



## Lone-Actor Attacks and Organizational Connection: An Analysis of al Qaeda and Daesh Inspired Attacks in the European Union Zone

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**Abstract:** *One of the main arguments in the terrorism studies literature is about the validity of the lone actors. While some studies defend that the definition of lone actor to be an oxymoron because it contradicts the generally accepted definition of terrorism, others argue that lone actors are very real. In this article, it is argued that lone actors have some distinct characteristics and that is why they are a real threat to European security. These features are theorized within the framework of the organizational connection variable, and the differences between lone actor and other organized attacks are examined. According to both statistical and descriptive analysis of these attacks, it is concluded that lone actor attacks are used as a conscious strategic choice by al Qaeda and Daesh leadership because of their unique characteristics.*

**Keywords:** *Lone Actors, Organizational Connection, al Qaeda, Daesh, European Union*

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## 1. Introduction

Al Qaeda- and Daesh-inspired terrorist attacks have become one of the top threat priorities for Europe in the first quarter of the 21st century.<sup>2</sup> These attacks have different characteristics within the framework of organizational connection. In particular, a certain number of attacks were committed by aggressors without direct organization linkage. This situation has led to discord among researchers about the role of lone actors in the attrition strategy of al Qaeda and Daesh. While some researchers argue for the validity of lone actors, others argue that no actor is truly alone.<sup>3</sup>

Lone-actor studies are an important research topic in the terrorism literature. The interest of the academic community and the security bureaucracy in the concept of the lone actor has rapidly increased since the beginning of the 2000s. Conflicts in Afghanistan, Iraq, Syria, and Libya have been spread in Europe and the USA in the form of terrorist attacks, and lone actors have become one of the prominent threat scenarios. Due to the frequent utilization of this type of attack, the attention of researchers has also incrementally increased throughout the 21<sup>st</sup> century. According to one study, between 2009 and 2012, an average of 300 articles began to be published every year in major sources in English, and this number exceeded 1000 in 2016.<sup>4</sup> These studies examine dimensions such as: motive,<sup>5</sup> demographic features,<sup>6</sup> the role of mental illness,<sup>7</sup>

<sup>2</sup> According to the Global Terrorism Database, a total of 872 people were killed in Al-Qaeda and Daesh perpetrated/inspired terrorist attacks between 2001-2017 in Europe.

<sup>3</sup> This debate is detailed in the fourth part of the article.

<sup>4</sup> Jason Burke, "The Myth of the 'Lone Wolf' Terrorist", *The Guardian*, (30 March 2017), available at <https://www.theguardian.com/news/2017/mar/30/myth-lone-wolf-terrorist#img-4> (Accessed 03 March 2021)

<sup>5</sup> Jeffrey Kaplan, Helene Lööw and Leena Malkki, "Introduction to the Special Issue on Lone Wolf and Autonomous Cell Terrorism", *Terrorism and Political Violence* 26(1) (2014), pp.1-12; Matthew Feldman, "Comparative Lone Wolf Terrorism: Toward a Heuristic Definition", *Democracy and Security* 9(3) (2013), pp.270-286; Jeff Gruenewald, Steven Freilich, Joshua Chermak, "Distinguishing 'Loner' Attacks from Other Domestic Extremist Violence A Comparison of Far-Right Homicide Incident and Offender Characteristics", *American Society of Criminology Criminology & Public Policy* 12(1) (2013), pp.65-91; Randy Borum, "Loner Attacks and Domestic Extremism Informing Lone-Offender Investigations", *Criminology & Public Policy*, 12(1) (2013), pp.103-112; Sarah Teich, "Trends and Developments in Lone Wolf Terrorism in the Western World an Analysis of Terrorist Attacks and Attempted Attacks" (IDC Herzliya International Institute of Counter Terrorism October 2013).

