



Violent and Nonviolent Terrorist Suspects: a Comparative Analysis Based on Data from the Netherlands

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Abstract

What are similarities and differences between violent and nonviolent terrorist suspects? Our study aims to answer this question by comparing *violent terrorist suspects* (VTS) ($n=57$) to *nonviolent terrorist suspects* (NVTS) ($n=292$) in the Netherlands. Guided by social control theories and using register data from the Dutch Public Prosecution Service, Statistics Netherlands, and the Research and Documentation Centre of the Ministry of Justice and Security, we investigated the 2 years *leading up* to the terrorist suspicion by examining demographic characteristics, household composition, socioeconomic factors, and criminal background. Findings demonstrate more similarities than differences between the groups. Nonetheless, VTS were significantly more often male and had more often a (violent) criminal background. For NVTS, we found possible preventive effects of living with parents and employment. Furthermore, the differences in socioeconomic status (SES) we found urge us to develop a better understanding of the socioeconomic environment VTS and NVTS are part of and whether and how their perception of this environment influences their behavior. Notwithstanding the limitations in our study (e.g., potential police bias in register data, small sample sizes), the analyses provide insight into what factors, and potential underlying mechanisms, need further investigation to understand violent and nonviolent outcomes.

Keywords Terrorism · Nonviolent · Violent · Comparison · Factors · Longitudinal data

Introduction

An important question within terrorism studies is why, within the group of people with radical ideas, only a small minority actually engages in ideologically motivated violence (Borum, 2011). What makes these individuals¹ act violently, while the majority refrains

¹ In discussing relevant literature, we use the terms ((non)violent) radicals, ((non)violent) ideologically motivated individuals, and ((non)violent) terrorists interchangeably. Furthermore, studies regarding radicals, extremists, and terrorists are included since they represent the broad spectrum of subjects we are interested in.

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from violence? Answering this question remains one of the most challenging tasks for scholars (Horgan, 2017).

Importantly, there is a significant gap between radicalization of opinion and radicalization of action (Khalil, 2014; McCauley & Moskaleiko, 2014): in many cases, extreme ideas do not naturally lead to extreme actions or any action at all, suggesting the necessity for scientific nuance. Furthermore, distinguishing between nonviolent and violent behavior is important, since “ultimately, it is the latter that is of primary concern for the purposes of public security” (Leuprecht et al., 2010, p. 47). It is, therefore, essential to have a more comprehensive understanding of the differences between violent and nonviolent radicals because it could help investigative policing of potential violent extremists and terrorists while simultaneously preventing stigmatization of people expressing ideas that are considered extreme but who do not commit acts of violence.

To develop a better understanding of potential differences between violent and nonviolent radicals, applying a criminological theoretical framework as suggested by several terrorism scholars may be fruitful (e.g., Freilich & LaFree, 2015; LaFree et al., 2018; Wolfowicz et al., 2019). Specifically, a life-course criminological lens has the potential to explore the relevance of the numerous risk and protective factors that studies into general (violent) offending have uncovered (such as employment status, living situation, romantic (un)stable relationships, and previous criminal involvement (LaFree et al., 2018)) for this specific population. Although some terrorism scholars employed a criminological perspective, thus far, (quantitative) contributions focusing on both violent and nonviolent extremists and terrorists have been limited.

In order to study different (i.e., violent and nonviolent) outcomes and to create a deeper understanding of the developmental processes leading to these particular outcomes, both violent (e.g., murder, assault) and nonviolent terrorists (e.g., recruiting, financing) are to be included within the same study. By using longitudinal register data on the backgrounds of terrorist suspects in the two years *leading up* to the terrorist suspicion, the present study aims to investigate this matter in more detail by comparing *violent terrorist suspects* (VTS) ($n=57$) and *nonviolent terrorist suspects* (NVTS) ($n=292$) in the Netherlands. Guided by social control theories, VTS and NVTS will be compared in terms of demographic characteristics, household composition, socioeconomic factors, and criminal background. As such, findings will demonstrate to what extent VTS and NVTS are similar or different and shed light on which factors are associated with violent or nonviolent acts with terrorist intent. In the remainder of this article, we first discuss the complexity concerning this type of research and review the literature on violent and nonviolent radical behavior. Next, we describe our criminological focus and our methodology. Finally, we present our findings, reflect on their implications, and discuss future research.

Challenges of Terrorism Research

Pathways into terrorism are diverse (Jensen et al., 2018; Lösel et al., 2018; Wolfowicz et al., 2019), and a process of radicalization is often part of these pathways. According to Doosje et al. (2016), “radicalization is a process through which people become increasingly motivated to use violent means against members of an out-group or symbolic targets to achieve behavioral change and political goals”(p.79). Scholars from different academic disciplines have identified contextual circumstances and individual characteristics, such as social-psychological processes (e.g., group relative deprivation, identity conflicts, personality characteristics, and extreme emotions) and direct triggers

(e.g., the loss of employment or a significant other), that might explain why someone radicalizes and may eventually become a threat to society (e.g., Doosje et al., 2016; Feddes et al., 2012; King & Taylor, 2011; McCauley & Moskalenko, 2008). Although these studies provide relevant insights into the radicalization process in general, they fail to answer the question of why only a small minority of radicalized people end up committing acts of violence.

Scholars have highlighted several issues within terrorism research that complicate studying this topic (Freilich et al., 2015; King & Taylor, 2011; Pisiou, 2013; Schuurman, 2019; Victoroff, 2005). We will briefly discuss two of these in more detail.² First, due to the sensitivity of the topic and the relatively small number of research subjects, empirical data are scarce and/or inaccessible to researchers (Knight & Keatley, 2019; Sageman, 2014). Governmental organizations, especially penal institutions, are regularly hesitant to cooperate or share (sensitive) data on terrorists. Scholars are, therefore, often more inclined to use non-empirical research methods (e.g., theoretical studies) and/or fragmented (open-source) data for their research projects. Also, based on an overview of terrorism research between 2007 and 2016, the use of databases and statistics is still limited, although considerable progress has been made in terms of using primary data (Schuurman, 2018). Moreover, few studies have utilized systematically collected quantitative data to make inferences (LaFree et al., 2018). In short, a lack of sufficient data has hampered empirical and more advanced quantitative research.

Second, although the research field is improving in this regard (as shown below), there have been few studies employing (nonterrorist) comparison or control groups for many years. Without comparison groups, it is impossible to discover if and how (violent) terrorists are different from nonterrorists (Victoroff, 2005). Additionally, if there is slight variation in the dependent variable, this also poses problems to a study's external validity and inferential power (LaFree et al., 2018). As such, terrorism researchers should try, where possible, to include comparison or control groups in their studies.

Violent Versus Nonviolent: What Do We Know So Far?

The preceding issues complicate exploring factors and processes which may lead to violent or nonviolent radical acts. Nevertheless, particularly in recent years, researchers have advanced our knowledge in this regard through comparison studies (e.g., Bartlett et al., 2010; Bartlett & Miller, 2012; Becker, 2019; Bjørge, 2002; Bjørge & Gjelsvik, 2017; Jaskoski et al., 2017; Knight et al., 2017, 2019). In their comparison of violent and non-violent outcomes, some scholars concentrate on people who have radical views without engaging in violence (e.g., Bjørge, 2002; Bjørge & Gjelsvik, 2017; Jaskoski et al., 2017). In short, they found that path dependency (e.g., joining a nonviolent organization), positive family bonds, knowingly being under police surveillance, and moral constraints play a role in refraining from violence.

