

III. Research Notes

Analysing the Processes of Lone-Actor Terrorism: Research Findings

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Abstract

This Research Note presents the outcome of an investigation into the processes of lone-actor terrorism which was part of the Countering Lone-Actor Terrorism (CLAT) Project.[1] The research is based on a database of both plots and attacks across the twenty-eight EU member states, plus Norway and Switzerland, in the period 1 January 2000 to 31 December 2014. The database covers more than 70 variables and includes information relating to 120 individuals. This Research Note outlines some of the key findings of the CLAT project pertaining to 1) attack methodology and logistics; 2) political engagement and online activity and 3) leakage and interactions with authorities. The results relating to the personal characteristics of lone-actor terrorists are presented in a different Research Note in this issue of Perspectives on Terrorism.[2]

Keywords: *Lone Actor Terrorism; Lone Wolf; Violent Extremism; Right-Wing Extremism; Islamist Extremism; Counter-Terrorism*

Introduction

This Research Note presents the outcome of an investigation into the processes of lone-actor terrorism which was part of the Countering Lone-Actor Terrorism (CLAT) project. The project aimed to improve understanding of, and responses to, the phenomenon of lone-actor terrorism based on an analysis of cases from across Europe. The research team created a database covering more than 70 variables and including information relating to 120 individuals. Variables were chosen on the basis of a literature review and consultations with the project's advisory board.[3] The working definition of lone-actor terrorism utilized for this project was: 'The threat or use of violence by a single perpetrator (or small cell), not acting out of purely personal-material reasons, with the aim of influencing a wider audience, and who acts without any direct support in the planning, preparation and execution of the attack, and whose decision to act is not directed by any group or other individuals (although possibly inspired by others)'.[4]

Given the extensive nature of the enquiries conducted, the results for every variable are not recorded here; instead this Research Note offers a comprehensive outline of the most interesting findings related to the processes of lone-actor terrorism. It focuses on three sets of variables: attack methodology and logistics; political engagement and online activity, and; leakage and interactions with authorities.

Limitations

The CLAT database was constructed using open source information, and therefore, despite extensive effort by the research team, it does not contain every lone-actor terrorism plot during the period studied. First, not all plots are in the public domain, especially where they have been abandoned or disrupted by the authorities at an early stage. Second, there are variations across Europe in the way incidents are perceived and reported; for example, some incidents may be reported as a 'hate crime', but meet the criteria for inclusion in the CLAT database. The research team took steps to compensate; however, some cases will undoubtedly have been missed.

There are also some important limitations to the data collected. First, complete information is not always publically available, leading to a number of variables featuring high levels of 'unknown' entries. For some variables, this unavoidably limited the analysis that could be conducted and the strength of the conclusions that could be drawn. Second, there is an inevitable element of reporting bias: whether information is publicly available may depend on whether it was interesting to the journalists investigating the story.

Analysis of the Database

Due to the limitations of the data, it did not support detailed and sophisticated quantitative analysis. Instead, a more limited quantitative analysis was used to explore the data and highlight key trends; these were subsequently explored in greater detail through examination of case information. Various techniques were employed: in some cases, it was necessary to find the right benchmarks for comparison with the broader population; in other cases the most useful findings were uncovered through analysis of sub-categories, while correlations between variables also produced valuable insights.

Process Variables: Attack Methodology and Logistics

Ninety-eight lone-actor terrorist plots were identified for the period 1 January 2000 to 31 December 2014. They involved seventy-nine led by individuals, twelve by dyads and seven by triads. Among the 98 plots identified, 72 were successfully launched attacks. Of these 60 were perpetrated by individuals acting alone, 6 by dyads and another six by triads. Most plots and attacks took place in Great Britain (38) and France (11). In ten of the thirty countries studied, no lone-actor terrorist plot could be identified across the entire period of fifteen years. On the other hand, four countries had at least five plots, and two had more than five. In other words, lone-actor terrorism in Europe is rare. However, longitudinal analysis suggests an overall increase in lone-actor terrorism in the period under consideration. It is important to keep in mind that information on recent plots is more detailed and more readily available thanks to the rise in digital archives of news reports; however, even acknowledging this potential bias in the data collection, the overall trend nevertheless appears clear.

