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Comparing the Different Behavioral Outcomes of Extremism: A Comparison of Violent and Non-Violent Extremists, Acting Alone or as Part of a Group

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ABSTRACT



Presented here is an exploratory study that compared four kinds of extremists (violent lone, nonviolent lone, violent group member, and nonviolent group member). Thematic analysis of 40 case studies identified five key themes and a number of subthemes that comprised a range of underlying variables. Comparisons of the four groups showed that in many ways violent and nonviolent extremists acting alone or as part of a group do not differ. However there were some variables that distinguished between groups. Findings are discussed in terms of implications for countering and preventing violent extremism.

ARTICLE HISTORY

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Introduction

Long before the 9/11 attacks in the USA and the fast growth of support for the Islamic State of Iraq and Syria (ISIS), research has sought to understand why, when and how people become radicalized and form or join groups in order to conduct acts of terrorism. However, those responsible for preventing or disrupting such acts also need to understand and recognize the threat posed by lone (or very small numbers of) individuals known to hold and seemingly be motivated by extremist views, who are not operating as part of a wider group or under any formal organizational structure. Some groups and organizations such as Al-Qaeda (AQ) and movements such as the Far Right have called for a ‘leaderless resistance’; aiming to inspire individuals to conduct acts of violence within their own communities without direction from traditional command and control means. AQ and ISIS have portrayed terrorism as an entrepreneurial arena where anyone can take part, and have called for their supporters to conduct attacks without any official direction or support. For example, ‘... an emerging strategy for AQ was “to empower and motivate individuals to commit acts of violence completely outside any

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terrorist chain of command”¹. This has led, at least in part, to small groups doing just this, as well as individuals conducting acts of terrorism alone.

There are several fairly recent high-profile examples of lone actor attacks that demonstrate this. First, in 2011 Anders Breivik detonated a bomb and went on a shooting spree in Norway, killing 77 members of the public, many of these being teenage children. Breivik was reported to be acting on his extreme right-wing views and was apparently operating alone.¹ More recently, in 2017 in the U.K. alone there were three significant lone actor terrorist attacks – on Westminster Bridge, at the Manchester arena, and in Finsbury Park. Finally, we note the devastating attack on two mosques in New Zealand in 2019 that led to the killing of 50 innocent individuals. Whilst lone actor violence is not new, these examples demonstrate that the threat is current and can be high in impact, for example in terms of numbers of deaths and casualties caused, economic and social effects, and the media attention they attract.

The current study compared case studies of (violent and nonviolent) group-based and lone actor extremists, in order to identify similarities and differences between these. This contributes to the recent surge of empirical research that seeks to understand lone actor terrorism;² which in turn builds on research that focuses on terrorists who operate as part of a group. Previously, the terrorism literature tended to describe the process of radicalization and terrorism as social phenomena, with terrorist attacks generally committed by groups.³ This showed that different mechanisms may be at work for different individuals;⁴ therefore there are multiple and diverse pathways that lead to extremist-related actions. These can be determined by broad grievances (‘push’ factors), more specific ‘pull’ factors (that attract individuals to terrorism), and ‘protective’ factors that lead to some people being more vulnerable or receptive to push or pull factors.⁵ This is also true of lone actor terrorists; however, more research is needed to understand the similarities and differences between different types of terrorist actors. We need to understand how, when and why some choose to act alone while others work as part of a group, and how, when and why some choose to conduct acts of violence whilst others do not.

Theoretically, we would expect lone and group member extremists to be driven by different factors. For example, group membership can involve peer pressure and/or lead to a number of psychological rewards. Therefore group member extremists may be motivated to conform and impress other members in order to be accepted and to maintain their membership and status within the group. In contrast, lone actors might choose to conduct a violent attack because they perceive groups to be insufficiently extreme, and therefore they feel more of a personal responsibility to act in order to achieve extremist goals. In terms of violent versus nonviolent extremists, we should also expect differences in the factors that underlie their behavior. For example, extremists may be violent because, for different reasons, they have the capability for violence, whilst nonviolent extremists may opt for nonviolent action because they are operating in an environment that constrains their options for developing a capability for violence. Therefore terrorists are a heterogeneous group that need to be investigated as such.⁶

¹Despite Breivik’s insistence that he was in contact with at least six other radicals, the Commanding Police Chief reported that there was no evidence to suggest these contacts actually existed.

Recent research has compared different types of extremism. For example, an analysis of AQ identified five kinds of members (active participants, aspirants, facilitators, trained aspirants, and ideologues), varying in terms of how operationally active they are.⁷ Others have compared violence in ideological and nonideological groups,⁸ lone versus group-based terrorists,⁹ and violent versus nonviolent extremists.¹⁰ Knight, Woodward and Lancaster (2017) identified some factors that distinguished between those with similarly extremist views that chose to act violently versus those who did not.¹¹ The present study builds on this current understanding of terrorism by investigating a number of case studies to further investigate the similarities and differences between violent and nonviolent extremists, and also between those who acted as part of a group and those who acted alone. Understanding when the mechanisms underlying different behavioral outcomes (e.g. to act violently or not, alone or as part of a group) is important to better understand, predict, prevent and disrupt their actions. Empirical studies of this nature are relatively rare, mainly due to methodological constraints meaning that access to sufficient, appropriate, detailed data is difficult. The goal was to generate new understanding of these different types of extremists in order to assist Counter Terrorism (CT) and Counter Violent Extremism (CVE) practitioners responsible for the prevention, detection, assessment and/or treatment of these different kinds of individuals to do so using an evidenced based approach.

Methods

Sample

The aim of this exploratory study² is to understand how certain types of extremists are similar and how they are different, in terms of variables underlying different behavioral outcomes (to act violently or not, alone or as part of a group). The sample comprised of 40 detailed case studies of individuals to compare four groups: violent lone extremists (VLEs, $n = 9$), violent group-based extremists (VGEs, $n = 15$), nonviolent lone extremists (NVLEs, $n = 9$) and nonviolent group-based extremists (NVGEs, $n = 7$). Both Islamic and right-wing extremists (XRW) were included.³

Defining and categorizing case studies

Data were gathered on individuals who had been convicted of a criminal offense (violent or nonviolent) in the U.K. since 2001, where there was evidence that this was in some way motivated by extremism (see 'Case Selection and case study development' later for further details). The term 'extremist' was used to mean those holding attitudes and beliefs that did not fit with mainstream opinion regarding political, religious and/or ideological issues. It is recognized that defining extremism and categorizing individuals can be complex and, at times, controversial. The current study took a pragmatic

²Referred to as 'exploratory due to the small sample size and variance in missing data for some cases and for some underlying variables. Gathering sufficient information to make inclusion and analysis of data meaningful is a common challenge for research in this area. However, limitations regarding the data do not preclude analysis of qualitative information to highlight key trends and to develop meaningful insights.

³This was deemed appropriate since the majority of terrorist prisoners in the UK fall in to one of these two groups.

approach to select individuals, including individuals who had been identified and described as extremist by writers in this field, including academics and CT experts and practitioners, rather than relying on or using newspaper/mainstream media accounts.

The sample comprised those who were integrated within and operated as part of an extremist group, as well as those who operated alone. Group members included individuals who had planned, prepared and/or conducted an extremist-related (violent or non-violent) action as part of an extremist group. To be categorized as a lone extremist, the individual must have planned, or have been planning, to execute the plot alone. That is, they may be linked with others (closely or otherwise, including online networks), but not governed at a tactical level. They may have been previously part of a group but then left and proceeded to act outside of a formal group structure. Others included those who may have been trained and equipped by a group (who may also have selected targets) but conducted acts autonomously. One isolated dyad⁴ was also included.