Focusing more on the violent outcome, Bartlett et al. (2010) compared jihadi terrorists, radicals, and young Muslims (control group) using open archival data (e.g., security service reports, trial information) and interviews. They demonstrate, for instance, that more so than

² Beyond the scope of our study, another challenge worth mentioning is the definitional issue of concepts, such as radicalization, terrorism, and extremism (e.g., Borum, 2011; Knight & Keatley, 2019). In the "Data and Methods" section, we describe the definition of terrorist suspects we use in our study.

terrorists, radicals are more inclined to have been part of political protests, to have studied at a university, and to have been employed. However, the researched groups showed many similarities: they experienced some degree of social exclusion, showed hatred towards foreign policy, mistrusted governments (specifically policing and intelligence agencies), felt unconnected to their local community, and/or suffered an identity crisis of sorts. In a subsequent publication, Bartlett and Miller (2012) mention additional elements (emotional pull, thrill, status-seeking, and peer pressure) that are of importance for a violent outcome. Likewise, in comparing case studies of violent and nonviolent group-based and lone actor extremists, Knight et al. (2019) demonstrate that a large number of the included variables they studied via open-source data are shared by the different types of extremists. However, there are also some striking differences: more violent extremists, as compared to nonviolent extremists, had experienced rejection by others (e.g., rejected by significant other, victim of racism), felt a perceived personal responsibility to act, and experienced a sense of superiority and a sense of underachievement. Also, more violent extremists, as compared to nonviolent extremists, had experienced a personal crisis of some sort, and they more often had access to capabilities needed for violent attacks. Additionally, with a study into different extremist pathways based on open-source materials, Jensen et al. (2018) demonstrate that both a sense of community victimization (via a community crisis) and a fundamental shift in individuals' cognitive frames (i.e., the learning processes an individual undergoes in forming radical beliefs) are important conditions for violent outcomes. The authors continue, however, that by themselves, these two conditions are not sufficient for explaining violence. According to them, through the combination of these conditions and the broader range of psychological, group, and material factors, pathways to violence are formed.

Criminological Indicators

Based on this overview, differences found between nonviolent and violent radicals are primarily rooted in possible constraints to violence and cognitive or identity factors. However, several academics stress that there appear to be more similarities than differences between violent and nonviolent radicals (e.g., Bartlett et al., 2010; Knight et al., 2019). Therefore, it might be relevant to examine additional factors that are traditionally part of criminological research, as some scholars recently did. For example, Perry et al. (2018) find that weak morality and poor self-control predict the potential for both violent and nonviolent right-wing extremism in their survey study. Still, criminogenic exposure (i.e., exposure to delinquent peers) only increases the potential for violent extremism and is irrelevant for its nonviolent form. Furthermore, in using an open-source dataset on extremists in the USA (Profiles on Individuals Radicalized in the United States (PIRUS)), different scholars have quantitatively tested criminological theories (e.g., social control theory and social learning theory) (Becker, 2019; LaFree et al., 2018; Pritchett & Moeller, 2021). Becker (2019) finds that weaker social control (e.g., less involvement in work) and stronger (deviant) social learning (e.g., belonging to a gang) are associated with violent rather than nonviolent behavior. Additionally, LaFree et al. (2018) and Pritchett and Moeller (2021) show that variables related to socioeconomic status (SES), radical peers, and a criminal record all have significant effects on participating in violent extremism.

LaFree et al. (2018) argue that terrorism researchers should give more attention to criminological indicators, and in response to this call, our study includes a criminological

perspective to investigate what factors can be associated with a violent or nonviolent outcome. Our main focus is the social control theory of Hirschi (1969) and its extension by life-course criminologists Sampson and Laub (1993). Control theory scholars theorize that the motivation to offend is omnipresent but that people can be shielded from deviance when developing bonds that connect them to conventional society (Hirschi, 1969). Deviation from conforming behavior is more likely to occur when bonds to conventional society—in the form of bonds to prosocial values (e.g., prosocial towards society's values and norms), prosocial people (e.g., parents), and prosocial institutions (e.g., school, employment)—are weakened (Hirschi, 1969). Additionally, Sampson and Laub (1993) emphasize the importance of later life-course milestones, or “turning points” that can alter or redirect behavioral trajectories in life. They bring forward that, regardless of “early differences in childhood experiences and delinquency, adult social bonds to work and family are significantly related to changes in adult crime” (Laub et al., 2018, p. 296).

Accordingly, weakening of social bonds and experiencing turning points could play a role in the life course of radicals and terrorists. Within criminological research, scholars have presented extensive evidence that stable employment is particularly important in forming prosocial bonds and that there is a robust relationship between marital status and crime (LaFree et al., 2018). Interestingly, there appears to be a difference with respect to marital commitment and SES when comparing violent with nonviolent radicals. In their research on identifying specific profiles for different types of terrorists within Islamist terrorist organizations, Perliger et al. (2016) find that individuals with lower levels of human capital (measured via employment) and who do not have marital commitments (divorced, single), are more likely to be involved in the direct execution of violence. Regarding additional socioeconomic indicators, the consensus among academics was that scientific research does not support the widespread opinion that terrorism is related to or the result of a lack of education or poverty (Freilich et al., 2015). Recently, however, several studies support the idea that having a low SES is relatively common among terrorists (e.g., Bakker, 2006; Ljubic et al., 2017), and becoming unemployed increases the risk of becoming a terrorism suspect (Rodermond & Thijs, 2022). These studies lead us to expect that VTS will have a lower SES as compared to NVTS. Furthermore, we postulate that, compared to NVTS, VTS will less often have a marital commitment.

Furthermore, criminological studies have consistently shown that sex and age play a role in violent behavior (e.g., Farrington, 2003). Young people and men are disproportionately responsible for crime in general. However, when it comes to violent political activity, LaFree et al. (2018) find no significant relationship with sex and age when controlling for other variables. We, therefore, expect that VTS are not significantly more likely to be men or younger, as compared to NVTS.

Both in popular media coverage and academic contributions, attention is paid to the criminal backgrounds of extremists and terrorists. While pre-radicalization criminal behavior is a consistent predictor of post-radicalization violence (LaFree et al., 2018), detailed information on the criminal history (e.g., types of crimes, prior offenses, being detained) is regularly lacking. However, increasingly, research reveals a connection between prior criminal acts and terrorist involvement (Basra & Neumann, 2016) and that a history of violence is an important factor influencing pathways towards becoming a violent extremist or terrorist, as opposed to a nonviolent one (Bartlett et al., 2010; Bjørgo, 2002; Knight et al., 2017). Based on the above-mentioned findings, we predict that VTS are more likely to have a (violent) criminal history as compared to NVTS.

Present Study

The literature presented above provides more details on differences regarding possible constraints to violence and factors and processes that may lead people to act violently. However, besides research using the PIRUS dataset, many of the mentioned studies lack a quantitative comparison on criminological indicators, such as demographic, socioeconomic, and prior criminal history factors. At the same time, these factors potentially also underly violent and nonviolent pathways. Moreover, we observe that quantitative studies investigating the life course of terrorist suspects or offenders are scarce and earlier studies use databases based on open-source material rather than register data.