On average, lone-actor terrorist plots resulted in 1.99 fatalities and 4.58 injuries, with large standard deviations of 8.30 and 24.60, respectively. However, these figures are partly skewed by the attacks perpetrated by Anders Breivik on 22 July 2011.[5] 77 people were killed and 242 injured on that day alone, illustrating the harm a single individual can cause. Therefore, excluding Breivik as an outlier, lone-actor terrorist plots resulted in an average of 1.22 fatalities and 2.13 injuries, with standard deviations of 3.23 and 4.28, respectively. Even after the Breivik massacre in Utøya and Oslo is excluded as an outlier, the standard deviations remain relatively high, illustrating the degree of variation across the data-set. Of the lone-actor plots, 76 per cent failed to cause any fatalities, while 58 per cent caused not even injuries. These findings underline that while a few lone-actor terrorist attacks can be devastating, a high proportion of plots fail to cause major human loss. Casualty rates were also examined within ideological sub-groups: including the attack by Breivik, it was found that right-wing attacks caused 260 injuries and ninety-four fatalities[6], while religiously inspired attacks killed 16 people and injured 65 more. These results mirror findings across the West more broadly, where 80 per cent of deaths from lone-actor terrorism have been attributed to right-wing extremists, nationalists, anti-government elements or other forms of political extremism, rather than religiously inspired terrorism.[7]

Civilians are the most common target of plots in the data-set (35 per cent) –many of them are from specific ethnic and religious minorities, are asylum seekers and immigrants. A large majority of religious targets were Muslim. More than one third of lone-actors who targeted civilians were religiously inspired (37 per cent), followed by right-wing perpetrators (25 per cent) and school shooters (20 per cent).

The most frequent types of weapons used by perpetrators were firearms (31 per cent), various types of weapons (21 per cent), explosives (17 per cent) and bladed weapons (such as a knife, machete or axe – 12 per cent). While 92 per cent of bladed-weapons plots and 100 per cent of identified firearms plots led to actual attacks, this was not the case for explosives plots (45 per cent successful). These findings perhaps illustrate the difficulties of acquiring and producing explosives without detection. On the other hand, plots utilizing only firearms or bladed weapons require less planning and present fewer opportunities for law enforcement to intervene.

Moreover, even in those cases where explosives plots lead to detonations, their lethality is low, perhaps due, in part, to the difficulties in successfully producing an effective explosive. The lethality of explosives was found to be 0.57 fatalities per attack, in contrast to 6.65 for firearms attacks.[8] Across the database, explosives account for only 4 per cent of fatalities, in stark contrast to the 89 per cent caused by firearms. Interestingly, bladed weapons also had a low lethality at 0.36, accounting for only 2 per cent of deaths, illustrating that although such lone-actor terrorist attacks may be difficult to detect and disrupt, they do not often result in major casualties figures.

An analysis of weapons used across the ideological spectrum found that there were no substantial differences; however, there were clear differences between countries. While lone-actor terrorist plots in Great Britain led to 2 fatalities and 17 injuries, none of these were caused by firearms. In contrast, four attacks using firearms in France caused nineteen fatalities and thirty-two injured, accounting for 95 per cent of fatalities and 53 per cent of injuries in that country. In Germany, all five lone-actor terrorist attacks were carried out with firearms. It is interesting to note that firearms attacks were more prominent in countries with higher rates of legal gun ownership; the UK (Great Britain and Northern Ireland) has only 6.5 legally held firearms per 100,000 inhabitants, compared with approximately 30 per 100,000 people in France and Germany.[9]

Overall, our findings suggest that lone-actor terrorist attacks using firearms are more likely to occur in countries with higher rates of legal gun ownership. These also cause more fatalities than attacks using explosives or bladed weapons. Interestingly, across the data-set, 38 per cent of the firearms used in attacks were legally owned.

