us with the opportunity to evaluate the finding from Study 1 that participating in the initiative and engaging in mental contrasting and implementation intention increases one's perceived personal growth initiative. The findings of Study 2 tentatively confirmed this. During the meeting series of Study 2, we observed rising levels of PGI as the meeting series progressed. We are aware that these findings are tentative. First, the observed incremental trend as a result of prolonged meeting participation was only marginally significant. Secondly, the comparison was based on a small sample within-subject comparison and a less than ideal between-groups design rather than a within-participants repeated measurement, although some of the participants in the sample did participate in all the sessions, whereas others only participated in one or two sessions.

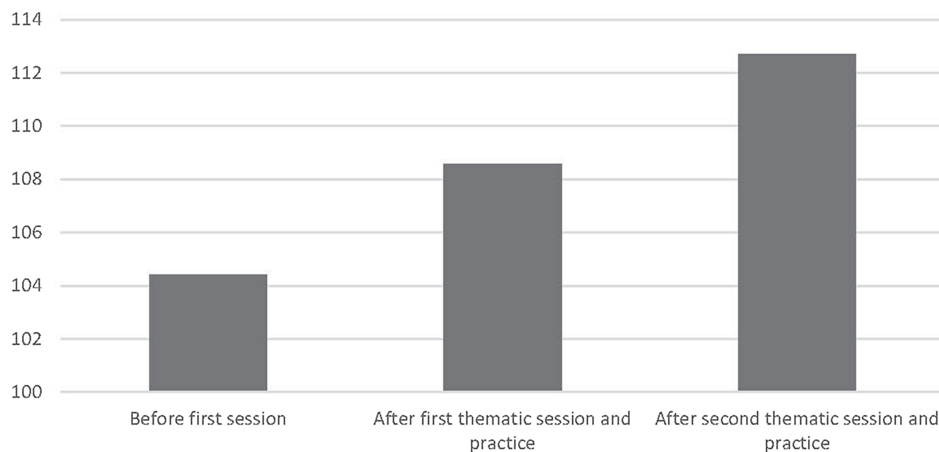

FIGURE 4 | Mean PGI in Study 2 as a function of repeated attendance of a thematic session and practice afterward. Higher cores indicate greater personal growth initiative. Scores could be from 22 (lowest) to 154 (highest).

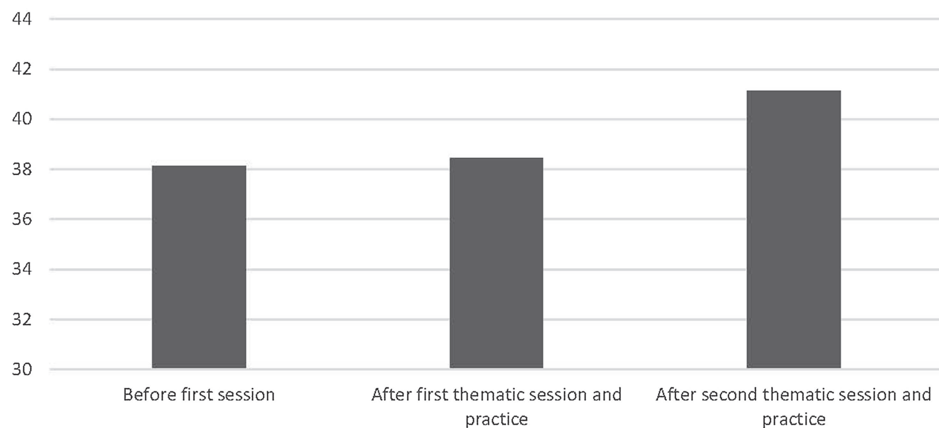

FIGURE 5 | Mean emotional wellbeing scores in Study 1 as a function of repeated attendance of a thematic session and practice afterward. Higher cores indicate greater emotional wellbeing. Scores could be from 8 (lowest) to 56 (highest).

However, we do find the presently reported findings noteworthy. Most importantly, the findings show a virtually identical pattern to the findings reported under Study 1, with statistics indicating that participating the meeting series contributed to a greater sense of personal growth initiative, but not to greater emotional wellbeing nor sociability. Of interest, the findings of Study 1 pertained solely to the effect of participating in a theme meeting related to "from division to wholeness," whereas the findings of Study 2 pertained to the effects of participating in two thematically different theme meetings, i.e., one of "from division to wholeness" and another on "from friction to harmony." We also find the findings of Study 2 noteworthy because in an evaluation that was part of the final session of the meeting, many of the participants pointed to exactly improved PGI as the main benefit of the sessions. One mentioned that he had a better sense of what to do when facing important challenges. Another mentioned she felt better prepared when confronted with a challenge. And yet another felt more in charge of the situation.