In the present study, we contribute to existing literature and respond to earlier mentioned methodological challenges (1) by using empirical longitudinal register data, (2) by differentiating on the dependent variable, and (3) by including *all* terrorist suspects in the Netherlands, rather than a subset or a particular type of terrorists or extremists. Moreover, different from previous research, our use of longitudinal data allows us to (1) include time periods prior to the terrorist suspicion (1 month/1 year/2 years) and (2) examine within-individual as well as between-individual comparisons, resulting in better estimates of potential effects. Hence, we will answer the question: *what are similarities and differences between VTS and NVTS concerning demographic factors, household situation, SES, and (violent) criminal history?*

The Dutch Context

Before answering this question, we will briefly outline the Dutch context regarding demographics, household and socioeconomic situation, and crime. On 1 January 2021, the total Dutch population was 17,475,415, with an equal female/male distribution and an average age of 42 (CBS, 2022). In a recent study by Rodermond and Thijs (2022), terrorist suspects in the Netherlands were compared to a sample of the Dutch general population (matched on sex and age) to examine, among other factors, SES and criminal background (measured 1 year prior to the terrorist suspicion). Descriptive statistics showed that terrorist suspects lived slightly less often with their parents (31.5% vs. 36.6%) and more often alone (21.5% vs. 15.4%). Furthermore, terrorist suspects had a lower SES compared to the general population; the majority only finished a form of lower education (62.4% vs. 43.0%), had slightly less often income (84.9% vs. 94.5%), were less often employed (44.0% vs. 57.3%), received more regularly social benefits (24.0% vs. 8.2%), and became unemployed more often (11.5% vs. 2.2%). Finally, terrorist suspects were more often suspected of other crimes (29.2% vs. 0.4%) and/or previously detained (9.9% vs. 0.0%).

Data and Methods

Sample

Our sample is based on a combination of three data sources. Firstly, pseudonymized information (i.e., personal data no longer attributable to a subject without additional information) was provided by the Public Prosecution Service (PPS) to pinpoint all individuals suspected of “crimes with terrorist intent” in the Netherlands since the implementation of the

Terrorist Act in 2004. The law was implemented in November 2004, yet additional information on the date of allegedly committing the terrorist crime (from now on referred to as “terrorist suspicion”) showed that the earliest cases are from 2002. We received information up until December 2018.

The dataset of the PPS includes 490 terrorist suspicion cases. Three hundred eighty-six cases could be linked to other data sources, and eventually, 368 cases were identified as unique, meaning that they represent one individual. Seventeen individuals in the dataset had more than one terrorist suspicion (with a maximum of 3 suspicions). For 349 terrorist suspects, we had judicial information on a suspect’s alleged date of crime with terrorist intent. These 349 terrorist suspects form the basis of our analyses.

The definition for “crimes with terrorist intent” is derived from the Dutch penal code and reads as follows: “Crimes with terrorist intent aim to bring fear into the population or part of the population of a country, or force a government or international organization to perform unlawfully, not to perform, or submit to something, or heavily derail or destroy the fundamental political, constitutional, economic or social structures of a country or international organization.”³⁴ In order to be placed on the suspect list, there have to be “serious indications” of an offense with terrorist intent leading the police to forward the case to the public prosecutor. Individuals with less serious indications of a terrorist offense (e.g., individuals who were arrested but were cleared before a case was forwarded) are not in the dataset. This means that the included cases were backed by sufficient evidence to be sent to the public prosecutor for the next stage of prosecution.

For our study, we include both convicts and suspects. The reason for this is threefold. First, indictments pertain to concrete suspicions about actions with terrorist intent, compared to less specific suspicions for other types of offenders. Second, building a judicial case (i.e., gathering enough evidence) can be more difficult in terrorist suspect cases (e.g., by the need to establish proof of committing the act with terrorist purpose, due to early police interventions or crimes being committed in a foreign country, etc.). Finally, the often-long duration of the court cases dealing with terrorist suspects leads to cases still being in progress during our research. Our study therefore focuses on all individuals who were registered as terrorist suspects by the PPS.

The list of the PPS was sent to the Statistics Netherlands, which is the national statistical office that provides reliable statistical information and data to produce insight into social issues. Statistics Netherlands stored the list on a protected server and gave all suspects a unique, meaningless number. This unique number gives researchers the possibility to connect their dataset to the Statistics Netherlands datasets.⁵ By working in a secure online environment, only accessible via a personal token, we complemented the PPS list with the Statistics Netherlands microdata (i.e., data at the individual level) on life circumstances such as household situation, employment, education, and income situation.

Lastly, judicial data were inserted in the secure Statistics Netherlands environment and subsequently added to the PPS list. The judicial data were extracted from the Research

³ Translated by authors. See article 83a of the Dutch Penal Code, accessible via: <https://wetten.overheid.nl/BWBR0001854/2014-07-01#BoekTweede>.

⁴ We utilize a definition of terrorism that is employed by the Dutch authorities so that our use of the concept corresponds with our dataset. We want to stress, however, that by using this definition, we refrain from judgment on whether the concept accurately reflects what terrorism “entails.” It is a pragmatic choice; by using this dataset, we also need to use the accompanying definition to keep the research conceptually sound.

⁵ Data from Statistics Netherlands can be used within the EU under strict conditions for statistical research. The guiding principle is preventing disclosure of persons and safeguarding privacy.

and Policy Database Judicial Documentation provided by the Research and Documentation Centre of the Dutch Ministry of Justice and Security. The judicial data contain information on all registered criminality of Dutch citizens above 12 years, the age of criminal responsibility in the Netherlands. It holds information on a range of variables, such as types of crimes, previous convictions, and imposed punishments.

Looking at the suspects' characteristics, we find that male suspects (87.7 percent) dominate the sample. The average age when becoming a suspect of a terrorist crime is 29.45 years, with a range of 13–80 years ($n=346$). Regarding the terrorist suspicions, common terrorist offenses are as follows: being part of a terrorist organization, threatening with a terrorist crime, conspiring to commit a (violent) terrorist attack, and purposefully acquiring means/opportunities/intelligence to execute or help with a terrorist attack. Regarding court judgments, a large majority of suspects is tried as an adult (91.4 percent, $n=347$), which corresponds with the more mature age when most of them are suspected. Regarding the judicial procedure, 43.2 percent of the cases led to conviction,⁶ 23.5 percent were dismissed, 6.3 percent was ongoing at the time of receiving the data, and 26.9 percent of the data was missing.

Dependent Variable

We used the officially registered data on offending to construct a dichotomous dependent variable to assess whether they were accused of (at least one) violent crime(s) with terrorist intent (1 = yes, VTS; 0 = no, NVTS). Violent offenses with terrorist intent are defined as crimes that entailed *the use of actual physical violent behavior that could harm or kill another person (or living creature)*. Crimes included are, for instance, launching a violent terrorist attack (e.g., kidnapping, killing politicians or public servants, setting a religious building on fire). Since we used articles of law to create the groups, we label terrorist suspects as VTS if they were suspected of committing one of the following crimes with terrorist intent: public assault, aggravated assault, assault against civil servant, abuse, extortion with (threat of) violence, manslaughter, (conspiracy to) murder, intentional arson,⁷ using violence or dangerous object in an aircraft/airport, (conspiracy to) attack the nation (i.e., the King, parliament), deprivation of liberty/hostage-taking, and theft with (threat of) violence.⁸ Moreover, if besides the articles of law, it was specified that a crime involved “violence,” “abuse,” and/or “murder/death”, we include these as well.

We label terrorist suspects as NVTS if they were suspected of other crimes; examples are being part of a terrorist organization, recruitment, threatening with a terrorist crime, or financing terrorism. This division results in 57 VTS and 292 NVTS.

⁶ Terrorist suspects received a prison sentence (21.2 percent), community service (7.7 percent), financial punishment (2.3 percent), no sentence (6.3 percent), or acquittal (5.7 percent).

⁷ We only include cases where the article of law specified that casualties (either injuries or death) were to be expected (law articles 157 (2) and 157 (3)).

⁸ Excluded from the violent category are acts that could be conducted with violence, but where the article of law was unspecific on whether violence was used. These were possessing plans, resources, etc. for attacking the nation (i.e., the King, parliament); intentionally providing opportunity, resources, or intelligence for committing violence against persons or objects; withdrawing a minor of authority; unlawful coercion; and an attack on personal dignity (in particular humiliating and degrading treatment) in violation with Article 3 of the Geneva Treaties.