In terms of categorizing individuals as violent or nonviolent, violence was defined as any act which constituted, or any potential act which, if carried out would constitute, murder, attempted murder, manslaughter, culpable homicide, assault, and/or real injury to another, and/or cause serious and significant structural damage. An individual was categorized as violent if they had actually conducted physical acts of violence, or knowingly and actively facilitated violence conducted by others (e.g. by providing explosives and/or weapons). We decided to categorize as 'violent' those individuals who intentionally and actively facilitated an act of violence (e.g. made an Improvised Explosive Device - IED), but did not actually conduct the violent act (e.g. detonate an IED). This is because it did not seem sensible to categorize an individual such as a bomb maker as 'nonviolent'. Those categorized as nonviolent had conducted actions such as sending racist hate mail and sharing violent extremist literature.

Case selection and case study development

Case Study Research (CSR) is a rigorous approach that can uncover small but concrete factors that may be key to understanding a phenomenon.¹² Research involving the analysis of specific cases can provide a depth of understanding of the intricacies and relationships that accurately reflects reality.¹³ Each extremist individual is referred to here as a 'case'. Strategic selection was applied to identify cases that represented a range of exemplars from the four groups to confirm or challenge propositions and hypotheses.¹⁴ Thus, cases that represented the four groups of interest were chosen, ensuring 'diversity across contexts':¹⁵ Cases that provided opportunities to examine and understand similarities and differences between VLEs, VGEs, NVLEs and NVGEs.

An initial pool of cases was developed comprising the names of individual extremists identified via previously published research in this area, government reports and subject matter expert (SME) advice on individuals who might be included for analysis. Cases that clearly fitted into one of the four categories were developed further using open source data in order to gather as much information as possible on the individuals. Information was cross-checked where possible; three researchers independently gathered

⁴A dyad is a pair of individuals who operated independently from a group in terms of planning, preparation and so on, without direct input from a wider network. Previous lone actor research has also included dyads in their analyses.

and collated data and then collaborated to identify overlaps, gaps in understanding and conflicting information. Where possible, triangulation allowed verification of details, whilst where evidence was lacking (e.g. only found in one report and therefore could not be verified) this was removed from the case study. This is because it is more important to provide a valid framework based on solid verified information than create a framework based on more information but reduced validity.¹⁶

Case study development ended when no new cases fitting our definitions and inclusion criteria, and no further information regarding each individual case, could be found.⁵ Three researchers were then required to independently read each case study and assign it to one of the four groups of extremists. The lead researcher then examined these and excluded cases when the three researchers were unable to agree on how to categorize a case; and also when the quantity⁶ and quality⁷ of information for a case was insubstantial. Initially, a total of 56 case studies were developed. However, during the categorization stage of the study 16 of these were excluded, resulting in 40 case studies to be analyzed in full.⁸

Findings are based on the analysis of these 40 case studies representing extremists who were operating and planning to conduct/had conducted an offense in the U.K., post 2001. Violent cases mainly included attacks (or plots that were foiled via external intervention) that attempted and intended to kill others, whereas nonviolent cases included possession of, writing, distributing and/or disseminating extremist or terrorist literature, sending racist 'hate mail', and fund raising to support terrorist activities.

Analytical approach

In the present study, thematic analysis was conducted to identify "repeated patterns of meaning" across the set of data,¹⁷ and content analysis was applied to analyze multiple case studies in order to compare the four groups of extremists. This study applied a multiple case study approach, whereby collections of case studies (representing the four groups of extremists) were categorized, compared and contrasted. Owing to the nature of this exploratory research, formal hypotheses were not made a priori; instead, researchers assessed the data from a bottom-up approach, allowing themes and

⁵This was the case for VLEs, NVLEs, and NVGEs. However, there were many more VGE cases that were available for inclusion, but we made a pragmatic decision to stop developing case studies when we had reached an n of 15 for this group.

⁶We did not have a set criterion regarding the quantity of information required. Decisions regarding whether there was a sufficient amount of data were made by the lead researchers and were based on the information found during case study development. Cases were included if the information found appeared to provide a detailed picture of the individual in terms of who they were, their offence(s), and factors that were likely to relate to their actions.

⁷'Quality' referred to whether key information could be verified via more than one source. Information that was reported via only one source was deemed of insufficient quality and therefore excluded.

⁸Categorization of case studies was an iterative process. Researchers were required to allocate 56 case studies into one of the four categories, according to pre-defined definitions for each of these. The initial attempt was unsuccessful, and there were a number of disagreements between the researchers. It was clear that the definitions initially developed (for violent/ non-violent, and lone/ group member) did not adequately distinguish between categories, leading to a lack of agreement regarding how a number of the case studies should be categorized. Therefore definitions were refined and researchers repeated the categorization task. Whilst there was agreement for the majority of cases, sixteen cases could not be categorized, mainly because lack of detailed information meant that it was not clear whether individuals were violent or non-violent and/ or lone extremists or group members. These were excluded from the analyses, as recommended by Stake (2006), who suggested that inclusion/ exclusion is determined by the degree and the extent that cases are perceived to 'fit', with regards to the topic(s) of interest.

understanding to emerge and then related these back to the literature to check for consistency or contrast. Analyses aimed to (a) identify themes, subthemes and variables that emerged from analysis of the data as a whole (i.e. key factors underlying extremism in general⁹), and then (b) compare the different types of extremists regarding these factors in order to understand similarities and differences between groups. In preparation for analysis, data for each case study were double-spaced, lines were numbered and wide margins created. This allowed for thoughts and comments to be recorded in margins, and systematic notes were also made in a separate notebook. These provide a paper trail and evidence for codes, themes and patterns that emerged and allowed researchers to compare notes and agree on coding schemes.

The entire dataset were first examined via thematic analysis to identify characteristics and features of all four groups. That is, we did not distinguish cases by the subgroups to which they belonged, but read all case studies in-depth several times, in order to identify characteristics and themes that were shared across the subgroups.

The following stages were followed:

Stage 1: Read through to familiarize self with cases, individually and then as a group.
 Stage 2: Initial coding and made notes regarding themes, sub-themes, connections and patterns. The reading of the entire dataset led the reader to identify occurrences that were reported regularly throughout. These were grouped into ‘themes’, ‘sub-themes’ and ‘underlying variables’. ‘Themes’ enabled an overarching, general way to categorize differences in data at the highest level. ‘Sub-themes’ were those that ‘sat under’ each main theme, and these comprised ‘underlying variables’ (see [Figure 1](#)). So, for example, through reading the data, certain factors were observed to occur

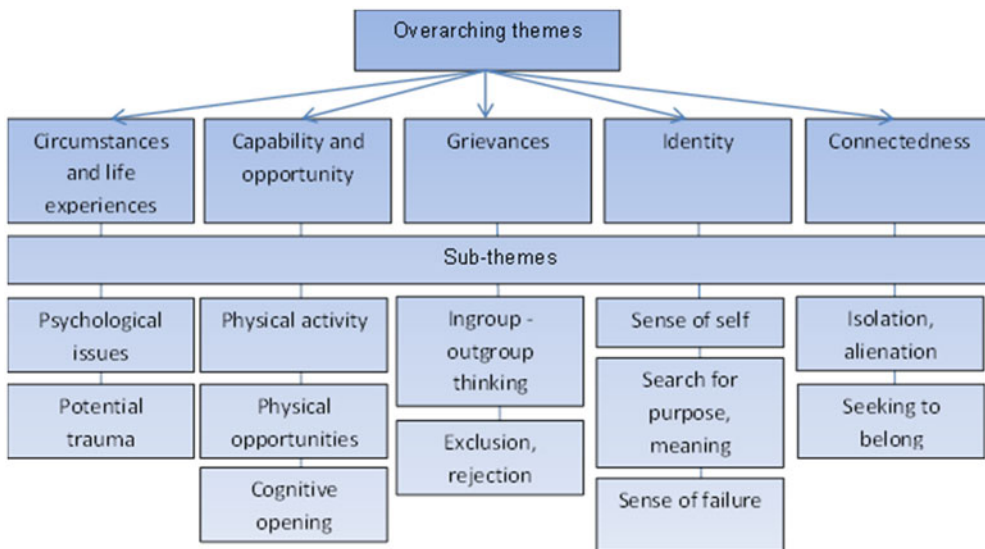


Figure 1. Overarching themes and subthemes underlying extremism.