<sup>6</sup> Clark Mccauley, Sophia Moskalenko and Benjamin Van Son, "Characteristics of Lone-Wolf Violent Offenders: A Comparison of Assassins and School Attackers", *Perspectives on Terrorism* 7(1) (2013), pp.4-24; Paul Gill, John Horgan and Paige Deckert, "Bombing Alone: Tracing the Motivations and Antecedent Behaviors of Lone-Actor Terrorists" *Journal of Forensic Sciences* 59(2) (2014), pp.425-435.

<sup>7</sup> Emily Corner, Paul Gill, and Oliver Mason, "Mental Health Disorders and the Terrorist: A Research Note Probing Selection Effects and Disorder Prevalence" *Studies in Conflict & Terrorism* 39(6) (2016), pp.560-568.

modus operandi,<sup>8</sup> target selection,<sup>9</sup> terrorism–crime nexus<sup>10</sup> and organizational connection.<sup>11</sup> They aim to conceptualize this phenomenon by creating various typologies and determine the common characteristics of lone actors.<sup>12</sup> Many of these studies are empirical. Some of them use small-N analysis on selected cases;<sup>13</sup> others try to determine common lone-actor characteristics using large-N analysis.<sup>14</sup> The terminology of the lone-actor phenomenon also differs among these

- <sup>8</sup> Ramon Spaaij, “The Enigma of Lone Wolf Terrorism: An Assessment” *Studies in Conflict & Terrorism* 33(9) (2010), pp.854–870; Petter Nesser, “Single Actor Terrorism: Scope, Characteristics and Explanations”, *Perspectives on Terrorism* 6(6) (2012), pp.61–73.
- <sup>9</sup> Zoe Marchment, Noémie Bouhana and Paul Gill, “Lone Actor Terrorists: A Residence-to-Crime Approach”, *Terrorism and Political Violence*, 32(7) (2018), pp.1–16.
- <sup>10</sup> Rajan Basra, Peter Neumann and Claudia Brunner, “Criminal Pasts, Terrorist Futures: European Jihadists and the New Crime-Terror Nexus, The International Centre for the Study of Radicalisation and Political Violence (ICSR) 2016).
- <sup>11</sup> Peter Phillips, Gabriela Pohl, “Economic Profiling of the Lone Wolf Terrorist: Can Economics Provide Behavioral Investigative Advice?”, *Journal of Applied Security*, 7(2) (2012), pp.151–177, p.174. Rodger Bates, “Dancing with Wolves: Today’s Lone Wolf Terrorists”, *The Journal of Public and Professional Sociology*, 4(1) (2012), pp.1–14., p.8–9; Raffaello Pantucci, “Developments in Radicalisation and Political Violence A Typology of Lone Wolves: Preliminary Analysis of Lone Islamist Terrorists”, (King’s College International Centre for the Study of Radicalisation and Political Violence 2011), p.14.; “The Threat From Solo Terrorism and Lone Wolf Terrorism”, (Politiet’s Efterretningstjeneste Center For Terroranalyse 2011), p.3; Randy Borum, Robert Fein and Bryan Vossekuil, “A Dimensional Approach to Analyzing Lone Offender Terrorism”, *Aggression and Violent Behavior*, 17(5) (2012), pp.389–396, p.389–396; Sebastien Feve, Kelsey Bjornsgaard, “Countering Lone-Actor Terrorism Series No. 3”, (Royal United Services Institute for Defence and Security Studies Lone-Actor Terrorism Database Workshop 2016).; Bart Schuurman, Edwin Bakker, Paul Gill, and Noemie Bouhana, “Lone Actor Terrorist Attack Planning and Preparation: A Data-Driven Analysis”, *Journal Forensic Sciences*, 63(1) (2017), pp.1191–1200; Caitlin Clemmow, Noémie, Bouhana and Paul Gill, “Analyzing Person-Exposure Patterns in Lone-Actor Terrorism”, *Criminology & Public Policy*, 19(2) (2019), pp.1–31.
- <sup>12</sup> The Terrorist Radicalization Assessment Protocol-18 / TRAP-18, developed by the Global Institute of Forensic Research to create a common lone actor typology, also has an important place in the current literature. See J. Reid Meloy, Paul Gill, “The Lone-Actor Terrorist and the TRAP-18”, *Journal of Threat Assessment and Management*, 3(1) (2016), pp.37–52, p.39.
- <sup>13</sup> David Hofmann, “How ‘Alone’ are Lone-Actors? Exploring the Ideological, Signaling, and Support Networks of Lone-Actor Terrorists”, *Studies in Conflict & Terrorism*, 43(7) (2018), p.7; Thomas Holt, Joshua Freilich, Steven Chermak, Colleen Mills and Jason Silva, “Loners, Colleagues, or Peers\_ Assessing the Social Organization of Radicalization”, *American Journal of Criminal Justice*, 22(1) 2018, pp.83–105; Petter Nesser, Anne Stenersen and Emilie Oftedal, “Jihadi Terrorism in Europe: The IS-Effect”, *Perspectives on Terrorism*, 10(6) (2016), pp.3–24.
- <sup>14</sup> Brent Smith, Jeff Gruenewald, Paxton Roberts and Kelly Damphousse, “The Emergence of Lone Wolf Terrorism: Patterns of Behaviour and Implications for Intervention”, *Sociology of Crime, Law and Deviance*, 20 (2015), pp.89–110; Mark Hamm, Ramon Spaaij, “Lone wolf Terrorism in America: Using Knowledge of Radicalization Pathways to Forge Prevention Strategies”, (U.S. Department of Justice 2015); Jeff Gruenewald, William Pridemore, “A Comparison Of Ideologically-Motivated Homicides from the New Extremist Crime Database and Homicides from the Supplementary Homicide Reports Using Multiple Imputation by Chained Equations to Handle Missing Values”, *Journal of Quantitative Criminology*, 28(1) (2012), pp.141–162; Clare Ellis, Raffaello Pantucci, Jeanine de Roy van Zuijdewijn, Edwin Bakker, Benoît Gomis, Simon Palombi and Melanie Smith, “Lone-Actor Terrorism: Analysis Paper” (Royal United Services Institute 2016).; John Horgan, Paul Gill, Noemie Bouhana, James Silver and Emily Corner, “Across the universe? A Comparative Analysis of Violent Behavior and Radicalization Across Three Offender Types with Implications for Criminal Justice Training and Education”, (National Institute of Justice 2016); Gill, et. al. Ibid.; Schuurman et. al., Ibid.