Independent Variables

A range of static variables is included in our analyses. First, we added the variable *sex* to examine a suspects' biological sex (0=male; 1=female). To examine the age at the first known offense, we constructed the variables *age at first criminal suspicion* and *age at first terrorist suspicion*. Subsequently, we included variables on *ever being suspected of crime (all offenses and misdemeanors)* (no=0; yes=1), *violent* (no=0; yes=1), *property* (no=0; yes=1), and *ever being in detention* (no=0; yes=1) prior to the terrorist suspicion.

Information about the independent dynamic variables—variables that can change over time—was collected for the period 2000 (2 years before the first terrorist suspicion in our dataset), until 2018. To avoid intermingling cause and effect, we excluded all months after the terrorist offense and dynamic variables were measured at different moments (i.e., 1 month, 1 year, and 2 years) *prior* to when the terrorist offense was allegedly committed. The variable *household* recorded the household composition of the terrorist suspects (living at parental home, living alone, being married, other,⁹ or unregistered). The variable *education* recorded the highest level of education (lower, middle/higher,¹⁰ unregistered, following the standard categorization of the Statistics Netherlands). The variable *employment situation* (not employed=0; employed=1) measured whether an individual was employed. The variable *social benefits* (not receiving social benefits=0; receiving social benefits=1) recorded whether an individual received social benefits at the different measurement moments in the 2 years prior to the suspicion. Finally, four variables measured the criminal history of the terrorist suspects: (1) *suspected of a crime* (no=0; yes=1) measured whether the individuals had been suspected of an offense and/or misdemeanor, (2) *suspected of violent crime* (no=0; yes=1) measured whether an individual was suspected of a violent offense, (3) *suspected of property crime* (no=0; yes=1) indicated whether a person was suspected of property crime, and (4) *detention* (no=0; yes=1) measured whether an individual had been in prison.

For our analyses, we constructed (dichotomous) categorical variables on a monthly level. To do so, we created a person-month file, recording separate information for each month a person was observed in the 2 years leading up to the terrorist suspicion. For example, if an individual was married from May 2008 to the end of 2008, one would get a 0 on the married variable from January to April 2008 and a 1 on the married variable from May to December 2008. For education and detention, there were no data available for some of the years we were interested in, leading to missing data for a small part of the sample on these factors. Additionally, both variables were only available on a yearly rather than monthly level, leading us to include them in the descriptive tables and exclude them from the multivariable models.

Analyses

Our analyses are divided into three parts. First, we give an overview of descriptive statistics. Via the Fisher's exact test (two tailed), we conduct bivariate comparisons to test

⁹ For example, living with roommates or in an institution (e.g., prison, elderly home).

¹⁰ Due to small numbers regarding higher education, we merged the middle and higher education categories.

whether VTS or NVTS are significantly distinct regarding demographic factors, household situation, socioeconomic indicators, and criminal history.

Second, we use logistic regression models to compare the VTS and NVTS at different times—1 month, 12 months, and 24 months prior to terrorist suspicion—and investigate which factors are associated with an increased or decreased likelihood of becoming a VTS compared to a NVTS. The analyses produce an odds ratio (exponentiated coefficients), the corresponding standard deviation (SE), and the statistical significance (in asterisks).

Third, we used the person-month file to estimate random effects (RE) and fixed effects (FE) panel models (using the `xtlogit` command). In the RE models, a comparison is made across all data points of all sample members, while the standard error is corrected for the clustering of observations within individuals (Bijleveld et al., 2018). RE models, however, do not control for unobserved differences between individuals and therefore only show associations with the dependent variable. FE models, on the other hand, give a better estimate of the effect of time-varying variables. As fixed effects models only focus on within-individual changes over time, the models control for all time-stable differences between individuals. Hausman tests were used to verify whether FE or RE models should be preferred. If the Hausman test indicates that the estimates from the FE model significantly differ from those from the RE model, the FE model is preferred (as the RE model then produces biased estimates). If no significant differences between estimates were found, the RE model is preferred as it is more parsimonious.

In the analyses, we focus on the 2 years leading up to the terrorist suspicion, measuring variation on a monthly level and using the terrorist suspicion (yes = 1, no = 0) as our outcome measure. The odds ratios from the FE and RE models indicate that individuals have increased or decreased odds of becoming a terrorist suspect in the months in which they have a higher score on an independent variable. Both FE and RE analyses are conducted separately for VTS and NVTS.

Due to a small sample size of VTS, which restricts the number of variables that can be included in multivariable analyses, and types of analyses for the inferential statistical analyses (measured on a monthly level rather than a yearly level), we included the following variables in the multivariable models: household position, employment, social benefits, and previous criminal activity. For all analyses, both descriptive and multivariable, we directly compare the violent to the nonviolent group. However, the FE and RE models (described in more detail below) are due to the nature of the analyses conducted separately for both groups, using a dummy of the alleged terrorist offense date as our dependent variable. Nevertheless, we tested whether the estimated odds ratios for the VTS in the FE and RE models differed significantly from the estimated odds ratios for the NVTS in the FE and RE models (for more information, see Altman & Bland, 2003). Analyses are performed in Stata version 16.1.

Results

Descriptive Statistics

Table 1 presents demographic and criminal history factors of both VTS and NVTS. While most of both groups are male, VTS are significantly more likely to be male than NVTS (>90.0 versus 86.0 percent; $p < 0.05$). Furthermore, while having a criminal history is common for both groups, VTS are significantly more likely to have a criminal past than

Table 1 Demographic factors and criminal history: violent terrorist suspects and nonviolent terrorist suspect comparison

Terrorist suspects		Violent (<i>n</i> = 57)		Nonviolent (<i>n</i> = 292)		OR
Variables	Categories	%	#	%	#	
Sex						X*
	Male	> 90.0	> 50	86.0	251	
	Female	< 10.0	< 5	14.0	41	
Age at first criminal suspicion			(<i>n</i> = 56)		(<i>n</i> = 290)	1.62
	Minors-25	78.6	44	69.3	201	
	26 and older	21.4	12	30.7	89	
Age terrorist suspicion			(<i>n</i> = 56)		(<i>n</i> = 290)	1.21
	Minors-25	49.1	28	44.3	128	
	26 and older	50.9	29	55.7	161	
Ever before first terrorist suspicion: suspected of...						
...crime	Yes	86.0	49	64.7	189	3.34**
...violent crime	Yes	54.4	31	36.6	107	2.06*
...property crime	Yes	57.9	33	39.0	114	2.15*
in...						
...detention			(<i>n</i> = 41)		(<i>n</i> = 162)	
	Yes	61.0	25	56.2	91	1.22

* $p < .05$, ** $p < .01$. NB: We modified the numbers that were too small to publish (in accordance with the Statistics Netherlands privacy-policy) by reporting an approximation (“<” or “>”) or “X” rather than exact numbers

NVTS (86.0 versus 64.7 percent; $p < 0.01$). Accordingly, we also observe that it is significantly more common ever to be suspected of violent crime (54.4 versus 36.6 percent; $p < 0.05$) or property crime (57.9 versus 39.0 percent; $p < 0.01$) for VTS than NVTS. No significant differences were found between VTS and NVTS regarding the age of their first criminal offense, the age when they became a terrorist suspect, and whether they were ever imprisoned.

Table 2 gives an overview of the average scores on the dynamic variables (i.e., factors that can change over time) 1 month, 1 year, and 2 years before the terrorist suspicion, comparing the nonviolent and violent groups. Regarding household situation and SES variables, we see no significant differences between the two groups in any of the time periods. Generally, most terrorist suspects lived at their parents’ homes or lived alone in the years before the suspicion. Furthermore, they had a relatively low SES, indicated by generally having a low educational level, often having no employment and an increase in the number of terrorist suspects receiving social benefits in the 2 years leading up to the suspicion.