⁹A bottom-up approach was taken in that we did not have a priori themes, rather we allowed themes to emerge from the data.

regularly, such as a reference to a person's psychological state. A reference to a specific psychological state (e.g. they were described by others as 'obsessional') was noted, and this was categorized as an 'underlying variable', which sat under the sub-theme entitled 'psychological issues', which in turn sat under the main theme entitled 'Circumstances and life experiences'.

The continuous re-reading of text enables the reader to identify commonalities and differences within the text, and it is the commonalities that lead to the formation of themes and sub-themes, and the differences that lead to an understanding of the patterns and relationships between these and their meaning.

Stage 3: Color code to clarify themes, sub-themes, and underlying variables, and note patterns and reemerging relationships.

Stage 4: First write-up of overarching themes, and initial understanding of similarities and differences between groups.

Stage 5: Write-up of the analysis and observations so far, clarify and verify ideas, further explore themes, sub-themes and underlying variables, and nuances, patterns and relationships between these.

Stage 6: Clearly label and describe all themes, sub-themes and underlying variables in order to examine each case for evidence – to compare between groups (see below).

Throughout the analysis researchers were required to ensure that themes and subthemes are evidence-based (i.e. the data demonstrates regular commonalities and differences).

When the thematic analysis was complete and themes, subthemes and underlying variables were established, each case was examined for evidence of each of the underlying variables. When there was evidence, the case study was given a score of '1' (i.e. that variable was evident for that individual) and a score of '0' if not. Findings are presented below, to demonstrate the number of cases in each group for which there was evidence for each of the underlying variables, in order to compare and identify similarities and differences between the four kinds of extremists.

Results and Discussion

Descriptives

Details regarding the case studies and basic descriptive information are reported in Tables 1 and 2 below.

In terms of the length of case studies, some groups clearly yielded more information than others, with the VLE group producing the most detailed cases, and the NVGE producing the least. The word count of all 40 case studies was 68,750 (i.e. the total dataset) with a range of between 428-5257 words.¹⁰ Data available enabled a higher number of VGEs to be included compared to other groups, and the VLE case studies generated considerably more information than the other groups.¹¹ The smallest group comprised

¹⁰Cases varied in length within all groups.

¹¹This indicates a possible reporting bias, mentioned later in the Discussion section.

Table 1. Basic descriptives for each group of extremists.

	VLE	VGE	NVLE	NVGE	TOTAL
Number of case studies	9	15	9	7	N = 40
Word count for case studies (Mean; Standard Deviation; range)	M = 2490.78 SD = 1516.65 (836-5257)	M = 1452.53 SD = 648.53 (616-2575)	M = 1395.89 SD = 1153.82 (428-4166)	M = 962.14 SD = 371.77 (567-1684)	M = 1587.57 SD = 1091.39
Type of extremism (Islamic; XRW)	IS = 4 XRW = 5	IS = 15 XRW = 0	IS = 7 XRW = 2	IS = 7 XRW = 0	IS = 33 XRW = 7
Age (Mean; Standard Deviation)	M = 28.22 SD = 9.47	M = 25.6 SD = 5.42	M = 34.11 SD = 14.97	M = 28.42 SD = 3.95	M = 28.6 SD = 9.37
Gender (Male; Female)	M = 8 F = 1	M = 15 F = 0	M = 6 F = 3	M = 7 F = 0	M = 36 F = 4

Table 2. Religion, race and citizenship across groups of extremists (figures represent % of cases).

		VLE (n = 9)	VGE (n = 15)	NVLE (n = 9)	NVGE (n = 7)
Religion	Muslim	22.2	80	77.8	100
	Muslim convert	22.2	20	0	0
	Unknown/ none	55.6	0	22.2	0
Race	White British	66.7	0	11.1	0
	Mixed race	11.1	6.7	0	0
	British Asian	22.2	46.6	55.6	57.1
	African	0	40	22.2	42.9
	(Non-British) Asian	0	6.7	0	0
	Unknown	0	0	22.2	0
Citizenship	British National	100	0	22.2	0
	Immigrant, legal British citizenship	0	60	22.2	28.6
	Second generation immigrant	0	33.3	55.6	28.6
	Illegal immigrant	0	0	0	28.6
	Born in UK, grew up in Pakistan	0	6.7	0	0
Unknown	0	0	0	14.2	

NVGEs; cases studies were more difficult to identify and develop for these types of individuals because they did not seem to attract as much interest or attention from those reporting on such cases.

Most cases related to Islamic extremism, and the XRW were represented mostly in the VLE group.¹² The mean age was between 25-34 years, with VGEs being the youngest and NVLEs being the oldest. The majority of cases were male although the NVLE group comprised 3 (out of 9) females. It was interesting to note that none of the XRW were female and there were no XRW individuals in the groups (VGE and NVGE).

Groups also varied regarding religion, race and citizenship (see Table 2).

Table 2 shows that religion differed across groups: group members (violent and non-violent) were all Muslim, whilst lone extremists were a mix of Muslim and others for whom had no religion or religion was unknown (most likely because these were XRW). In terms of race, again the picture was mixed, with the VLE subgroup standing out due the prevalence of White British cases, group members (violent and nonviolent) comprising mainly British Asian and African, and NVLEs being more varied. Finally, in terms of citizenship, the groups varied dramatically, with VLEs comprising all British

¹²A notable proportion of the lone extremists were XRW rather than Islamic extremists: This is similar to other studies that have shown that lone actor terrorism does seem to appeal to the XRW (compared to group extremists – more of whom tend to be religiously inspired).

Table 3. Circumstances and life experiences across groups of extremists (n and %).

Subthemes	Underlying variables	VLE	VGE	NVLE	NVGE
Psychological issues	Asperger syndrome	1 (11.1%)	0	0	0
	Depression	3 (33.3%)	0	2 (22.2%)	0
	Suicidal	2 (22.2%)	0	1 (11.1%)	0
	Personality disorder	1 (11.1%)	0	1 (11.1%)	0
	Schizophrenic	1 (11.1%)	0	0	0
	Fantasia/ narcissism	3 (33.3%)	0	3 (33.3%)	0
	Obsessive	7 (77.8%)	11 (73.3%)	5 (55.6%)	3 (42.9%)
	Paranoia	2 (22.2%)	0	0	0
	Grandiosity	2 (22.2%)	0	1 (11.1%)	0
	Irrational	5 (55.6%)	0	3 (33.3%)	0
	Delusional	4 (44.4%)	0	3 (33.3%)	0
	Unspecified mental health issue(s)	3 (33.3%)	0	5 (55.6%)	0
	Substance abuse	4 (44.4%)	1 (6.7%)	0	0
	Potential trauma	Refugee	0	1 (6.7%)	0
Asylum seeker		0	3 (28%)	0	2 (28.6%)
Loss of significant other		4 (44.4%)	7 (46.7%)	4 (44.4%)	4 (57.1%)
Exposure to extreme violence (including the internet)		7 (77.8%)	14 (93.3%)	3 (33.3%)	6 (85.7%)

Nationals, VGEs comprising mainly first and second generation immigrants, and both nonviolent subgroups demonstrating more variance.

Emergent themes and between-groups comparisons

Due to the small sample size, no inferential statistics were conducted. However, case study materials provided both broad and in-depth quantitative and qualitative data, which enabled comparison of the four different types of extremists. Thematic analysis identified five key inter-related themes: (i) ‘Circumstances and life experiences’; (ii) ‘Capability and opportunity’; (iii) ‘Grievances’; (iv) ‘Identity’; and (v) ‘Connectedness’ (see [Figure 1](#)¹³). Each of these comprised a number of subthemes and underlying variables. Findings presented below include descriptive statistics to understand where the largest between-groups differences were found. In the text below the results are described and also explored in relation to previous research in order to make sense of the findings and to interpret their meaning.