studies. Due to its adoption by the media, the most popular usage is the term lone wolf. On the other hand, there is a general opinion that the term lone wolf should not be used because of its honorific connotation. Suggested alternatives include lone actor<sup>15</sup>, lone offender,<sup>16</sup> and terrorists acting alone.<sup>17</sup> In this study, the term lone actor is used.

This article's main research topic is the organizational connection of al Qaeda- and Daesh-related attacks. The purpose is to explore whether the attacks carried out by al Qaeda and Daesh can be classified as lone-actor attacks. The hypothesis is that some of these attacks were committed under organizational isolation (ideological and operational) and that is why they can be classified as lone-actor attacks. These isolated attacks differ dramatically from other high-profile organized suicide attacks not only in the variable of organizational connection but also in the dimensions of legal status, tactics, and mental health. Due to these unique characteristics, lone actors manage to paralyze security bureaucracy on many occasions. To operationalize this hypothesis, the data of EUROPOL's Annual European Union Terrorism Situation and Trend Reports are used.<sup>18</sup> That is why the study is limited by the European Union zone. The methodology is based on large-N analysis and the interpretation of statistical data.

The article consists of four main parts. In the next part, the strategic logic of lone-actor attacks is explained. In this manner, the importance of lone actors in terrorism studies and why these isolated attackers create an important global security threat is also stated. In the third part, the role of lone actors in the strategy of al Qaeda and Daesh is examined. Accordingly, historical background of these attacks is investigated. In the fourth part, the theoretical framework of organizational connection is constituted and the difference between narrow and broad conceptualizations is explained. In the last part, the al Qaeda- and Daesh-related attacks in the European Union zone are analyzed and the findings are discussed. The findings are concentrated on the mental illness, crime nexus, legal statuses, target choices, and tactics.