Moreover, in the years prior to their suspicion, most terrorist suspects were not suspected of a crime. Yet, for both years, a significant difference is notable: over one-third of the violent group was suspected of one or multiple crimes in comparison to almost one-fifth of the nonviolent group (year 1: $p < 0.05$; year 2: $p < 0.01$). When focusing on specific types of crime, we notice that only a small minority is suspected of violent and/or property crime. Yet, VTS were significantly more often suspected of violent

Table 2 Descriptive violent terrorist suspects and nonviolent terrorist suspects: dynamic variables measured prior to terrorist suspicion

Variables	Category	1 month prior		1 year prior		2 years prior		OR	OR
		VTS (n=57)	NVTS (n=292)	VTS (n=57)	NVTS (n=292)	VTS (n=57)	NVTS (n=292)		
Household		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
	Other	9 (15.8)	59 (20.2)	6 (10.5)	60 (20.5)	12 (21.1)	50 (17.1)	0.45	1.29
	Parental home	18 (31.6)	77 (26.4)	21 (36.8)	85 (29.1)	21 (36.8)	102 (34.9)	1.42	1.09
	Alone	18 (31.6)	87 (29.8)	19 (33.3)	84 (28.8)	15 (26.3)	75 (25.7)	1.24	1.03
	Married	5 (8.8)	45 (15.4)	6 (10.5)	42 (14.4)	>5 (>8.8)	40 (13.7)	0.70	X
	Unregistered	7 (12.3)	24 (8.2)	5 (8.8)	21 (7.2)	<5 (<8.8)	25 (8.6)	1.24	X
Education	Low			23 (40.4)	125 (42.8)	24 (42.1)	132 (45.2)	0.90	0.88
	Middle/high			12 (21.1)	92 (31.5)	12 (21.1)	79 (27.1)	0.58	0.72
	Unreg			22 (38.6)	75 (25.7)	21 (36.8)	81 (27.7)	1.82	1.52
Employment	Yes	16 (28.1)	91 (31.2)	20 (35.1)	98 (33.6)	22 (38.6)	103 (35.3)	1.07	1.15
	Yes	25 (43.9)	97 (33.2)	19 (33.3)	85 (29.1)	16 (28.1)	72 (24.7)	1.22	1.19
Suspected of..	crime			20 (35.1)	55 (18.8)	21 (36.8)	58 (19.9)	2.33*	2.35**
	.. violent crime			8 (14.0)	15 (5.1)	9 (15.8)	17 (5.8)	3.01*	3.03*
	.. property crime			10 (17.5)	15 (5.1)	8 (14.0)	16 (5.5)	3.93**	2.82*
	Detention			(n=43)	(n=263)	(n=41)	(n=250)	4.46**	3.85**
	Yes			12 (27.9)	21 (8.0)	9 (22.0)	17 (6.8)		

* $p < .05$, ** $p < .01$. NB: We modified the numbers that were too small to publish by reporting an approximation (“<” or “>”) rather than exact numbers. The bivariate analyses are Fisher’s exact tests, except for the ordinal variable of education (we used the Goodman–Kruskal gamma test)

Table 3 Logistic regression models on violent terrorist suspects measured prior to terrorist suspicion

	Model 1: 1 month prior		Model 2: 1 year prior		Model 3: 2 years prior	
	OR (s.e.)	95% CI	OR (s.e.)	95% CI	OR (s.e.)	95% CI
Sex (1 = female)	0.224* (0.167)	0.052–0.964	0.263 (0.198)	0.060–1.150	0.233 (0.176)	0.053–1.021
Age	0.971 (0.0185)	0.935–1.008	0.970 (0.0198)	0.932–1.010	0.974 (0.0201)	0.935–1.014
Household						
Parental home	(ref.)		(ref.)		(ref.)	
Alone	0.781 (0.327)	0.344–1.773	0.878 (0.386)	0.370–2.080	1.201 (0.556)	0.485–2.977
Married	0.593 (0.363)	0.179–1.966	0.951 (0.586)	0.284–3.181	1.058 (0.636)	0.326–3.437
Other	0.685 (0.330)	0.266–1.760	0.468 (0.248)	0.166–1.322	1.467 (0.668)	0.601–3.581
Unregistered	1.892 (1.050)	0.637–5.616	1.239 (0.805)	0.347–4.430	0.806 (0.557)	0.208–3.123
Social benefits	2.522* (1.009)	1.151–5.526	1.767 (0.781)	0.743–4.203	1.188 (0.518)	0.505–2.793
Employment	1.354 (0.511)	0.647–2.836	1.565 (0.594)	0.743–3.294	1.348 (0.475)	0.675–2.690
Crime			1.221 (0.590)	0.473–3.150	1.448 (0.622)	0.625–3.359
Violent crime			1.789 (1.044)	0.570–5.616	1.679 (0.921)	0.573–4.919
Property crime			2.601 (1.470)	0.860–7.871	1.539 (0.855)	0.518–4.574
<i>N</i>	349		349		349	

* $p < .05$. NB: VTS=1, NVTS=0. Whereas other variables are measured exactly 1 month, 1 year, and 2 years prior, the crime variables are measured over the whole first year and the whole second year to deal with the rarity of committing an offense. Thus, we do not report crime data for model 1

($p < 0.05$) and property (year 1: $p < 0.01$; year 2: $p < 0.05$) crimes than NVTS (circa 15 percent of the total VTS versus circa 5 percent of the total NVTS). Finally, the last variable demonstrates a difference between VTS and NVTS regarding being imprisoned before the terrorist suspicion; although both groups pertain to a minority, a significantly larger part of the violent group (circa 25 percent versus circa 7 percent) was detained before their terrorist suspicion.

Multivariable Analyses

Table 3 presents the results of the logistic regression models where VTS are compared to NVTS at different time points (1 month/1 year/2 years) before their terrorist suspicion. In model 1, VTS are almost 4.5 times (OR = $1/0.224 = 4.464$, $p < 0.05$) more likely to be male than female. However, we find no association with sex when controlling for previous crime

(see models 2 and 3).¹¹ Furthermore, model 1 shows that receiving social benefits increases the likelihood of becoming a VTS (OR=2.5, $p < 0.05$). Interestingly, we find no significant outcomes in models 2 and 3, representing 1 and 2 years before the terrorist suspicion, meaning that the significant findings for crime in Table 2 become insignificant when you control for other variables.

Table 4 presents the FE and RE models. The Hausman test is significant for NVTS (model 2, $p < 0.01$) but not for VTS (model 1, $p = 0.22$), indicating that the FE model is preferred for the NVTS while the RE model is preferred for the VTS. However, the insignificant Hausman test for VTS might be the consequence of the small sample size of this group ($n = 57$). The confidence intervals in the FE and RE models for VTS are, therefore, relatively large, and the regression coefficients, consequently, less likely to differ significantly from each other. Among the VTS, no significant associations are found in the RE model.¹² The FE model shows significant and positive associations with having an unregistered household situation (OR = 10.3) and receiving social benefits (OR = 14.8), indicating that being unregistered and receiving social benefits are positively related to becoming a VTS. However, as the Hausman test is insignificant for this model, these estimates should be interpreted with caution.