Theme 1: Circumstances and life experiences

The first theme related to the circumstances and life experiences of individuals and comprised two subthemes: (i) ‘psychological issues’,¹⁴ such as suffering from mental illness, or being described as ‘obsessional’; and (ii) potentially traumatic events such as being a refugee, or experiencing the loss (death or long term separation from) of a parent and/or sibling (in some cases it was more than one of these). [Table 3](#) presents how many (number and percentage of) each group demonstrated evidence for each of the

¹³Note that the hierarchical nature of [Figure 1](#) is for illustration purposes only, and does not infer ‘nested’ sub themes (i.e., a subtheme below another is not a sub-theme of the one above).

¹⁴The sub-theme entitled ‘Psychological issues’ captured those variables that could be categorized under this broad heading. As shown in [Table 3](#), these included a range of mental illnesses and disorders, syndromes and conditions, as well as descriptions such as an individual being ‘obsessive’, ‘irrational’ or ‘delusional’. As with all of the data included in the analyses, when reports of these were from only one single source, this information was excluded.

underlying variables. For example, this table shows that 11.1% (or 1 out of 9) VLEs showed evidence of Asperger syndrome (therefore the remaining 88.9% did not), whilst none of the other groups did.

The number of incidences of each psychological issue was consistently low, with being 'obsessive' scoring highest – and evidenced by all groups to different degrees. Between-groups comparisons of underlying variables revealed some interesting findings. The first subtheme was based on evidence whereby individuals had been described as having some kind of mental issue that we categorized as a 'psychological issue'. Cases where individuals have received a formal diagnosis for a mental illness were rare, however, there were a number of instances within the dataset when individuals were said to have been described by others as, for example, 'obsessional', 'depressed', 'paranoid' and 'irrational'. These cases formed the basis for the 'psychological issues' subtheme, and comparisons revealed some marked differences between groups. Most notable was that more VLEs were described as having some kind of psychological issue. However, there a general lack of evidence that VGEs, NVGEs and NVLEs were likely to have some kind of psychological issue. This is in line with the literature on this topic which does point toward more lone extremists having mental health issues compared to group members,¹⁸ which was reflected in our findings. There were also reports of individuals being 'irrational', 'delusional' and having unspecified mental health issues for more of the lone individuals (violent and nonviolent) compared to group member extremists.

In terms of sources of potential trauma, around half of individuals in all groups had experienced the loss of a significant other, and more of the VLEs, VGEs and NVGEs had been exposed to extremely violent, potentially traumatic materials (mainly via the internet), whereas NVLEs had not.

The current study indicates that whilst, in general, numbers of cases evidencing potentially traumatic events were higher for (both lone and group) violent extremists, far fewer VGEs were reported as having psychological issues. It may be that group membership provides resilience from suffering from psychological issues due to the terrorist lifestyle, for example, by having others to connect to and share experiences, and from feelings of belonging and identity. Alternatively, it may be that individuals who have mental health problems already are refused membership or rejected by extremist groups, and individuals are 'filtered out' by groups not wanting individuals with psychological problems in their group.¹⁹ Indeed, data here (see Theme 3: 'Grievances') showed that more VLEs had been rejected by certain groups and/or significant other, a school or employer.

Theme 2: Capability and opportunity

This theme comprises three subthemes: (i) physical activities likely to facilitate radicalization and extremist-related action, such as attending training camps and traveling abroad to train and/or meet with influential others, and also when individuals were reported as being passionate about participating in (team) sports; (ii) opportunities for (extremist-related) action, such as an open operating environment (where there is a lack

Table 4. Opportunity and capability across groups of extremists (figures represent n and %).

Subthemes	Underlying variables	VLE	VGE	NVLE	NVGE
Physical activity	Training	0	11 (73.3%)	0	0
	Travel abroad	0	11 (73.3%)	1 (11.1%)	1 (11.1%)
	Sport	0	13 (86.7%)	0	2 (28.6%)
Physical opportunities	Operating environment	8 (88.9%)	14 (93.3%)	2 (22.2%)	5 (71.4%)
	Physical opening (time on hands)	5 (55.6%)	13 (86.7%)	9 (100%)	5 (71.4%)
Personal crisis	Catalyst/ crisis	5 (55.6%)	10 (66.7%)	3 (33.3%)	2 (28.6%)
	Perceived personal responsibility to act	7 (77.8%)	14 (93.3%)	1 (11.1%)	1 (14.3%)
	Under-achievement	6 (66.7%)	11 (73.3%)	3 (33.3%)	2 (28.6%)

of security measures) and time on hand to be involved in extremism; and (iii) personal crisis (Table 4).²⁰

There were clear differences between VGEs and other groups regarding physical activities that can support and facilitate extremist capabilities. Many more VGEs presented evidence of these whilst none of the VLEs did, maybe due to opportunities to train and travel abroad via Islamic extremist networks and support provided by these. None of the VLEs had trained/traveled abroad, perhaps because these were XRW and therefore lacked opportunities that are commonly available to Islamic extremists, or simply because, as we might expect, they were acting alone and so had less access to the skills and expertise of others and fewer connections to acquire weapons etc. This links to research that suggests that whilst lone actor terrorists can be dangerous, most are not highly capable.²¹ Lone individuals may struggle more to operate in such circumstances whereas group extremists may find ways to overcome security measures that act as a barrier, via the support of other group members.

Another interesting finding was that 13 out of the 15 VGEs had all been reported as being previously passionate about participating in sports. Whilst a review of the social, psychological and physical benefits of sports is outside of the scope of this article, it is recognized that there are a number of potential rewards relating to a person's physical and mental health whilst also providing a mechanism through which individuals can interact with others, gain peer acceptance and a sense of belonging. These in turn can help with a person's status and self-esteem,²² especially in adolescence.²³ For the VGEs it may have been that whilst in school they were benefitting from these rewards but that once they left full-time education this stopped. As such, they needed to seek other activities that could provide group membership and the rewards that come from this, and joining an extremist group may have been one option open to them. Indeed, a search for belonging is well recognized as a factor that can motivate young males to join extremist organizations.²⁴

Analysis of this theme also found that more VLEs and VGEs were seen to be operating in an environment that allowed them to plan and prepare extremist-related activities, whilst only a small number of NVLEs were – which may explain why the latter chose nonviolent action. In terms of a physical opening, there were no clear differences. However, regarding personal crisis, many more of the violent extremists (VLEs and VGEs) had experienced a catalyst/crisis, and had expressed a perceived personal responsibility to act. There is empirical research to indicate that major stressors can act as a 'trigger' for violent action,²⁵ and that an event that makes something political become perceived as personal is key to lone actor terrorism.²⁶ Moreover, a terrorist lifestyle may

lead to traumatic events such as exposure to violence and violent images (some extremely so), and fear, stress and pressures related to avoiding detection and/or death.²⁷ These can in themselves lead to psychological issues: That is, being a terrorist can be psychologically detrimental to those involved.

Theme 3: Grievances

This theme captured those variables related to grievances that might underlie extremist attitudes and actions (see Table 5). There were two subthemes: (i) ingroup-outgroup thinking, which covers how extremists perceive themselves in relation to others, and (ii) exclusion and rejection, which covers how individuals have been treated by others. For example, feelings of marginalization and that Muslims are being persecuted (e.g. ‘The West hates Islam’), being (or perceiving to be) rejected by certain groups (including other extremist groups), being bullied and/or experiencing racism and prejudice, especially Islamophobia (e.g. ‘Whites against Asians’) and separation from parent(s) that led to sense of abandonment.

In terms of ingroup-outgroup thinking, in 100% of all cases a perceived external threat and/or outgroup to blame were evident; that is groups did not differ. However, there were also notable between-groups differences for other variables. First, perceived competition for resources was evident for more VLEs, compared to other groups. Second, a high percentage (100% for some groups) of VGEs, NVLEs and NVGEs perceived a persecution of others and identified with this group of others, whilst a much smaller number of VLEs did so. These findings suggest that ingroup-outgroup thinking underlying the grievances of VLEs is, in part, more centered around perceived competition for resources (possibly because this group comprises of more XRW cases), whereas for other groups (comprising mainly Islamic extremists) grievances are more relevant to identifying with a group perceived to be persecuted.