<sup>15</sup> "Joint Publication 3-26 Counterterrorism", (U.S. Army 2009); Edwin Bakker, Jeanine de Roy van Zuijdewijn, "Countering Lone-Actor Terrorism Series No. 2.", (Royal United Services Institute for Defence and Security Studies Lone-Actor Terrorism Definitional Workshop 2015).

<sup>16</sup> <https://www.fbi.gov/investigate/terrorism>

<sup>17</sup> "Bringing Terrorists to Justice: Challenges in the Prosecution of Terrorists Acting Alone or in Small Cells", (United Nations 2015). [https://www.un.org/sc/ctc/wp-content/uploads/2015/09/S\\_2015\\_123\\_EN.pdf.%](https://www.un.org/sc/ctc/wp-content/uploads/2015/09/S_2015_123_EN.pdf.%) (Accessed 03 October 2020)

<sup>18</sup> The annual European Union Terrorism Situation & Trend Reports can be accessed from EUROPOL's web site. <https://www.europol.europa.eu/publications-events/main-reports/tesat-report>

## **2. The Strategic Logic of Lone Actor Attacks**

Lone-actor attacks are not just about tactical choices. As these attacks are remotely inspired and sometimes directed by the leadership cadre of terrorist organizations, it is also a strategic choice for terrorist organizations. The main aim of these attacks is to utilize difficulties experienced by intelligence units in detecting the attackers, who do not establish organizational contact at the ideological and operational levels. Lone actors have a high level of operational security against penetrations and therefore became an effective option for terrorist organizations. Besides, by using the lone actors, terrorist organizations such as al Qaeda and Daesh extended their activities beyond conflict zones.

On the other hand, lone-actor attacks are more improvised, and simpler, since they are usually handled by people who do not have sufficient technical-tactical experience and logistics. In fact, this is a profit and loss balance. The limited experience and logistics are one of the main sources of operational security. Lone actors, who do not enter the organizational hierarchy and go directly to the action phase, leave very small footprints behind them and are able to bypass preventive measures of security and intelligence agencies. Even after the attack, it may not be possible to determine whether the attacker has any organizational connection or not.

It can be said that the lone actors are attackers who commit crimes on behalf of the organization, although they are not legally members of the organization. Although their victims are random and that is why their motivation is political, there is not any significant organizational connection with a terrorist group. They radicalize and become operational without any physical contact from overseas. Unlike traditional organizational structures, the operational process develops from the bottom up, not from the top down. Operational directions are given by organizational ideologists and media organizations using open sources. Due to the high level of exposure, it is not possible to determine who has become operational by taking these instructions seriously. For this reason, although there were signs of radicalization in many examples, legal action could not be carried out.

The most important task of intelligence agencies is warning against attacks. They can do this by exploiting their technical and human assets in a terrorist organization. Lone actors have the potential to paralyze this sequence. Due to the minimum level of organizational engagement, lone actors do not give signals before attacking. Even if there are signals, they are lost in the noise. Because of this weak link, it is assumed that it is impossible to prevent them

completely.<sup>19</sup> There are even views stating that security forces should focus on preventing more organized and dangerous attacks, such as the 9/11 attacks, rather than those perpetrated by these isolated actors.<sup>20</sup>