Among the NVTS (model 2), the FE model shows that several within-individual changes are associated with becoming a NVTS. First, we find that, in contrast to living at one's parental home, living alone (OR=3.1), being married (OR=4.8), another household status (OR=3.7), and having an unregistered household situation (OR=3.0) are all positively related to being a NVTS, therefore, indicating that NVTS are less likely to be suspected of nonviolent terrorist acts in the months in which they live in their parental home than in the months in which they live in one of the other household situations. Second, receiving social benefits (OR=2.0) is positively related to becoming a NVTS. On the other hand, employment is negatively associated with becoming a NVTS (OR=0.4), suggesting that individuals are less likely to become a NVTS in the months in which they are employed. Finally, NVTS are more likely to become a terrorist suspect in the months when they were also suspects of another crime (OR=2.5). However, different types of crime show insignificant results.

Finally, we have tested whether the odds ratios from the FE and RE differed between the VTS and NVTS. The only significant difference was found in the FE models and showed that receiving social benefits was significantly stronger related to the terrorist crime of VTS than of NVTS. None of the other comparisons yielded significant results, indicating that the strength of the associations of these life events is not significantly different between both groups.

Discussion

Our goal was to quantitatively examine similarities and differences between *violent terrorist suspects* (VTS) ($n = 57$) and *nonviolent terrorist suspects* (NVTS) ($n = 292$). VTS represent individuals suspected of using physical violence with terrorist intent (e.g.,

¹¹ We do find an association for sex in models 2 and 3 on the $p < .1$ level.

¹² Unlike FE models, RE models can measure time-invariant variables. Therefore, we included sex in the RE models. The time-varying variable age was excluded from the FE model since the person-month file stops after the month of the terrorism suspicion. Consequently, the month with the highest age, within each individual, was always the month of the terrorist suspicion, resulting in an artificially high odds ratio.

Table 4 Fixed and random effects models: comparing situation in the month of terrorist suspicion with 2 years prior—model 1: violent terrorist suspects/model 2: nonviolent terrorist suspects

	Fixed effects models				Random effects models			
	(1)		(2)		(1)		(2)	
	OR (s.e.)	95% CI	OR (s.e.)	95% CI	OR (s.e.)	95% CI	OR (s.e.)	95% CI
Sex (1 = female)								
Age								
Household								
Parental home	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Alone	3.452 (2.707)	0.742–16.054	3.113** (1.322)	1.355–7.155	1.069 (0.407)	0.507–2.256	1.087 (0.204)	0.752–1.570
Married	2.287 (3.348)	0.129–40.314	4.835* (3.240)	1.300–17.981	1.031 (0.571)	0.348–3.053	1.199 (0.280)	0.759–1.895
Other	2.314 (1.918)	0.456–11.744	3.732** (1.596)	1.615–8.628	0.890 (0.428)	0.347–2.284	1.151 (0.216)	0.797–1.662
Unregistered	10.310** (9.239)	1.780–59.713	3.005* (1.535)	1.104–8.180	1.749 (0.910)	0.630–4.850	0.953 (0.243)	0.578–1.573
Social benefits	14.780** (12.64)	2.762–79.034	2.046* (0.593)	1.159–3.610	1.700 (0.627)	0.825–3.504	0.973 (0.155)	0.712–1.330
Employment	0.798 (0.378)	0.316–2.019	0.438*** (0.102)	0.278–0.690	1.199 (0.400)	0.624–2.305	0.716* (0.108)	0.534–0.961
Crime	2.341 (1.592)	0.618–8.877	2.853** (0.938)	1.497–5.436	2.218 (1.440)	0.622–7.917	2.619** (0.823)	1.415–4.848
Violent crime	1.619 (1.467)	0.274–9.560	0.688 (0.462)	0.184–2.567	1.341 (1.122)	0.260–6.917	0.711 (0.469)	0.195–2.589
Property crime	0.906 (0.843)	0.146–5.611	1.532 (0.867)	0.505–4.648	0.810 (0.731)	0.138–4.756	1.290 (0.718)	0.433–3.841
N (individuals)	57		292		57		292	
N obs (months)	1425		7300		1425		7300	

* $p < .05$, ** $p < .01$, *** $p < .001$. NB: The Hausman test was significant for the NVTS ($p < .01$), but not for the VTS ($p = .2197$). The observations (i.e., the months) are clustered for each of the individuals

murder, assault) and NVTS are suspected of nonviolent crimes with terrorist intent (e.g., recruiters, financiers). Utilizing longitudinal register data over 2 years before their terrorist suspicion, we analyzed demographic factors, SES, and criminal past (including a history of violence). Although the VTS sample is small, making it more challenging to compare the groups, we used various statistical models to overcome this hurdle as much as possible. Nonetheless, our findings for the VTS in the multivariable analyses should be interpreted with caution.

Based on the descriptive data and multivariable models, we conclude that there are more similarities than differences between VTS and NVTS on the studied variables. Individuals from both groups are around the same age when first suspected of a terrorist offense, commonly live at the parental home or alone, have a low SES (measured via employment, education, and social benefits), and relatively often have a criminal history. Also, receiving social benefits increases the probability of becoming a VTS (1 month prior to terrorist suspicion) and a NVTS (FE model). As such, our findings confirm conclusions of earlier comparative research on violent and nonviolent outcomes that stress the overlap between both groups (e.g., Bartlett et al., 2010; Knight et al., 2019). The resemblance underlines that caution is needed, scientifically as well as in investigative policing, when assessing which persons are vulnerable to enter a violent pathway.

The bivariate analyses demonstrate that VTS are more often men and more likely to have a criminal background than NVTS. However, the logistic regression analyses show that the difference in sex is explained by men more often having a criminal background. Simultaneously, crime is no longer significant in the logistic regression models, suggesting that differences in crime between VTS and NVTS are the consequence of demographic backgrounds of those with versus those without a criminal past. However, for models with multiple variables, the lack of significant findings could also result from limited statistical power due to a relatively small N (especially for the VTS).

Overall, the logistic models demonstrate that, except for sex and social benefits in the first model, none of the variables show differences between VTS and NVTS, encouraging us to examine possible changes over time within the VTS and NVTS. Unlike for the VTS, where the overall insignificant outcome is likely related to the small N limiting the statistical power, we find evidence on the circumstances under which NVTS are more likely to become a terrorist suspect. Regarding the household position of NVTS, they are less likely to become a NVTS when living at their parental home. Since positive parenting behavior is considered a protective factor against extremism and violent radicalization (Lösel et al., 2018), NVTS might be shielded from radicalization, and leaving “the nest” may, in turn, start or accelerate the radicalization process. In accordance with the social control theory, NVTS who no longer live at their parental home are likely to have less direct social control from their parents, presumably making it easier to develop ideologically motivated deviant behavior. Although household position results for VTS were insignificant, we notice similar (even higher) odds ratios, indicating that positive parenting could perhaps also shield VTS from becoming violent. Interestingly, in reference to living at the parental home, marital status turned out to increase the likelihood of becoming a NVTS (and showed insignificant results for the VTS). Therefore, instead of a protective factor, marriage could function as a catalyst in the radicalization process, for example, when being married to a radical partner (e.g., Groen & Kranenberg, 2006).

Our VTS findings regarding employment reflect previous VTS comparative research (Becker, 2019; Pritchett & Moeller, 2021). Employment has no significant effect on a violent outcome, suggesting that this type of social bond does not play a considerable role for VTS.

Yet, we do find that employment is negatively associated with being suspected of a nonviolent terrorist offense, indicating that being employed is a protective factor against becoming a NVTS. Interestingly, both social benefits and employment generate an income (i.e., receiving money), still we find that the former increases the chances of becoming a NVTS, whereas the latter decreases that chance. Therefore, it seems that in some cases, money issues are not the (sole) problem but rather the possible lack of social bonds and/or no longer participating in society. NVTS without employment lack commitment to a prosocial institution (work). In turn, they might experience a grievance (e.g., frustration) over being unemployed, possibly increasing the feeling of being disintegrated from society and losing interest in being a law-abiding citizen. At the same time, those who receive social benefits (i.e., being dependent on the state) could experience a similar frustration, leading to radical behavior. Based on our results, VTS are potentially more vulnerable to this effect than NVTS.