In terms of exclusion and rejection, there was evidence for both lone and group extremists, but examination of the variables that constitute this subtheme demonstrate nuanced differences between groups. More VLEs had been rejected by a significant other, by certain groups and/or by a school or employer, but none had been a victim of racism (probably because over half of the group was XRW). However, a high percentage (over 85%) of the group extremists had been a victim of racism and over half of the VGEs had also been bullied: This is likely to be at least in part attributed to 9/11 and

Table 5. Grievances across groups of extremists (figures represent n and %).

Subthemes	Underlying variables	VLE	VGE	NVLE	NVGE
Ingroup- outgroup thinking	Perceived external threat/outgroup to blame	9 (100%)	15 (100%)	9 (100%)	7 (100%)
	Perceived competition for resources	6 (66.7%)	0	2 (22.2%)	0
	Perceived persecution of others (see below)	4 (49.9%)	15 (100%)	8 (88.9%)	7 (100%)
	Identification with a persecuted others (see above)	3 (33.3%)	15 (100%)	8 (88.9%)	6 (85.7%)
Exclusion, rejection	Rejected by significant other	6 (66.7%)	3 (20%)	2 (22.2%)	1 (14.3%)
	Experiences of being bullied	3 (33.3%)	8 (53.3%)	1 (11.1%)	0
	Victim of racism/ prejudice	0	14 (93.3%)	0	6 (85.7%)
	Rejected by certain group(s)	6 (66.7%)	0	2 (22.2%)	0
	Rejected by school/ employer	5 (55.6%)	0	2 (22.2%)	0

the Islamophobia that followed. Feelings of prejudice, exclusion and marginalization are widely recognized as key factors underlying extremism. All VGEs were Islamic extremists, and grew up in a post 9/11 era when they may have been bullied for their religion, even if they were not especially devout or religious in practice. Moreover, the war in Iran and other similar events may have led to a perception of Muslims being under attack. There were also a high percentage of British Asians and immigrants in the VGE group who may have experienced prejudice against them due to the increase in terrorist attacks conducted in the name of Islam. VGEs were therefore more likely to have grievances that lead to feelings of marginalization and isolation due to their religion and citizenship, whilst the XRW might have similar feelings but as a result of being rejected by others (perhaps due to psychological problems and their lack of social skills needed to 'fit in').

Theme 4: Identity

This theme is about a person's identity, in terms of who they are, what they believe in, how they view themselves and the world, and how they think they should behave. There are three subthemes relating to a (i) sense of self, (ii) search for purpose and meaning, and (iii) sense of failure (Table 6).

There were few clear trends in the data for this theme, and there were similarities between groups for a number of variables indicating that identity may be more about extremist beliefs than about violent action.

Regarding a sense of self, the most notable differences were that more VGEs presented a sense of superiority and had deliberately disconnected themselves from other certain groups (mainly non Muslims, or Muslims perceived to be too moderate – i.e. not extreme enough). In terms of a search for purpose and meaning, more group extremists were linked to influential others, and had attempted to connect to likeminded others via the Internet. The other notable finding was that considerably more of the VGEs had visited a variety of mosques, had traveled abroad (mainly to Pakistan) and

Table 6. Identity across groups of extremists (figures represent n and percentages).

Subthemes	Underlying variables	VLE	VGE	NVLE	NVGE
Sense of self	Sexual exploration	1 (11.1%)	0	0	0
	Seek fame	1 (11.1%)	0	1 (11.1%)	0
	Perceived superiority	5 (55.6%)	12 (93.3%)	2 (22.2%)	1 (14.3%)
	Deliberately disconnected self from certain groups	2 (22.2%)	11 (73.3%)	0	2 (28.6%)
Search for purpose, meaning	Status seeking	4 (44.4%)	5 (33.3%)	3 (33.3%)	2 (28.6%)
	Attempted to connect to LM others via internet	6 (66.7%)	14 (93.3%)	6 (66.7%)	7 (100%)
	Seek like-minded others	7 (77.8%)	15 (100%)	6 (66.7%)	7 (100%)
	Ideology	9 (100%)	15 (100%)	9 (100%)	7 (100%)
	Links to influential others	4 (44.4%)	15 (100%)	6 (66.7%)	7 (100%)
	Visited various mosques	2 (22.2%)	15 (100%)	2 (22.2%)	1 (14.3%)
	Exhibited Western (non-Muslim) behaviors	1 (11.1%)	15 (100%)	3 (33.3%)	5 (71.4%)
Sense of failure	Lack of social skills	5 (55.6%)	0	3 (33.3%)	0
	Low self esteem	7 (77.8%)	1 (6.7%)	1 (11.1%)	0
	Sexual frustrations	5 (55.6%)	2 (13.3%)	1 (11.1%)	0
	Dropped out of education/ employment	4 (44.4%)	6 (40%)	3 (33.3%)	1 (14.3%)
	Under-achieved	6 (66.7%)	11 (73.3%)	3 (33.3%)	2 (28.6%)
	Employment	4 (44.4%)	5 (33.3%)	3 (33.3%)	5 (71.4%)

had conducted ‘Western behaviors’ (e.g. drinking alcohol, having premarital relationships) that would be seen as unacceptable by some strict Muslims. Behaviors conducted whilst a teenager (that may have been perceived by some as ‘un-Islamic’) may have been attempts to fit in that provided a sense of belonging, but lifestyle and behaviors incongruent to (Muslim) beliefs may have meant that individuals sought ways to repent when older. It may be that their joining an extremist group may be an attempt to redress these behaviors and redeem themselves to other Muslims and/or in the eyes of Allah. Only a small percentage of VLEs had visited various mosques, traveled abroad or presented such Westernized behaviors, partially due to high numbers of XRW in this subgroup.

In terms of sense of failure, there were a number of similarities between-groups. However, more VLEs had low self-esteem (which may be linked to more of this group having psychological issues) and sexual frustration, and more lone extremists (violent and nonviolent) lacked social skills. In terms of under-achieving, notably more violent extremists presented evidence for this variable. It may be that frustrations that result from a perceived sense of under-achievement, combined with or exaggerated by a sense of superiority, lead to grievances and an outgroup to blame. However, such grievances do not inevitably lead to violence: Whilst these can underlie support for violence, they do not predict violent action.²⁸

Theme 5: Connectedness

This last theme relates to how individuals are connected to other individuals and other social groups (see Table 7). It comprised two subthemes; the first was about being isolated and alienated, for example a lack of friends or intimate relationships, and being disconnected from family or specific social groups. The second related to seeking to belong, for example by attempting to join certain groups or gangs, or converting to Islam.

This theme is strongly related to the previous theme of ‘Identity’, which determines how people see themselves fitting in with others, and as such is important to feelings of connectedness. Unsurprisingly, compared to the group members, more lone extremists were described as a loner and lacked a significant other and friends. VLEs were the least socially integrated. Conversely, more VGEs were reported as having a supportive family

Table 7. Connectedness across groups of extremists (figures represent n and %).

Subthemes	Underlying variables	VLE	VGE	NVLE	NVGE
Isolation, alienation	Described as a loner	6 (66.7%)	1 (6.7%)	7 (77.8%)	0
	Lack of significant other	6 (66.7%)	4 (26.7%)	6 (66.7%)	4 (57.1%)
	Lack of secure/ stable background	4 (44.4%)	6 (40%)	3 (33.3%)	2 (28.6%)
	Lack of friends	5 (55.6%)	0	6 (66.7%)	0
	Disconnected from family	6 (66.7%)	4 (26.7%)	4 (44.4%)	0
	Supportive family background	5 (55.6%)	12 (80%)	5 (55.6%)	4 (57.1%)
	Socially integrated	2 (22.5%)	12 (80%)	5 (55.6%)	4 (57.1%)
Seeking to belong	Converted to Islam	2 (22.2%)	3 (20%)	0	0
	Attempted to join group	6 (66.7%)	15 (100%)	5 (55.4%)	6 (85.7%)
	Sought acceptance from certain groups	5 (55.6%)	7 (46.7%)	5 (55.6%)	6 (85.7%)
	Connected with Western others	7 (77.8%)	12 (80%)	8 (88.9%)	7 (100%)
	Gang membership	2 (22.2%)	5 (33.3%)	0	1 (20%)
	Team membership	1 (11.1%)	13 (86.7%)	0	2 (28.6%)
	Status seeking	4 (44.4%)	5 (33.3%)	3 (33.3%)	2 (28.6%)

background, as being socially integrated, as having a significant other (i.e. more VGEs had a partner or spouse), and had sought team membership.