GENERAL DISCUSSION

This article presented findings from two initial attempts to develop a positive psychological approach to empower Muslims in the Netherland to address social challenges they are facing. The research comprising two studies showed that the combination of Quranic surahs and the psychological procedures of mental contrasting and implementations intentions contributes to a greater sense of PGI (and not to greater emotional wellbeing and sociability) that Muslims in the Netherlands are experiencing.

As this article is part of a special issue on radicalization, we emphasize that the presented initiative is significant in the context of P/CVE programs (Korn, 2016; Selim, 2016). Whereas many P/CVE programs are focused on providing alternative standards (Braddock and Horgan, 2016), here we show that affirmation of religious values may have positive consequences for adjustment and addressing challenges. The research was

not conducted nor presented to the participants as an attempt to counter or prevent radicalization. Nonetheless, we do believe the procedures and materials are of value in the context of P/CVE as they reveal a positive way to address challenges, such as division, friction, negative perceptions, and doubt, as well as lack of personal efficacy, challenges that are often considered to create an openness for radical messages (see, e.g., Kruglanski et al., 2019 for review).

We acknowledge the limitations of the present findings. First, the studies involved fairly small samples, and as participation was on voluntary basis, there may have been a selection bias in terms of the type of participants who signed up for the initiative, as well as the type of participants who decided to fill out the questionnaires. As a result, there is still much to learn regarding the reception of the initiative among groups that may initially be less open. Secondly, in both studies, the limited number of participants created less than optimal conditions for statistical analyses.

We also acknowledge that given the nature of the design, we are unable to draw firm conclusions regarding the efficacy of the current procedure relative to other procedures. Our claim has been that the presently advanced positive psychological community-based approach has merits relative to other interventions. Yet, in the absence of a parallel intervention that lacks the characteristics of our presently described intervention, we cannot empirically substantiate this claim regarding merit. Further, in the absence of another intervention, we cannot completely rule out that the presented results emanate from demand characteristics could be responsible for the observed increases in PGI with participants spending multiple sessions focused on meeting challenges becoming more likely to believe that their personal growth should be higher. There may also be the element of self-perception at work, as people who witness themselves repeatedly engaged in these exercises could come to believe that growth is occurring. However, although feasible, we do believe these issues of demand characteristics and self-perception are less likely to apply because it is not clear why these issues would apply specifically to our PGI measure, and not to our sociability nor our emotional wellbeing measure. In general, we recognize that the presently reported findings are therefore only an initial step in assessing the merits of the initiative for promoting personal growth initiative, and more broadly, for building resilience among Muslims to face the challenges they are facing in Western countries, such as the Netherlands.

Notwithstanding these shortcomings, we do think the initiative deserves broader consideration. One reason is the consistency in results, showing that participating in the series contributed to personal growth initiative. But there were other indications that the initiative made a positive contribution to the lives of the participants. Although privacy considerations brought us to refrain from formally recording the conversations about the experiences of the participants, these conversations did reveal that the method of mental contrasting and implementation intention had been instrumental in effectively addressing a number of the challenges that the participants had brought up. As already alluded to, multiple participants reported they had developed a better sense of the underlying reasons of the conflict they had experienced, they felt better prepared when facing the challenges, and they also felt supported that they could share and discuss their experiences.

In this latter sense, we believe we have identified a previously underreported merit of mental contrasting and implementation intention method, particularly when it is applied to sensitive issues (Gollwitzer and Sheeran, 2006; Oettingen and Gollwitzer, 2015). The program, especially when combined with an identify affirming narrative, creates a frame that enables a (in our experience) very constructive dialog about difficult matters (such as division, friction, negative perception, and doubt). The participants generally felt support simply by discussing their experiences with likeminded others. The dialog contributed to a shared reality and affirmed identity, while promoting efficacy in dealing with the challenges associated with being a Muslim in the Netherlands.

The potential to facilitate dialog may also be a particularly powerful asset in the context of the application of the described procedure in the context of P/CVE. As we have noticed at the onset of the article, current P/CVE practice all too often takes an oppositional stance to the communities that are subjected to the P/CVE programs, suggesting there are narratives to be countered and alternative values to be promoted. But such an approach focusses on threat and undermines trust and thereby the chances of success. Affirmation and dialog constitute essential elements for any P/CVE approach to have a truly constructive impact (Ellis and Abdi, 2017). In this sense, the presently described procedure may provide a radical new look on P/CVE practice.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Leiden University Faculty of Governance and Global Affairs. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

The authors share their contribution in idea development, research design, and research execution. Data analysis and reporting was done by MD and checked by JA. All authors contributed to the article and approved the submitted version.