The crime variables in the descriptive tables indicate that having a (violent) criminal background is significantly more common for VTS; they are more likely to have been accused of violent and/or property crime and are more often imprisoned in the years before their terrorist suspicion. These descriptive results are similar to previous research of LaFree et al. (2018), supporting their findings that a criminal history is more common for violent ideologically motivated individuals. However, the multivariable analyses demonstrate insignificant effects for the VTS group on crime factors, making them less likely than NVTS to be suspected of offenses prior to their terrorist suspicion when controlling for other factors.

Limitations

An important limitation of our study is the sample size of the violent group. Due to its small size, we were unable to include all the relevant variables into one model (e.g., education). Also, the sample size possibly led to relatively large confidence intervals in the multivariable models. Subsequently, this could have resulted in regression coefficients that were less likely to differ significantly from each other.

Also, in general, data on terrorism collected by government entities are influenced by legal and political considerations (LaFree & Dugan, 2004), which leads to a bias as cases are mainly selected for criminal prosecution. Consequently, the data we used to conduct our study, which we received from the Public Prosecution Service in the Netherlands, reflect both empirical realities and Dutch political priorities and considerations over the researched period (e.g., focus on specific types of terrorism rather than all forms of terrorism). Hence, the data may not accurately represent the entire terrorist offender group.

Another limitation lies in the categorization of VTS versus NVTS. NVTS might be in the “nonviolent” category because they were (1) caught *before* they could engage in ideologically motivated violent acts or (2) never arrested for violent terrorist crimes they committed. Although this is a limitation we should keep in mind, the distinction was based on the information we had on the types of crimes associated with their terrorist suspicion, which gave us a detailed view on whether an individual was suspected of using physical violence.

Moreover, our use of register data constrained us to data that have been officially registered. Consequently, we possibly underestimated earlier criminal involvement prior to the terrorist suspicion and missed data on unregistered relationships (e.g., other types of

romantic involvement rather than marriage) and unofficial employment (i.e., illegal or voluntary work).

Finally, the data provided insight into factors that play a role in the pathways to violent and nonviolent ideologically motivated acts. However, due to the nature of this type of research and the limitations within the dataset, we were unable to study additional factors (e.g., peer pressure, experiencing grievances, mental illnesses, ideological commitment) that could be of significance and are highlighted by various academics (e.g., Corner & Gill, 2015; Jasko & LaFree, 2019; Kruglanski et al., 2014; LaFree et al., 2018).

Conclusion and Future Research

Although there are significant limitations, our study is the first to utilize longitudinal register data for comparing violent and nonviolent terrorist suspects. In doing so, we found more similarities than differences between the groups, which is in line with previous qualitative studies (e.g., Bartlett et al., 2010; Knight et al., 2019). However, the data do give us clues as to which factors and underlying mechanisms need further investigation. Notably, the differences in SES we found urge us to develop a better understanding of the socioeconomic environment VTS and NVTS are part of and whether and how their perception of this environment influences their behavior. VTS seem to be slightly more at a socioeconomic disadvantage (i.e., receiving social benefits) than NVTS, indicating that they are, more so than NVTS, struggling to be part of a working environment or society in general, which causes them to have (or intensify) grievances. Furthermore, with regard to criminal past, VTS have more often a criminal background than NVTS. Future research should clarify how this may affect a violent outcome.

Additionally, the logistic regression findings indicate that within the years that the radicalization process might unfold or accelerate, it is indeed hard to pinpoint what factors indicate if someone will eventually act in a violent or nonviolent way underlining the difficulty law enforcement agencies face in disentangling which individuals will eventually become violent and present an imminent danger to society. Moreover, it emphasizes the importance for terrorism researchers not only to investigate factors but also the underlying processes (and the order of events) that may lead to a violent outcome. Therefore, future efforts should be made into triangulating research methods and data to uncover the mechanisms that play a role in the paths to violent and nonviolent outcomes.

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Data Availability The data is not available publicly but is stored at Statistics Netherlands (CBS).

Declarations

Conflict of Interest The authors declare no competing interests.

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References

- Altman, D. G., & Bland, J. M. (2003). Interaction revisited: The difference between two estimates. *BMJ*, 326(7382), 219. <https://doi.org/10.1136/bmj.326.7382.219>
- Bakker, E. (2006). *Jihadi terrorists in Europe. Their characteristics and the circumstances in which they joined the jihad: An exploratory study*. Retrieved from Den Haag: https://www.clingendael.org/sites/default/files/pdfs/20061200_cscsp_csp_bakker.pdf
- Bartlett, J., Birdwell, J., & King, M. (2010). *The edge of violence: A radical approach to extremism*. Retrieved from London: https://www.demos.co.uk/files/Edge_of_Violence_-_web.pdf
- Bartlett, J., & Miller, C. (2012). The edge of violence: Towards telling the difference between violent and non-violent radicalization. *Terrorism and Political Violence*, 24(1), 1–21. <https://doi.org/10.1080/09546553.2011.594923>
- Basra, R., & Neumann, P.R. (2016). *Criminal pasts, terrorist futures: European jihadists and the new crime-terror nexus* (Vol. 10).
- Becker, M.H. (2019). When extremists become violent: Examining the association between social control, social learning, and engagement in violent extremism. *Studies in Conflict & Terrorism*, 1–21. <https://doi.org/10.1080/1057610X.2019.1626093>
- Bijleveld, C.C.J.H., van de Weijer, S.G.A., Ruiter, S., & van der Geest, V.R. (2018). *Analysis techniques for non-experimental data: An introduction*. Den Haag: eleven international publishing.
- Bjørøgo, T., & Gjelsvik, I.M. (2017). Right-wing extremists and anti-Islam activists in Norway: Constraints against violence. (3). Retrieved from <https://www.sv.uio.no/c-rex/english/publications/c-rex-working-paper-series/constraints-against-right-wing-violence.pdf>
- Bjørøgo, T. (2002). Exit Neo-Nazism: Reducing recruitment and promoting disengagement from racist groups. (627). Retrieved from <https://nupi.brage.unit.no/nupi-xmlui/handle/11250/2394077>
- Borum, R. (2011). Radicalization into violent extremism i: A review of social science theories. *Journal of Strategic Security*, 4(4), 7–36. <https://doi.org/10.5038/1944-0472.4.4.1>
- CBS. (2022). Statline, bevolking; kerncijfers. Retrieved from <https://opendata.cbs.nl/statline/#/CBS/nl/datasct/37296ned/table?ts=1653404721599>
- Corner, E., & Gill, P. (2015). A false dichotomy? Mental illness and lone-actor terrorism. *Law and Human Behavior*, 39(1), 23–34. <https://doi.org/10.1037/lhb0000102>
- Doosje, B., Moghaddam, F. M., Kruglanski, A. W., de Wolf, A., Mann, L., & Feddes, A. R. (2016). Terrorism, radicalization and de-radicalization. *Current Opinion in Psychology*, 11, 79–84. <https://doi.org/10.1016/j.copsyc.2016.06.008>
- Farrington, D. P. (2003). Developmental and life-course criminology: Key theoretical and empirical issues - the 2002 Sutherland award address. *Criminology*, 41(2), 221–256.
- Feddes, A. R., Mann, L., & Doosje, B. (2012). From extreme emotions to extreme actions: Explaining non-normative collective action and reconciliation. *Behavioral and Brain Sciences*, 35(6), 432–433. <https://doi.org/10.1017/S01405525X12001197>
- Freilich, J. D., & LaFree, G. (2015). Criminology theory and terrorism: Introduction to the special issue. *Terrorism and Political Violence*, 27(1), 1–8. <https://doi.org/10.1080/09546553.2014.959405>
- Freilich, J. D., Chermak, S. M., & Gruenewald, J. (2015). The future of terrorism research: A review essay. *International Journal of Comparative and Applied Criminal Justice*, 39(4), 353–369. <https://doi.org/10.1080/01924036.2014.922321>
- Groen, J., & Kranenberg, A. (2006). *Strijders van allah. Radicale moslima's en het hofstadnetwerk*. Meulenhoff.
- Hirschi, T. (1969). *Causes of delinquency*. University of California Press.
- Horgan, J. G. (2017). Psychology of terrorism: Introduction to the special issue. *American Psychologist*, 72(3), 199–204. <https://doi.org/10.1037/amp0000148>