VLE cases studies included information about individuals needing a belief system in order to have a sense of purpose and meaning. Often feelings of inferiority, exclusion, and a lack of belonging were reported, which all relate to low self-esteem. This may have been at least in part due to psychological issues and problems regarding social interactions with others. VGEs had similarly been rejected and marginalized, but for different reasons: mainly due to their religion, citizenship, race and so on. Identity is especially important during adolescence - when individuals are much more self-conscious about their identity,²⁹ and begin to think about how this relates to the rest of their life.³⁰ This is when VGEs were most likely to experience prejudice and bullying, and being young, adolescent and male are features of increased vulnerability to extremist influences. However, our data showed no clear trends/large differences between groups, suggesting that whilst identity is related to extremist views, it does not dictate a preference for violent or nonviolent behavior.

Overall discussion

The main aim of the current research was to investigate the similarities and differences between violent and nonviolent group and lone-actor extremists. Traditionally, research has described terrorism as a social phenomenon that is inspired by and facilitated by group interactions and the rewards associated with this.³¹ However, it is now recognized that extremist individuals acting alone pose a real and serious threat to security. The current research was an exploratory study that compared lone and group member extremists, who had acted violently or not. CSR was applied here to examine in-depth a substantial amount of data from different sources. Critics of CSR argue that observing a single individual or group at one time results merely in a snapshot that is highly context-dependent and therefore not generalizable.³² However, we take a number of closely related cases and show homogeneity and heterogeneity between them; therefore, allowing an in-depth review of the four types of extremists.

There are two key take-home messages from this study. First, analysis of all cases identified a large number of variables shared by the different types of extremists studied here. These are variables that underlie extremism in general (i.e. extremist beliefs and attitudes) but do not explain behavioral differences. The second take-home message is that there were some striking differences between groups, and some variables do seem to distinguish between groups, which might explain how and why some individuals conduct violent acts whilst others do not, as part of a group or alone. These include: many more violent extremists (VLEs and VGEs) had been rejected by others (VLEs had been rejected by a significant other and by a group, VGEs had been victims of racism and prejudice), experienced a perceived personal responsibility to act, a sense of underachievement and a sense of superiority. This indicates that these factors may motivate violent action(s). Moreover, more lone extremists lacked a significant other and friends, and many more VLEs present evidence of psychological issues, lacked social skills, self-esteem and were reported to have sexual frustrations. These may have contributed to an ideology that was a mix of extremist views but also personal grievances and issues.

Interestingly, many more VGEs had access to capabilities needed for violent attacks, for example via training, travel abroad, and links to other extremists. And many more violent extremists (VLEs and VGEs) had experienced a personal crisis that may have provided an impetus and a psychological preparedness to act violently.

The COM-B model has been developed mainly for the area of Health Psychology,³³ but may be applicable to Defense and Security problems since it purports to be a simple model that can explain behaviors in general. The COM-B model posits that Capability (C), Opportunity (O) and Motivation (M) are all required for Behavior (B) to occur: This concurs with others who propose that acts of terrorism occur when capability, opportunity and motivation meet.³⁴ Most of the data in the case studies analyzed here relates to the motivation of extremists, however, for violent action to be conducted, opportunities (for example, to plan, prepare for and conduct an attack) and capabilities (physical and psychological) are also key. This study showed differences between groups regarding capability, opportunity and motivation. It may be that whilst nonviolent extremists hold extremist views, they may either lack the motivation to act violently, or lack the capability or opportunity to do so. Although motivation is required, it does not necessarily lead to violent action:³⁵ Capability (psychological and physical) to conduct a violent act and the opportunity to do so are also required. Indeed, whilst we know that beliefs do matter, they rarely predict violence, for example most violent extremists are not the most ideologically radicalized.³⁶

Further research is required to better understand why those at risk choose not to get involved in violent extremism, and also to explore differences between lone and group member extremists. These are likely to be hindered or facilitated by links (or lack of links) to others in order to develop capabilities and opportunities required for a violent attack. This may influence behavioral outcomes, for example lone actor attacks may be less complex and sophisticated compared to those conducted by groups of individuals. Data collection for future studies should therefore enable understanding of capability and opportunity as well as motivation, and the application of the COM-B model to better understand extremism should be considered. In particular, to understand how, when and why capability (psychological and physical) and opportunity (physical and social) influences the behavioral choices of those with extremist views, and how to apply the COM-B model to prevent or counter violent extremism. Countering and preventing terrorism requires elimination of capability, opportunity and/or motivation;³⁷ therefore interventions need to, for example: prevent radicalization (motivation); immunize against violent ideologies (motivation); identify and disengage individuals (capability, opportunity).³⁸ Moreover, if most nonviolent extremists lack at least one of the three key components needed for (violent) behavior, this can be useful for those responsible for risk assessment – to decide if an individual is simply not motivated to be violent (and is therefore less of a risk), or is nonviolent because they lack capability and/or opportunity (and is therefore higher risk).

Further research is also needed to understand the moderating and mediating effects between different push, pull, protective and risk factors. For example, how marginalization and a rejection by others together with a sense of under-achievement may have led to individuals seeking an alternative identity, ways to belong, and seek meaning and purpose via extremist activities. A lack of identity and connectedness may present a

personal crisis, whereby individuals are particularly susceptible to extremist influences. Extremism may be seen to provide a link to like-minded others, a sense of self and belonging and an opportunity to connect and be part of a group and something bigger (even for lone extremists, but perceive to achieve this via online connections). Extremism may also be perceived as a means to achieving status and respect, which are sought by those suffering from low self-esteem. As such, whilst a lack of identity' may not be sufficient for violence, the rewards associated with extremism, plus grievances and identification of an outgroup to blame may contribute to the 'perfect storm' of factors that result in violent (lone or group) extremist action. Moreover, for Islamic extremists, extremism may be seen as a way to repent for previous 'non Muslim' behaviors and a way of overcoming feelings of marginalization and prejudice experienced for being a Muslim. For the XRW it may be a way to (seemingly) connect to others and find a way of fitting in, when psychological issues and lack of social skills have otherwise made this difficult.

Future research may also inform those responsible for the upstream detection of violent actors. Regarding cues that might be used for those wanting to detect violent actors, it seems that most religiously inspired lone actor terrorists are likely to tell friends and families of their motivations and intentions, whilst the XRW are more likely to tell people online.³⁹ Moreover, lone actor terrorists may tend to lack the ability to maintain operational security and often leak cues regarding their motivation and intentions.⁴⁰ In the current study there was insufficient data to compare groups on these measures, however there were some marked differences regarding physical activities. VGEs stood out from other subgroups because a high percentage of VGEs had been involved in extremist-related training activities, had traveled abroad and had been reported as passionate about participating in (team) sports. None of the VLEs scored for these measures, and only one NVLE and one NVGE. This indicates that for law enforcement and CT practitioners, more VGEs might be detected via these behaviors, but this will not be the case for lone extremists.