FUNDING

This research was facilitated by funding granted to the MD from the European Union's Horizon 2020 research and innovation program under grant agreement no. 725349. The JA nor the participants received monetary reward for their contribution. The authors are indebted to Dr. Martijn de Koning for valuable reflections on an earlier version of the manuscript.

REFERENCES

Bandura, A. (1977). *Social Learning Theory*. United States: Prentice-Hall.

Baumeister, R. F., and Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychol. Bull.* 117, 497–529. doi: 10.1037/0033-2909.117.3.497

Bélanger, J. J., Schumpe, B. M., Nisa, C. F., and Moyano, M. (2021). When countermessaging backfires: the role of obsessive passion in psychological reactance. *Motivation Sci.* 7, 83–95. doi: 10.1037/mot0000206

Beller, J., and Kröger, C. (2020). Religiosity and perceived religious discrimination as predictors of support for suicide attacks among Muslim Americans. *Peace Conflict J. Peace Psychol.* doi: 10.1037/pac0000460

Braddock, K., and Horgan, J. (2016). Towards a guide for constructing and disseminating counternarratives to reduce support for terrorism. *Stud. Conflict Terrorism* 39, 381–404. doi: 10.1080/1057610X.2015.1116277

Choudhury, T. (2017). The radicalisation of citizenship deprivation. *Crit. Soc. Policy* 37, 225–244. doi: 10.1177/0261018316684507

Costin, V., and Vignoles, V. L. (2020). Meaning is about mattering: evaluating coherence, purpose, and existential mattering as precursors of meaning in life judgments. *J. Pers. Soc. Psychol.* 118, 864–884. doi: 10.1037/pspp0000225

De Koning, M. (2020). The racialization of danger: patterns and ambiguities in the relation between Islam, security and secularism in the Netherlands. *Patterns Prejudice* 54, 123–135. doi: 10.1080/0031322X.2019.1705011

Department of Homeland Security (2020). What is CVE? Available at: https://www.dhs.gov/cve/what-is-cve (Accessed June 10, 2020).

Duckworth, A. L., and Seligman, M. E. P. (2017). The science and practice of self-control. *Perspect. Psychol. Sci.* 12, 715–718. doi: 10.1177/1745691617690880

Ellis, B. H., and Abdi, S. (2017). Building community resilience to violent extremism through genuine partnerships. *Am. Psychol.* 72, 289–300. doi: 10.1037/amp0000065

Feddes, A. R., Huijzer, A., van Ooijen, I., and Doosje, B. (2019). Fortress of democracy: engaging youngsters in democracy results in more support for the political system. *Peace Conflict J. Peace Psychol.* 25, 158–164. doi: 10.1037/pac0000380

Feddes, A. R., Mann, L., and Doosje, B. (2015). Increasing self-esteem and empathy to prevent violent radicalization: a longitudinal quantitative evaluation of a resilience training focused on adolescents with a dual identity. *J. Appl. Soc. Psychol.* 45, 400–411. doi: 10.1111/jasp.12307

Ferguson, K. (2016). Countering violent extremism through media and communication strategies: a review of the evidence. Available at: http://www.paccsresearch.org.uk/wp-content/uploads/2016/03/Countering-Violent-Extremism-Through-Media-and-Communication-Strategies-.pdf (Accessed June 6, 2021).

Frankl, V. (1964). Man's Search for Meaning. An Introduction to Logotherapy (Revised and enlarged edition). London: Hodder and Stoughton.

Gollwitzer, P., and Sheeran, P. (2006). Implementation intentions and goal achievement: a meta-analysis of effects and processes. *First Publ. Adv. Exp. Social Psychol.* 38, 69–119. doi: 10.1016/S0065-2601(06)38002-1

Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *J. Am. Acad. Child Adolesc. Psychiatry* 40, 1337–1345. doi: 10.1097/00004583-200111000-00015

Greenberg, J., Pyszczynski, T., and Solomon, S. (1986). "The causes and consequences of the need for self-esteem: a terror management theory," in *Public Self and Private Self*. ed. R. F. Baumeister (New York: Springer-Verlag), 189–212.

Kappes, A., and Oettingen, G. (2014). The emergence of goal pursuit: mental contrasting connects future and reality. *J. Exp. Soc. Psychol.* 54, 25–39. doi: 10.1016/j.jesp.2014.03.014

Korn, J. (2016). European CVE strategies from a practitioner's perspective. *Ann. Am. Acad. Polit. Social Sci.* 668, 180–197. doi: 10.1177/0002716216671888

Kruglanski, A. W., Bélanger, J. J., and Gunaratna, R. (2019). *The Three Pillars of Radicalization: Needs, Narratives, and Networks*. United Kingdom: Oxford University Press.