- Jasko, K., & LaFree, G. (2019). Who is more violent in extremist groups? A comparison of leaders and followers. *Aggressive Behavior*, *n/a(n/a)*. <https://doi.org/10.1002/ab.21865>
- Jaskoski, M., Wilson, M., & Lazareno, B. (2017). Approving of but not choosing violence: Paths of non-violent radicals. *Terrorism and Political Violence*, 1-18. <https://doi.org/10.1080/09546553.2017.1364638>
- Jensen, M.A., Atwell Seate, A., & James, P.A. (2018). Radicalization to violence: A pathway approach to studying extremism. *Terrorism and Political Violence*, 1-24. <https://doi.org/10.1080/09546553.2018.1442330>
- Khalil, J. (2014). Radical beliefs and violent actions are not synonymous: How to place the key disjuncture between attitudes and behaviors at the heart of our research into political violence. *Studies in Conflict and Terrorism*, *37*(2), 198–211. <https://doi.org/10.1080/1057610X.2014.862902>
- King, M., & Taylor, D. M. (2011). The radicalization of homegrown jihadists: A review of theoretical models and social psychological evidence. *Terrorism and Political Violence*, *23*(4), 602–622. <https://doi.org/10.1080/09546553.2011.587064>
- Knight, S., Woodward, K., & Lancaster, G. L. J. (2017). Violent versus nonviolent actors: An empirical study of different types of extremism. *Journal of Threat Assessment and Management*, *4*(4), 230–248. <https://doi.org/10.1037/tam0000086>
- Knight, S., & Keatley, D.A. (2019). How can the literature inform counter-terrorism practice? Recent advances and remaining challenges. *Behavioral Sciences of Terrorism and Political Aggression*, 1-14. <https://doi.org/10.1080/19434472.2019.1666894>
- Knight, S., Keatley, D., & Woodward, K. (2019). Comparing the different behavioral outcomes of extremism: A comparison of violent and non-violent extremists, acting alone or as part of a group. *Studies in Conflict and Terrorism*, 1-22. <https://doi.org/10.1080/1057610X.2019.1680192>
- Kruglanski, A. W., Gelfand, M. J., Bélanger, J. J., Sheveland, A., Hetiarachchi, M., & Gunaratna, R. (2014). The psychology of radicalization and deradicalization: How significance quest impacts violent extremism. *Political Psychology*, *35*(S1), 69–93. <https://doi.org/10.1111/pops.12163>
- LaFree, G., & Dugan, L. (2004). How does studying terrorism compare to studying crime? In D. Mathieu (Ed.), *Terrorism and counter-terrorism* (Vol. 5, pp. 53–74). Elsevier Ltd.
- LaFree, G., Jensen, M. A., James, P. A., & Safer-Lichtenstein, A. (2018). Correlates of violent political extremism in the United States. *Criminology*, *56*(2), 233–268. <https://doi.org/10.1111/1745-9125.12169>
- Laub, J.H., Rowan, Z.R., & Sampson, R.J. (2018). The age-graded theory of informal social control. In D. P. Farrington, L. Kazemian, & A. R. Piquero (Eds.), *The oxford handbook of developmental and life-course criminology*. New York: Oxford University Press.
- Leuprecht, C., Hataley, T., Moskalenko, S., & McCauley, C. (2010). Containing the narrative: Strategy and tactics in countering the storyline of global jihad. *Journal of Policing, Intelligence and Counter Terrorism*, *5*(1), 42–57. <https://doi.org/10.1080/18335300.2010.9686940>
- Ljujic, V., van Prooijen, J. W., & Weerman, F. (2017). Beyond the crime-terror nexus: Socio-economic status, violent crimes and terrorism. *Journal of Criminological Research, Policy and Practice*, *3*(3), 158–172. <https://doi.org/10.1108/JCRPP-02-2017-0010>
- Lösel, F., King, S., Bender, D., & Jugl, I. (2018). Protective factors against extremism and violent radicalization: A systematic review of research. *International Journal of Developmental Sciences*, *12*(1–2), 89–102. <https://doi.org/10.3233/DEV-170241>
- McCauley, C., & Moskalenko, S. (2008). Mechanisms of political radicalization: Pathways toward terrorism. *Terrorism and Political Violence*, *20*(3), 415–433. <https://doi.org/10.1080/09546550802073367>
- McCauley, C., & Moskalenko, S. (2014). Toward a profile of lone wolf terrorists: What moves an individual from radical opinion to radical action. *Terrorism and Political Violence*, *26*(1), 69–85. <https://doi.org/10.1080/09546553.2014.849916>
- Perliger, A., Koehler-Derrick, G., & Pedahzur, A. (2016). The gap between participation and violence: Why we need to disaggregate terrorist ‘profiles.’ *International Studies Quarterly*, *60*(2), 220–229. <https://doi.org/10.1093/isq/sqv010>
- Perry, G., Wikström, P.-O.H., & Roman, G. D. (2018). Differentiating right-wing extremism from potential for violent extremism: The role of criminogenic exposure. *International Journal of Developmental Science*, *12*(1–2), 103–113. <https://doi.org/10.3233/DEV-170240>
- Pisoiu, D. (2013). Coming to believe “truths” about Islamist radicalization in Europe. *Terrorism and Political Violence*, *25*(2), 246–263. <https://doi.org/10.1080/09546553.2012.659361>
- Pritchett, S., & Moeller, K. (2021). Can social bonds and social learning theories help explain radical violent extremism? *Nordic Journal of Criminology*, 1-19. <https://doi.org/10.1080/2578983X.2021.1889133>

- Rodermond, E., & Thijs, F. (2022). From crime to terrorism: Life-circumstances and criminal careers of terrorist suspects. *Crime and Delinquency*, 0(0), 00111287221077645. <https://doi.org/10.1177/00111287221077645>
- Sageman, M. (2014). The stagnation in terrorism research. *Terrorism and Political Violence*, 26(4), 565–580. <https://doi.org/10.1080/09546553.2014.895649>
- Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Harvard University Press.
- Schuurman, B. (2019). Topics in terrorism research: Reviewing trends and gaps, 2007–2016. *Critical Studies on Terrorism*, 12(3), 463–480. <https://doi.org/10.1080/17539153.2019.1579777>
- Schuurman, B. (2018). Research on terrorism, 2007–2016: A review of data, methods, and authorship. *Terrorism and Political Violence*, 1–16. <https://doi.org/10.1080/09546553.2018.1439023>
- Victoroff, J. (2005). The mind of the terrorist - A review and critique of psychological approaches. *Journal of Conflict Resolution*, 49(1), 3–42. <https://doi.org/10.1177/0022002704272040>
- Wolfowicz, M., Litmanovitz, Y., Weisburd, D., & Hasisi, B. (2019). A field-wide systematic review and meta-analysis of putative risk and protective factors for radicalization outcomes. *Journal of Quantitative Criminology*. <https://doi.org/10.1007/s10940-019-09439-4>

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