Limitations and challenges for research in this area

There are several limitations to the current study. One was that finding cases that were of sufficient detail and could be easily categorized as violent or nonviolent was difficult, especially for the NVEs: Few such cases were reported, and when they were, the amount and level of detail available was often sparse, which indicated a reporting bias where violent cases attract more attention and therefore generate more data. There was also the issue of how to make sense of missing data: Did this mean that the variable did not exist for that individual or just that it had not been reported?¹⁵ Whilst efforts were made to verify information for all cases, there remains a risk that missing data was misinterpreted. Future studies may consider instead categorizing these types of cases as 'unknown'.⁴¹ It was also sometimes difficult to categorize individuals as violent or non-violent, and as lone or as a group member, which led to the exclusion of a number of cases. We are also mindful that some readers may not agree with how we categorized

¹⁵This is a typical limitation of research like this, and the best approach is to use multiple sources of information to analyze, and multiple cases per group – both of which were attempted in the current study.

some individuals as 'violent' before they had conducted an act of violence (i.e. they had been disrupted by law enforcement), when we are aware that they may not have gone on to conduct the act. We chose to take those cases where individuals were convicted on substantial evidence that they would have acted if not disrupted.

Another limitation of this study is that this study included only a small sample, and focused on individuals in the U.K. who were convicted of extremist-related offenses. Therefore our results might be biased in that we exclude (i) extremists from other countries, (ii) those who are not disrupted or caught, (iii) nonviolent extremists who have not committed criminal acts. We recognize these limitations which were a result mainly of a desire to focus on this specific population and issues regarding the categorization of cases which we did not anticipate pre data collection. Moreover, the threat may have changed (the data was collected and case studies were developed between 2011-2015). Therefore cases may not be representative of more recent threats, for example when a vehicle is the weapon of choice. There have been a number of terrorist attacks since 2015; examining data regarding these more recent events will enable future research to examine this question and allow for a larger sample size to analyze.

The above links to another issue with the current study, in that the distribution of Islamic and XRW individuals was not even across different subgroups, in fact all XRW cases were lone actors and all group-based cases were Islamic extremist. It is therefore difficult to know when ideology is driving different behavioral outcomes. The fact that we did not find any XRW individuals in our VGE sample is interesting in itself, and deserves an exploration of why this was the case. We need to ask why all group attacks were ideologically-focused, whether VGE is somehow more appealing to Islamic-inspired individuals and whether lone actor terrorism is for some reason more appealing to the XRW. Alternatively, it might be that data available are influenced by, for example, reporting bias where group member XRW does not attract the attention of the media and/or is less likely to be pursued by law enforcement agencies for some reason. Certainly in the U.K. the XRW is now recognized as a real and serious threat, and it was announced in July 2019 that it will now be included in official threat-level warnings. Since data was collected for this study, there have been more high profile XRW attacks and therefore future research may investigate this in more detail than we were able to.

Another challenge for future research is that this study demonstrated that it is often difficult to categorize individuals as lone or not. Several attempts have been made to identify and describe different subtypes of lone actors,⁴² whilst others have proposed that 'loneness' should be understood as on a continuum.⁴³ With the rise of the internet it is argued that it is in fact impossible to exist without others having some kind of an influence, and as such the concept of 'loneness' itself needs serious reconsideration.⁴⁴ Moreover, loneness may be voluntary, whereby the individual has removed themselves from others (e.g. because they perceive others as not radical enough, or as not acting where required) or involuntary (e.g. they have been refused group membership, they do not meet selection criteria, or they have been rejected from a group).⁴⁵

If we accept that extremists are likely to sit on a continuum in terms of how 'lone' they are (and possibly how violent they are), then it is problematic to exclude those who sit near the middle of the axis. For the purpose of this study, we needed to

categorize individuals as representing one of four subgroups, and so we only included those that were away from the mid-point and towards the more extreme points in terms of whether their behavior was violent or nonviolent, and whether they were operating as part of a group or alone. Future studies need to consider whether this issue can be overcome to include the types of extremists that were excluded from this study, in order to develop a more nuanced understanding of the different types of extremism.

Conclusion

Previously, unsuccessful attempts by researchers to identify a terrorist profile have led to the agreement that this approach is futile.⁴⁶ However, more recently it has been proposed that if we disaggregate our categorization of ‘terrorists’ into more specific, distinct groups, there might be some shared characteristics that represent these different types of extremists.⁴⁷ The current study took an empirical approach to identify why and how individuals with similar (extremist) perspectives reached different behavioral outcomes, in terms of acting violently or not, alone or as part of a group. Findings may therefore assist practitioners, to better understand and identify high risk individuals and to tailor interventions for different types of individuals and groups. More empirical research is now needed in order to verify these findings, to explore the different roles within groups such as those who procure weapons and facilitate acts of violence compared to those directly engaged in violence and to develop a more nuanced understanding of the similarities and differences between lone and group extremists.

Notes

1. N. Gibbs, "The Fort Hood Killer: Terrified . . . Or Terrorist?," *Time Magazine*, November 11, 2009.
2. P. Gill, J. Horgan, and P. Deckert, "Bombing Alone: Tracing the Motivations and Antecedent Behaviors of Lone-Actor Terrorists," *Journal of Forensic Sciences* 59, no. 2 (2014), <http://dx.doi.org/10.1111/1556-4029.12312>; E. Corner and P. Gill, "A False Dichotomy? Mental Illness and Lone-Actor Terrorism," *Law and Human Behavior* 39, no. 1 (2015), <http://dx.doi.org/10.1037/lhb0000102>. J. Gruenewald, S. Chermak, and J. D. Freilich, "Distinguishing "Loner" Attacks from Other Domestic Extremist Violence: A Comparison of Far-Right Homicide Incident and Offender Characteristics," *Criminology & Public Policy* 12, no. 1 (2013), <http://dx.doi.org/10.1111/1745-9133.12008>; B. Schuurman, Edwin Bakker, Paul Gill, and Noémie Bouhana, "Lone Actor Terrorist Attack Planning and Preparation: A Data-Driven Analysis," *Journal of Forensic Sciences* 63, no. 4 (2018), <http://dx.doi.org/10.1111/1556-4029.13676>.
3. J. M. Post, "Addressing the Causes of Terrorism," *The Club de Madrid Series on Democracy and Terrorism* 1 (2005).
4. M. Schomerus, S. El Taraboulsi-McCarthy, and J. Sandhar, *Countering Violent Extremism (Topic Guide)* (Birmingham, UK: University of Birmingham, 2017).
5. *Ibid.*
6. P. Gill and E. Corner, "There and Back Again: The Study of Mental Disorder and Terrorist Involvement," *American Psychologist* 72, no. 3 (2017), <http://dx.doi.org/10.1037/amp0000090>; S. Knight, K. Woodward, and G.L.J. Lancaster, "Violent Versus Non-Violent Actors: An Empirical Study of Different Types of Extremism," *Journal of Threat Assessment and Management* 4, no. 4 (2017). A. Perliger, G. Koehler-Derrick, and A. Pedahzur, "The Gap