The CLAT literature review highlighted findings from previous research, a number of which were explored through the database. One such finding was that the level of military experience among lone-actor terrorists is higher than might be expected within the general population.[10] It was also hypothesised that individuals with military training or combat experience may be more 'effective' in conducting their attack, causing greater numbers of fatalities. This is supported by other studies of terrorism.[11] Within the CLAT database, the lethality of perpetrators with military training was 2.29 fatalities per individual, markedly higher than their counterparts without such experience at 1.47; if Breivik is removed as an outlier, the lethality of non-military perpetrators drops further to just 0.68.

This raises an important issue: the most lethal lone-actor terrorist in the database, Breivik, had no military training; the absence of military experience can therefore not be considered a conclusive indicator that a perpetrator is less dangerous. Therefore, while these findings do offer some support for the hypothesis that, on average, military training or experience increases the lethality of lone-actor terrorists, it is clear that other factors must also be taken into account.

We found that attacks planned by those with military training or experience were prevented in only 18 per cent of cases, a substantially lower proportion than the 36 per cent of perpetrators who had no comparable training or experience. While it is not possible to establish causality, one plausible interpretation could be that such experience may also have increased their ability to avoid detection during the planning and development stages.

Process Variables: Political Engagement and Online Activity

The suspected ideology of the perpetrators was determined by reports from media coverage or from information that emerged during court proceedings. 86 out of the 120 perpetrators in the database were either religiously inspired (38 per cent) or right-wing extremists (33 per cent), together they accounted for almost three out of four lone-actor terrorists during this time period. Given the intense public preoccupation with religiously inspired terrorism, the finding that right-wing extremists account for an almost similar proportion of perpetrators within the database is remarkable.

In 73 per cent of cases, perpetrators had offered oral or written justifications for their actions[12]; however, the format of these expressions differed substantially. Only sixteen perpetrators (13 per cent) wrote and published a detailed manifesto, either online or written on paper. While such documents can potentially offer detailed insights into the perpetrator's radicalisation, the development of attack plans and preparatory actions, such testimonies are comparatively rare. The pre-attack publication of a manifesto is therefore likely to offer opportunities for intervention in only a limited number of lone-actor plots. In other cases, perpetrators either harnessed the immediacy and reach of social media to publish media files or text documents just a few hours prior to their attacks, or alternatively made significant oral statements just before the attack or during arrest.

Unsurprisingly, the motivations expressed vary greatly across the ideologies represented in the data-set. Perpetrators appeared to harbour a broad range of disgruntlements with sectors of the public, governments or social movements, or they manifested anger over specific events (either personal or political) for which they were seeking retribution.

Among the right-wing perpetrators in the data-set, there was a strong emphasis on immigration issues, a wish to inspire patriotism and to defend their country from alleged 'Islamisation'. This reflects a shift within the broader right-wing extremism, with many groups and individuals denouncing National Socialism, Fascism and anti-Semitism; instead, they define their cause as defence against a perceived threat from Islam. [13] However, there remains a significant portion of lone-actor terrorists in the database who appear to have been preoccupied solely with neo-Nazi symbolism and the idolisation of far-right figureheads. Examining the influence of specific events, in Great Britain, there are indications that following the murder of Lee Rigby, 47 per cent of right-wing perpetrators were in part motivated by that attack. These cases of revenge include arson attacks and bombings of Islamic centres.

Within the religiously inspired cohort, there are numerous references to taking revenge for political action, such as Western Europe's foreign policy in the Middle East in the aftermath of 9/11, the national government's support for Israel, the treatment of terror suspects imprisoned in Abu Ghraib or retribution for cartoons that depicted the Prophet Muhammad. These references are complemented by attempts to justify their intentions on the basis of the alleged religious obligation to wage a violent *jihad*.