*The low signal-to-noise ratio is also emphasized by the authorities. Chief of General Staff of the Israel Defense Forces General Gadi Eizencott stressed that, “there were no warnings about suicide stabbing attacks. Israel faced 101 such events in the past three months, but we did not have even one single warning”.*<sup>21</sup> In his statement to the Senate Intelligence Committee in 2010, CIA Director Leon Panetta said, *“The biggest threat is not so much that we face an attack like 9/11. It is that al Qaeda is adapting its methods in ways that oftentimes make it difficult to detect... it’s the lone-wolf strategy that I think we have to pay attention to as the main threat to this country”.*<sup>22</sup> FBI Director Robert Mueller, in his statement to the Intelligence Committee in 2003, stated that the actions of lone actors are very difficult to predict and therefore form a major security threat.<sup>23</sup> The threat posed by lone-actor terrorism is also revealed by MI5 President Andrew Parker. While responding to the criticisms about the inability to prevent attacks such as Parker, Westminster, Manchester, and London Bridge, he said, *“that threat (lone actors) is multi-dimensional, evolving rapidly and operating at a scale and pace we’ve not seen before... It’s at the highest tempo I have seen in my 34-year career. Today there is more terrorist activity, coming at us more quickly, and it can be harder to detect.”*<sup>24</sup> It is also emphasized that MI5 was tracking approximately 3000 radicals in 2017 as terror suspects.<sup>25</sup>

<sup>19</sup> Spaaij, *Ibid.*, p.867.; Edwin Bakker, Beatrice de Graaf, “Preventing Lone Wolf Terrorism: Some CT Approaches Addressed”, *Perspectives on Terrorism*, 5(5-6) (2011), pp.43-50; Brian Jenkins, “Stray Dogs and Virtual Armies Radicalization and Recruitment to Jihadist Terrorism in the United States Since 9/11”, (RAND 2011); PET CTA, *ibid.*, p.3.

<sup>20</sup> Beau Barnes, “Confronting the one-man Wolf Pack: Adapting Law Enforcement and Prosecution Responses to the Threat of Lone Wolf Terrorism”, *Boston University Law Review*, (92) (2012), pp.1613-1662.

<sup>21</sup> Gili Cohen, “Eizencott: Out of 101 Knives Attacks We Did Not Have Even One Warning,” Haaretz (18 January 2016), <http://www.haaretz.co.il/news/politics/1.2824704> (Hebrew) cited in Avner Barnea, “Challenging the ‘Lone Wolf’ Phenomenon in an Era of Information Overload”, *International Journal of Intelligence and Counterintelligence*, 31(2) (2018), pp.217-234, p.221

<sup>22</sup> “CIA Chief: Al Qaeda Poised to Attack U.S.”, CBS (2010) available at <https://www.cbsnews.com/news/cia-chief-al-qaeda-poised-to-attack-us/>. (accessed 05 June 2020).

<sup>23</sup> Robert Mueller, “War on Terrorism”, (Testimony before the Select Committee on Intelligence of the United States Senate 2003), available at <https://archives.fbi.gov/archives/news/testimony/war-on-terrorism> (accessed 12 November 2020).

<sup>24</sup> “UK Facing Most Severe Terror Threat Ever, Warns MI5 Chief”, *The Guardian*, available at <https://www.theguardian.com/uk-news/2017/oct/17/uk-most-severe-terror-threat-ever-mi5-islamist> (Accessed 05 July 2021).

<sup>25</sup> “A Former MI5 Agent Tells us Why it’s so Easy for Terror Suspects like Khalid Masood to Move Around without Being Arrested”, *Business Insider*, available at <http://uk.businessinsider.com/mi5-agent-surveillance-of-islamic-terrorist-suspects-2017-3> (Accessed in 12 November 2020).

Due to the sudden nature of attacks they should be followed 24/7, and it is an impossible task.