- between Participation and Violence: Why We Need to Disaggregate Terrorist 'Profiles'," *International Studies Quarterly* 60, no. 2 (2016), <http://dx.doi.org/10.1093/isq/sqv010>.
7. R. Simcox and Emily Dyer, *Al-Qaeda in the United States: A Complete Analysis of Terrorism Offenses* (London, UK: Henry Jackson Society, 2015).
 8. M.D. Mumford, K.E. Bedell-Avers, S.T. Hunter, J. Espejo, D. Eubanks, and M.S. Connelly. "Violence in Ideological and Non-Ideological Groups: A Quantitative Analysis of Qualitative Data," *Journal of Applied Social Psychology* 38, no. 6 (2008), <http://dx.doi.org/10.1111/j.1559-1816.2008.00358.x>.
 9. Gill, Horgan, and Deckert; Gruenewald, Chermak, and Freilich.
 10. J. Horgan, N. Shortland, S. Abbasciano, and S. Walsh, "Actions Speak Louder Than Words: A Behavioral Analysis of 183 Individuals Convicted for Terrorist Offenses in the United States from 1995 to 2012," *Journal of Forensic Sciences* 61, no. 5 (2016), <http://dx.doi.org/10.1111/1556-4029.13115>; Knight, Woodward, and Lancaster. Perliger, Koehler-Derrick, and Pedahzur.
 11. *Ibid.*
 12. C. Ragin, "Introduction: Cases of "What Is a Case?,"" in *What Is a Case? Exploring the Foundations of Social Inquiry*, ed. C. C. Ragin and H.S. Becker (New York, NY: Cambridge University Press, 1992).
 13. B. Flyvbjerg, "Five Misunderstandings About Case-Study Research," *Qualitative Inquiry* 12, no. 2 (2006): 219–245.
 14. R. Yin, *Applications of Case Study Research* (Thousands Oaks, CA: Sage, 2003).
 15. R. E. Stake, *Multiple Case Study Analysis* (New York, NY: The Guildford Press, 2006).
 16. D. A. Keatley, *Pathways in Crime: An Introduction to Behaviour Sequence Analysis*, 1 ed., *Crime Prevention and Security Management* (New York, NY: Palgrave Macmillan, 2018); D. A. Keatley, S. McGurk, and C. S. Allely, "Understanding School Shootings with Crime Script Analysis," *Deviant Behavior* (2019), <http://dx.doi.org/10.1080/01639625.2019.1596543>.
 17. V. Braun and V. Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research Psychology* 3, no. 2 (2006): 77–101.
 18. Corner and Gill. E. Corner, P. Gill, and O. Mason, "Mental Health Disorders and the Terrorist: A Research Note Probing Selection Effects and Disorder Prevalence," *Studies in Conflict & Terrorism* 39, no. 6 (2016), <http://dx.doi.org/10.1080/1057610X.2015.1120099>; Gruenewald, Chermak, and Freilich. C. Hewitt, *Understanding Terrorism in America. From the Klan to Al Qaeda* (New York, NY: Routledge, 2003).
 19. R. Spaaij, "The Enigma of Lone Wolf Terrorism: An Assessment," *Studies in Conflict & Terrorism* 33, no. 9 (2010), <http://dx.doi.org/10.1080/1057610X.2010.501426>.
 20. Q. Wiktorowicz, *Radical Islam Rising: Muslim Extremism in the West* (Oxford: Rowman & Littlefield, 2005).
 21. Schuurman et al.
 22. Leonard M. Wankel and Bonnie G. Berger, "The Psychological and Social Benefits of Sport and Physical Activity," *Journal of Leisure Research* 22, no. 2 (1990), <http://dx.doi.org/10.1080/00222216.1990.11969823>; K. R. Fox, *The Physical Self: From Motivation to Well-Being*, ed. K. R. Fox (Champaign, IL: Human Kinetics, 1997). Elizabeth Daniels and Campbell Leaper, "A Longitudinal Investigation of Sport Participation, Peer Acceptance, and Self-Esteem among Adolescent Girls and Boys," *Sex Roles* 55 (2006), <http://dx.doi.org/10.1007/s11199-006-9138-4>.
 23. R. Fox Kenneth and Lindwall Magnus, "Self-Esteem and Self-Perceptions in Sport and Exercise," in *Routledge Companion to Sport and Exercise Psychology* (London: Routledge, 2014).
 24. Randy Borum, "Radicalization into Violent Extremism I: A Review of Social Science Theories," *Journal of Strategic Security* 4, no. 4 (2012), <http://dx.doi.org/http://dx.doi.org/10.5038/1944-0472.4.4.1>.
 25. R. A. Fein and B. Vossekuil, "Assassination in the United States: An Operational Study of Recent Assassins, Attackers, and near-Lethal Approachers," *Journal of Forensic Sciences* 44, no. 2 (1999), <http://dx.doi.org/10.1520/jfs14457j>; K. Hickie and D. Roe-Sepowitz, "Female Juvenile Arsonists: An Exploratory Look at Characteristics and Solo and Group Arson Offences," *Legal and Criminological Psychology* 15, no. 2 (2010). C. McCauley, "Ideas Versus

- Actions in Relation to Polls of Us Muslims," *Analyses of Social Issues and Public Policy* 13, no. 1 (2013), <http://dx.doi.org/10.1111/asap.12014>; J. Yakeley and J. R. Meloy, "Understanding Violence: Does Psychoanalytic Thinking Matter? (vol. 17, p. 229, 2012)," *Aggression and Violent Behavior* 17, no. 5 (2012), <http://dx.doi.org/10.1016/j.avb.2012.04.004>.
26. C. McCauley and S. Moskaleiko, "Toward a Profile of Lone Wolf Terrorists: What Moves an Individual from Radical Opinion to Radical Action," *Terrorism and Political Violence* 26, no. 1 (2014), <http://dx.doi.org/10.1080/09546553.2014.849916>.
 27. Gill and Corner.
 28. J. Guhl, "Why Beliefs Always Matter, but Rarely Help Us Predict Jihadist Violence. The Role of Cognitive Extremism as a Precursor for Violent Extremism," *Journal for Deradicalization* 14, no. Spring (2018).
 29. E. Erikson, *Identity: Youth and Crisis* (New York, NY: Norton, 1968).
 30. L. Steinberg, *Adolescence* (New York, NY: McGraw-Hill, 2008).
 31. Post.
 32. Flyvbjerg.
 33. S. Michie et al., *ABC of Behaviour Change Theories: An Essential Resource for Researchers, Policy Makers and Practitioners* (Sutton, UK: Silverback Publishing, 2014).
 34. M.H. Bin Hassan and K.G. Pereire, "An Ideological Response to Combating Terrorism – the Singapore Perspective," *Small Wars & Insurgencies* 17, no. 4 (2006), <http://dx.doi.org/10.1080/09592310601060815>.
 35. Knight, Woodward, and Lancaster. C. McCauley and S. Moskaleiko, "Mechanisms of Political Radicalization: Pathways toward Terrorism," *Terrorism and Political Violence* 20, no. 3 (2008), <http://dx.doi.org/10.1080/09546550802073367>; M. Taylor and J. Horgan, "A Conceptual Framework for Addressing Psychological Process in the Development of the Terrorist," *Terrorism and Political Violence* 18, no. 4 (2006), <http://dx.doi.org/10.1080/09546550600897413>.
 36. Guhl.
 37. Bin Hassan and Pereire.
 38. A. Speckhard, "Prison and Community-Based Disengagement and De-Radicalization Programs for Extremists Involved in Militant Jihadi Terrorism Ideologies and Activities" (NATO report chapter), 2011, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.222.2350&rep=rep1&type=pdf>.
 39. C. Ellis et al., "Analysing the Processes of Lone-Actor Terrorism Research Findings," *Perspectives on Terrorism* 10, no. 2 (2016), <http://www.jstor.org/stable/26297551>.
 40. Schuurman et al.
 41. Horgan et al.
 42. Ellis et al.
 43. R. Borum, R. Fein, and B. Vossekuil, "A Dimensional Approach to Analyzing Lone Offender Terrorism," *Aggression and Violent Behavior* 17, no. 5 (2012), <http://dx.doi.org/10.1016/j.avb.2012.04.003>.
 44. Schuurman et al.; R Spaaij and M Hamm, "Key Issues and Research Agendas in Lone Wolf Terrorism," *Studies in Conflict & Terrorism* 38, no. 3 (2015), <http://dx.doi.org/10.1080/1057610X.2014.986979>.
 45. J. Horgan, "From Profiles to Pathways and Roots to Routes: Perspectives from Psychology on Radicalization into Terrorism," *Annals of the American Academy of Political and Social Science* 618 (2008), <http://dx.doi.org/10.1177/0002716208317539>; A. Silke, "Becoming a Terrorist," in *Terrorists, Victims and Society: Psychological Perspectives on Terrorism and Its Consequences*, ed. Andrew Silke (West Sussex, UK: Wiley, 2003); Spaaij.
 46. J. Horgan, *The Psychology of Terrorism* (New York, NY: Routledge, 2014); J. Rae, *Will It Ever Be Possible to Profile the Terrorist?*, vol. 3 (2012).
 47. Perliger, Koehler-Derrick, and Pedahzur.

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