The majority of lone-actor terrorists in the data-set (58 per cent) did not appear to be previously politically active.[14] Of those that were politically engaged, 43 per cent had attended meetings and rallies, while 47 per cent had conducted their relationship with their reference group solely through literature and online materials. However, it should be noted that this latter form of engagement is likely to have grown in recent years in line with the rise of social media and the availability of extremist materials in downloadable multimedia format on personal computers. Indeed, 50 per cent of perpetrators conducted at least part of their engagement in a virtual online setting. In some of these cases this involved the downloading of videos, images and literature as well as online interaction on official forums and web pages.

Within ideological categories, right-wing lone-actor terrorists were more likely to be politically active (62.5 per cent) than their religiously inspired counterparts (44.3 per cent). Approximately two-thirds of the perpetrators (67 per cent) had never before been active in an extremist group. Where connections had been

established, 65 per cent of links (or 22 per cent of the overall database) were with extremist groups known to advocate or at least condone violence to advance their cause. These would typically be groups with a known history of involvement in violent attacks, groups which are illegal in the country in which they operate. Moreover, 69 per cent of these links to violent groups (or 15 per cent of the overall database) were of recent date at the time of the attack. While the overall level of engagement with extremist groups is low, these findings suggest there is perhaps a need for greater surveillance of groups which advocate violence as well as those who interact with them. Although religiously inspired lone actors were more likely to have a link to an extremist group, the range of organisations linked to right-wing perpetrators was greater.

Within the database, examples of online activity included using the Internet to form relationships with others, to gain the inspiration for the attack or to acquire technical know-how. In recent years, the role of the internet and social media have been particularly prominent in public discourses around lone-actor terrorism. [15] Chronological analysis of the CLAT database shows a steady increase in the use of mainstream social media platforms in plots. This took off from around 2004 onwards, as platforms became established, grew in popularity and diversified in capabilities.

Prior to the popularisation of mainstream social media, password-protected forums and themed blogs were the most prevalent form of communication for the perpetrators. Many of the small cells (dyads or triads) met on such platforms, where they created their own space to discuss and solidify their attack plans.

Where perpetrators have primarily engaged through social media platforms, the information gathered overwhelmingly indicates a one-way relationship – reading and sharing relevant news, and expressing opinions, rather than utilising these platforms to form connections with other people.

The Internet was used for tactical knowledge acquisition in just under one third of all cases (33 per cent), in the form of downloading manuals, watching training videos, or undertaking basic reconnaissance such as researching the floorplan of a building, finding addresses or searching for lists of individuals in order to identify potential targets. Twenty-one out of the thirty-nine perpetrators who used the Internet to prepare their attack downloaded training manuals (54 per cent), including *The Anarchist's Cookbook* (referenced in six cases), *The Jolly Roger Cookbook* and *The Complete Improvised Kitchen*, which provide instructions for the construction and detonation of explosives. Of these twenty-one cases, only ten successfully launched attacks using explosives; most of the remainder were thwarted by the authorities. Of these ten bombings, only one directly caused fatalities – Anders Breivik's bombing in downtown Oslo which killed 8 people. This outcome raises some questions over the accuracy of training manuals for bomb-making at home.

The proportion of perpetrators who watched training videos appears relatively small (only 5 cases). However, this is likely to become more significant over time given the centrality of training and propaganda videos for some extremist organisations.

Process Variables: Leakage and Interactions with Authorities

Changes in behaviour can be crucial indicators that an individual is becoming more extreme in his or her views or is considering acts of violence in the near future. The CLAT database was therefore designed to also capture this type of information. Variables recorded whether open source information indicated a change in the perpetrator's behaviour in the period leading up to the (planned) attack, along with any available details regarding both the nature of the lone actor's behaviour and the context in which it was noted.