Even if a signal is detected, it is not easy to convict a potential attacker. This situation poses a great problem for countries with democratic systems. Security agencies have difficulties in detecting the transition from the phase of speech, which is accepted as freedom of expression, to the phase of action. It is not possible to detect the exact time at which actors move from speech to action, to follow all radicals, and to protect all possible targets. Moreover, in the criminal justice system, a criminal organization must operate under a hierarchical structure and there must be continuity in its activity. Weapons and logistics are required to commit the crime. If these conditions are not met, the issue is legally seen as a preparatory action and cannot be punished.<sup>26</sup>

Moreover, in some occasions, a potential lone actor cannot take action due to insufficient capacity in terms of logistics. It is known that these actors are radicalized, but legal steps cannot be taken because an operational link cannot be proved. In such cases, security forces have three different options. In the first option, these radicals are generally put into technical and physical surveillance. However, this does not guarantee the prevention of an attack.<sup>27</sup> Another method is internment, but in democratic countries, it is not always legally possible to intern all of the potential attackers. Even if this is done, it may not be efficient. Taking advantage of the state of emergency, in France, a total of 3600 operations were carried out without a court decision between November 2015 and July 2016, but only one suspect was prosecuted.<sup>28</sup> The last option is the sting operation. In this

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<sup>26</sup> Zeki Hafizoğulları, Günel Kurşun, "Türk Ceza Hukukunda Örgütlü Suçluluk", *TBB Dergisi*, (71) (2007), pp.25-80, p.39. (in Turkish)

<sup>27</sup> For example, Khamzat Azimov, a radical who was under control of the French police forces, stabbed a person to death on 12 May 2018 in Paris. See "Paris Knife Attacker was Known to Counter-Terrorism Police", (13 May 2018), *The Guardian*, available at <https://www.theguardian.com/world/2018/may/13/paris-knife-attacker-khamzat-azimov-known-to-counter-terrorism-police> (Accessed 08 October 2020).

<sup>28</sup> Martin de Bourmont, M., "Rights Advocates Brace for Anti-Terrorism Bill", *Foreign Policy*. (03 October 2017); Authorities say that going to Afghanistan or praising al Qaeda and Daesh will put a person on the FBI's radar, but not enough to be charged and arrested. For example, Omar Mateen, who killed 49 people in an attack on a nightclub in Orlando on June 12, 2016, had been interrogated and placed under surveillance before the attack, because of making radical rhetoric at work. FBI Director of the time, Comey, stated that the FBI conducted a preliminary investigation against Mateen for 10 months, which is the legal limit, but no signs of a threat were found, and in hindsight, no action was incomplete or wrong in this case and that they should have done differently. Adam Goldman, "Why Didn't the F.B.I. Stop the New York Bombing?" (21 September 2016). Available at <https://www.nytimes.com/2016/09/22/us/fbi-terror-ahmad-khan-rahami.html> (Accessed 10 October 2020).

scenario, a potential attacker passes to the action phase and is removed from the system under the control of the intelligence agencies. In the USA, between 2001-2013, a total of 15 potential lone actors (25% of lone actor cases in the USA) were prosecuted in this way.<sup>29</sup> Although sting operations are very successful at the tactical level, it brings moral discussions with it. For this reason, it is not preferred in European Union countries.

As previously mentioned, lone actors have the ability to put intelligence and security agencies on the horns of a dilemma due to their unique character. For this reason, these kinds of attacks are also preferred by al Qaeda and Daesh. In the next part, the background of these organizations lone actor campaigns is examined.

### 3. The Lone Actors in the Strategy of al Qaeda and Daesh

Lone-actor attacks are not a new phenomenon. Although some researchers indicates that the concept of an actor acting alone has always been an important figure throughout the human history,<sup>30</sup> the modern era of lone actors is generally initiated by the assassination campaign of 19th century anarchists. In this era, anarchists carried out assassinations and attacks against institutions and individuals representing bourgeois values and monarchies, in the form of small cells or individuals. That is why the period of 1878–1934, when anarchists carried out serial assassinations, is seen as the classical age of lone actors.<sup>31</sup> The concept of “propaganda by the deed”, the famous slogan of the period, triggered such actions.<sup>32</sup>

The concept of lone actor became popular in the USA after being placed in a theoretical framework under the concept of “*leaderless resistance*” by right-wing domestic terrorist organizations in the U.S. The definition has its origins in an article of the same title, dated 17 April 1962 by Captain Ulius Louis Amoss.<sup>33</sup> It was formulated as an “*irregular warfare against invading communist troops*”.<sup>34</sup> Ironically, the model was applied by the US far right against the US federal government in the last quarter of the 20th century.<sup>35</sup> The concept’s popularity increased in

<sup>29</sup> Ramon Spaaij, Mark Hamm, “Key Issues and Research Agendas in Lone Wolf Terrorism”, *Studies in Conflict & Terrorism*, 38(3) (2015), pp.67-178, p.172.