Larsen, J. F. (2020). Talking about radicalization. *Nordic J. Criminol.* 21, 49–66. doi: 10.1080/2578983X.2019.1685805

Malthaner, S. (2014). Contextualizing radicalization: the emergence of the "Sauerland-group" from radical networks and the Salafist movement. *Stud. Conflict Terrorism* 37, 638–653. doi: 10.1080/1057610X.2014.921767

Miconi, D., Oulhote, Y., Hassan, G., and Rousseau, C. (2020). Sympathy for violent radicalization among college students in Quebec (Canada): the protective role of a positive future orientation. *Psychol. Violence* 10, 344–354. doi: 10.1037/vio0000278

Oettingen, G., and Gollwitzer, P. M. (2015). *Self-Regulation in Adolescence* (The Jacobs Foundation series on adolescence 288568745). New York, NY: Cambridge University Press, 3–29.

Ozer, S., and Bertelsen, P. (2019). Countering radicalization: an empirical examination from a life psychological perspective. *Peace Conflict* 25:211. doi: 10.1037/pac0000394

Paloutzian, R. F. (1981). Purpose in life and value changes following conversion. *J. Pers. Soc. Psychol.* 41, 1153–1160. doi: 10.1037/0022-3514.41.6.1153

Ragazzi, F. (2017). Countering terrorism and radicalisation: securitising social policy? *Crit. Soc. Policy* 37, 163–179. doi: 10.1177/0261018316683472

Rashid, N. (2014). Giving the silent majority a stronger voice? Initiatives to empower Muslim women as part of the UK's 'war on terror'. *Ethn. Racial Stud.* 37, 589–604. doi: 10.1080/01419870.2013.816759

Robitschek, C. (1998). Personal growth initiative: the construct and its measure. *Meas. Eval. Couns. Dev.* 30, 183–198. doi: 10.1080/07481756.1998.12068941

Sarma, K. M. (2017). Risk assessment and the prevention of radicalization from nonviolence into terrorism. *Am. Psychol.* 72, 278–288. doi: 10.1037/amp0000121

Seligman, M. E. P. (2019). Positive psychology: a personal history. *Annu. Rev. Clin. Psychol.* 15, 1–23. doi: 10.1146/annurev-clinpsy-050718-095653

Selim, G. (2016). Approaches for countering violent extremism at home and abroad. *Ann. Am. Acad. Polit. Social Sci.* 668, 94–101. doi: 10.1177/0002716216672866

Silverman, T. (2017). UK foreign fighters to Syria and Iraq: the need for a real community engagment approach. *Stud. Conflict Terrorism* 40, 1091–1107. doi: 10.1080/1057610X.2016.1253991

Spalek, B., and Weeks, D. (2017). The role of communities in counterterrorism: analyzing policy and exploring psychotherapeutic approaches within community settings. *Stud. Conflict Terrorism* 40, 991–1003. doi: 10.1080/1057610X.2016.1253985

Stanley, T., Guru, S., and Gupta, A. (2018). Working with PREVENT: social work options for cases of 'radicalisation risk'. *Pract. Social Work Action* 30, 131–146. doi: 10.1080/09503153.2017.1414176

Weigold, I. K., Weigold, A., Russell, E. J., Wolfe, G. L., Prowell, J. L., and Martin-Wagar, C. A. (2020). Personal growth initiative and mental health: a meta-analysis. *J. Couns. Dev.* 98, 376–390. doi: 10.1002/jcad.12340

Wiktorowicz, Q. (2006). Anatomy of the salafi movement. *Stud. Conflict Terrorism* 29, 207–239. doi: 10.1080/10576100500497004

Winter, D. A., and Muhanna-Matar, A. (2020). Cycles of construing in radicalization and deradicalization: a study of Salafist Muslims. *J. Constr. Psychol.* 33, 58–88. doi: 10.1080/10720537.2018.1536904

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2021 Dechesne and Ahajjaj. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Advantages of publishing in Frontiers

OPEN ACCESS
Articles are free to read for greatest visibility and readership

FAST PUBLICATION
Around 90 days from submission to decision

HIGH QUALITY PEER-REVIEW
Rigorous, collaborative, and constructive peer-review

TRANSPARENT PEER-REVIEW
Editors and reviewers acknowledged by name on published articles

Frontiers
Avenue du Tribunal-Fédéral 34
1005 Lausanne | Switzerland

Visit us: www.frontiersin.org
Contact us: frontiersin.org/about/contact

REPRODUCIBILITY OF RESEARCH
Support open data and methods to enhance research reproducibility

DIGITAL PUBLISHING
Articles designed for optimal readership across devices

FOLLOW US
@frontiersin

IMPACT METRICS
Advanced article metrics track visibility across digital media

EXTENSIVE PROMOTION
Marketing and promotion of impactful research

LOOP RESEARCH NETWORK
Our network increases your article's readership