Overall, 34 per cent of lone-actor terrorists exhibited a change in behaviour. Moreover, these changes were more prevalent among religiously inspired lone-actor terrorists: 50 per cent of perpetrators in this category exhibited behavioral changes, as opposed to only 15 per cent of right-wing terrorist plotters. Examples of

such behaviour include becoming increasingly distant from family members, manifesting sudden and drastic changes in attitude, as well as more specific ones like changing from one social groups to another.

The term 'leakage' was used in the CLAT project to denote situations where the perpetrator has given one or more indications of extreme views or an expressed his intention to act to a third party; such indicators could be intentional or shown unwittingly. Leakage may be limited to behavioural changes but can also be much broader: in some extreme cases it involved outright declarations of an intention to commit a terrorist act.

Variables captured whether or not leakage occurred, its nature and the audience. Overall, 46 per cent of perpetrators exhibited leakage; this level of leakage was consistent for both religiously inspired and right-wing actors, with no significant variation. Leakage took various forms: in 35 per cent of cases it gave an indication of the perpetrator's extremist ideology, but nothing further—for example, in the form of expressing extreme views to friends and family, or being seen to access extremist websites.

In 44 per cent of cases the perpetrator went further and 'leaked' some indication of an intention to act. In some examples this was deliberate, posting online that he or she planned to become a martyr, telling colleagues or sending information to the media. In other cases this was done unwittingly; those around one perpetrator realised he was experimenting with explosives when he was seen with suspicious injuries, while another failed to dispose of receipts for chemicals which were subsequently found by family members.

In 21 per cent of cases the perpetrator shared at least some details of the planned attack with others. In one example the lone actor told his ex-girlfriend and showed her the weapons in his bag; in another case he informed his parents, while a third lone actor leaked attack details to a third party whom the individual was trying to recruit.

There were striking differences between ideological groups with regard to the audience of the leakage. Religiously inspired lone-actor terrorists were most likely to leak information to friends or family (45 per cent), expressing extreme views to those in their immediate vicinity. In contrast, only 18 per cent of leakage by right-wing extremists was to this audience.

Right-wing lone-actor terrorists were more likely to post telling indicators online; it was on the internet, where 41 per cent of their leakage occurred. Examples include a perpetrator who left a message on the internet forum of a known far-right group, Combat 18: 'Watch TV on Sunday, I will be the star. Death to ZOG! 88!' [16] Another lone actor had joined a number of far-right groups on Facebook including Bloc Identitaire (formerly Unité Radicale), Maison Commune and Belle et Rebelle.

The research team originally thought that younger perpetrators might be more careless in revealing their extremist beliefs or attack plans. However, analysis suggested no such correlation between young age and leakage. Similarly, there was no correlation with mental-health issues: where there was an indication of mental-health issues those perpetrators were no more likely to exhibit leakage.

The timeframe in which leakage occurred was also investigated, in order to ascertain any patterns and to determine whether leakage allowed sufficient time for detection and intervention. Unfortunately, this type of information was either unavailable or unclear in too many cases. Nevertheless, the database provides useful insights into the prevalence of leakage, its nature and, crucially, the audiences that are most likely to encounter be informed in one way or the other.

Variables were also designed to capture whether the perpetrator had been known previously to public authorities such as mental-health practitioners, social-welfare services or law-enforcement bodies. Separate variables recorded whether the engagement (or investigation) was current at the time of the attack or intervention.

Convictions offer clear evidence of interaction with law enforcement; moreover, the project's literature review highlighted findings from previous studies that showed an elevated level of previous convictions among lone-actor terrorists.[17] These findings were reinforced by data from the CLAT database. It contained evidence to the effect that 33 per cent of perpetrators had a previous criminal sanction; among right-wing extremists, this figure rose to 40 per cent. These figures are notably higher than those for the general population (e.g. in the UK it is estimated that 20 per cent of all adults have a criminal conviction).[18] Although certainly an interesting finding, without examining the nature of any previous convictions and whether these overlap with—or far predate—the perpetrator's terrorist activity, it is not possible to determine whether they offer an opportunity to identify and disrupt plots. Unfortunately, more detailed information regarding interaction with authorities was often unavailable or inconclusive.

Such data limitations also precluded extensive quantitative analysis across the database; however, some trends were nevertheless apparent. Overall, 75 per cent of religiously inspired plots led to an attack, in contrast to 55 per cent of right-wing plots. This disparity could indicate that religiously inspired perpetrators are more effective than their right-wing counterparts. Alternatively, it could indicate that law enforcement efforts are more successful in identifying right-wing extremists; however, further examination appears to preclude this. Excluding cases where a perpetrator was identified during (or immediately following) an incident, it was established that 40 per cent of right-wing extremists were caught by chance, either as part of an investigation into other offences or because the perpetrator accidentally detonated a device, thereby drawing attention to his or her activities.

One perpetrator sustained serious injuries while testing a device and was airlifted to hospital; the nature of his injuries roused suspicions and a search of his home revealed the presence of additional explosive devices. The bomb-making activities of another perpetrator were discovered when his home was searched as part of an investigation into the possession of child pornography. In a third case, a perpetrator's terrorist activity was uncovered following his arrest for public-order offences—he had urinated on a train platform. These examples stand in stark contrast to religiously inspired cases. Although chance discovery was also evident in some cases—with one perpetrator being identified following a routine traffic stop and another having accidentally detonated a device—overall 88 per cent of interventions were intelligence-led.[19] This disparity suggests that intelligence machinery may be more finely attuned to detecting religiously inspired lone-actor terrorists in comparison to their right-wing counterparts.

Conclusion

Analysis of the CLAT database reaffirms a key finding from the literature review: there is no single and consistent profile of a lone-actor terrorist. However, systematic analysis of cases from across Europe has provided valuable insights into the scale of the threat, the ways in which it is most likely to manifest itself, and the activities of lone-actor terrorists in the period leading up to the attack. The policy implications of these findings have been explored in detail in some other reports in the CLAT series.[20]

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Acknowledgements

This project was co-funded by the Prevention of and Fight against Crime Programme of the European Union and the Dutch National Coordinator for Security and Counterterrorism (NCTV). Partnering institutions include RUSI, Chatham House, the Institute for Strategic Dialogue (ISD), Leiden University and the International Centre for Counter-Terrorism (ICCT). The research team are also grateful for the support of associate partners, the Association of Chief Police Officers (ACPO, now the National Police Chiefs' Council, NPCC) in the UK and the Polish Institute of International Affairs (PISM).

Notes

- [1] See also Clare Ellis et al., "Analysis Paper", *Countering Lone-Actor Terrorism Series No. 4* (Royal United Services Institute for Defence and Security Studies, 2016), https://rusi.org/sites/default/files/201602_clat_analysis_paper.pdf.
- [2] Jeanine de Roy van Zuijdewijn and Edwin Bakker, "Analysing Personal Characteristics of Lone-Actor Terrorists: Research Findings and Recommendations", *Perspectives on Terrorism* Vol. 10. No. 2 (2016).
- [3] Raffaello Pantucci, Clare Ellis and Lorien Chaplais, "Literature Review" *Countering Lone-Actor Terrorism Series No. 1* (Royal United Services Institute for Defence and Security Studies, 2015), https://rusi.org/sites/default/files/201512_clat_literature_review_0.pdf. The authors are grateful to the advisory board for their input, in particular to Dr Paul Gill who shared insights from his on-going research at the CLAT project kick-off meeting in London, September 2014.
- [4] For further discussion regarding this definition and how it was established, see Edwin Bakker and Jeanine de Roy van Zuijdewijn, "Lone-Actor Terrorism. Definitional Workshop", *Countering Lone-Actor Terrorism Series No. 2* (Royal United Services Institute for Defence and Security Studies, 2015), https://rusi.org/sites/default/files/201512_clat_definitional_workshop.pdf.
- [5] Entries in the Countering Lone-Actor Terrorism (CLAT) database were made against perpetrators rather than attacks; as a result, the bombings of government buildings in the centre of Oslo and the shootings on the island of Utøya by Anders Breivik in 2011 were recorded in a single entry.
- [6] Right-wing plots resulted in eighteen injuries and seventeen fatalities if the Breivik case is excluded as an outlier.
- [7] Institute for Economics and Peace, *Global Terrorism Index 2015* (Sydney, New York, NY and Mexico: Institute for Economics and Peace, 2015).
- [8] To be as comprehensive as possible, in calculating lethality rates the fatalities from 'multiple- weapon' attacks have been included where it was possible to definitively attribute casualties.
- [9] European Commission, 'Communication from the Commission to the Council and the European Parliament: Firearms and the Internal Security of the EU: Protecting Citizens and Disrupting Illegal Trafficking', COM(2013) 716, 21 October 2013.
- [10] Pantucci, Ellis and Chaplais, 'Lone-Actor Terrorism: Literature Review'.
- [11] See Brian Michael Jenkins, 'We include extremist groups.'
- [12] In the 28 per cent of cases where such explicit justification was not present, motivations were often brought to light during trials with the discovery of evidence or material possessions – hence these cases still warranted inclusion in the data-set.
- [13] Toby Archer, 'Breivik's Mindset: The Counterjihad and the New Transatlantic Anti-Muslim Right'; in: Max Taylor, P M Currie and Donald Holbrook (Eds), *Extreme Right-Wing Political Violence and Terrorism* (London: Bloomsbury, 2013), pp. 169–86.
- [14] The variable of political engagement takes into account the perpetrator's involvement in, or membership of, both mainstream political parties and informal political movements. This can also include extremist groups.
- [15] See Anne Aly, 'The Terrorists' Audience: A Model of Internet Radicalisation', *Journal of Australian Professional Intelligence Officers* Vol. 171 (2009), pp. 3–19; Ines von Behr et al., 'Radicalisation in the Digital Era: The Use of the Internet in 15 Cases of Terrorism and Extremism', RAND Corporation, 2013.
- [16] ZOG is an abbreviation for Zionist Occupation Government, while "88 is used to represent 'Heil Hitler', as 'H' is the eighth letter of the alphabet.
- [17] Pantucci, Ellis and Chaplais, "Lone-Actor Terrorism: "CLAT Literature Review".
- [18] Stephen Howard, "Ban the Box" Campaign Asks Employers to Give Ex-Offenders a Chance', *The Guardian*, 17 October 2013.
- [19] Excluding cases where a perpetrator was identified during (or immediately following) an incident.
- [20] See Jeanine de Roy van Zuijdewijn and Edwin Bakker in this issue of Perspectives on Terrorism; see also Simon Palombi and Benoît Gomis, "Policy Paper 2: Attack Methodology and Logistics", *Countering Lone-Actor Terrorism Series No. 6* (Royal United Services Institute for Defence and Security Studies, 2016), <https://www.chathamhouse.org/sites/files/chathamhouse/publications/research/2016-02-29-lone-actor-terrorism-attack-methodology-logistics-palombi-gomis-final.pdf>; Melanie Smith, Sabine Barton and Jonathan Birdwell, "Policy Paper 3: Motivations, Political Engagement and Online Activity", *Countering Lone-Actor Terrorism Series No. 7* (Institute for Strategic Dialogue, 2016), <http://www.strategicdialogue.org/wp-content/uploads/2016/02/CLAT-Policy-Paper-3-ISD.pdf>; Clare Ellis and Raffaello Pantucci, "Policy Paper 4: 'Leakage' and Interaction with Authorities", *Countering Lone-Actor Terrorism Series No. 8* (Royal United Services Institute for Defence and Security Studies, 2016), https://rusi.org/sites/default/files/201602_clat_policy_paper_4.pdf.