<sup>30</sup> Bates, *Ibid*, p.2; Kaplan, et., *Ibid*, p.1.

<sup>31</sup> Richard Jensen, “The Pre-1914 Anarchist ‘Lone Wolf’ Terrorist and Governmental Responses”, *Terrorism and Political Violence*, 26(1) (2014), pp.86-94, p.87; Feldman, *Ibid*, p.272-273.

<sup>32</sup> Borum et. al., p.389.

<sup>33</sup> Louis Beam, “Leaderless Resistance”, *The Seditonist*, (12 February 1992), available at <http://www.louisbeam.com/leaderless.htm>. (Accessed 10 May 2020).

<sup>34</sup> Jeffrey Kaplan, “Leaderless Resistance”, *Terrorism and Political Violence*, 9(3) (1997), pp.80-95, p.80

<sup>35</sup> Kaplan, *Ibid*, pp.80-87.



1983, when Louis R. Beam, a former Ku Klux Klan and Arian Nations member, once again brought it into the agenda. Beam, due to being influenced by Amoss, used the definition of “*leaderless resistance*” and conceptualized it as “*lone wolf*” actions carried out individually or by a small group, independent of any network or movement. Beam stated that the pyramid-shaped, hierarchical structure has proven to be unsuccessful against the state apparatus. An alternative to pyramid structuring was a cell-type organization. Beam emphasizes that the cell structure, which he calls the “*communist model*”, has a centralized organization, direction, and financing, but “*American patriots*” do not have such opportunities. Beam states that the third option, other than the pyramid and cell structure, is what Amoss refers to as the “*phantom cell*”. Although this system is a cell structure, it is not connected to a center, and all individuals and groups connected to the movement act independently. Instructions are given over media without direct contact with cells.<sup>36</sup>

Lone-actor attacks also have an important place in al Qaeda narratives. Al Qaeda defines lone actors as individuals who act outside the chain of command; the origins of this methodology can be traced back to the book *The Call to Global Islamic Resistance*, written by Mustafa bin Abd al-Qadir Setmariam Nasar aka Abu Musab al-Suri in the 1990s.<sup>37</sup> This publication is considered to have been instrumental in al Qaeda’s turn to lone-actor attacks in 2004. In his book, al-Suri defined lone actors as individuals or small cells who keep their ties to the organization to a minimum. In this way, intelligence units will be confused and the discovery of a cell will not pose a threat to other cells.<sup>38</sup> Al Suri places lone-actor attacks at the center of his modus operandi. He emphasizes that, instead of a guerrilla type of warfare based on armed groups, small cells or “individual jihad” should be waged in regions where it is not possible to open a front.<sup>39</sup> This doctrine was expressed as “*nizam, la tanzim*” (system, not organization). Accordingly, there is no need for any operational link to take action, and guidance will be sufficient.<sup>40</sup>

<sup>36</sup> Beam, *Ibid.*

<sup>37</sup> Rachel Briggs, “The Changing Face of al Qaeda”, (Institute for Strategic Dialogue January 2012).

<sup>38</sup> Gabriel Weimann, “Lone Wolves in Cyberspace”, *The Centre for the Study of Terrorism and Political Violence*, 3(2) (2012), pp.75-90, p.82.

<sup>39</sup> (PET CTA, *Ibid.*, From Brynjar Lia, “Al-Suri’s Doctrines for Decentralized Jihadi Training – Part 1”, *Terrorism Monitor*, 5(1) (2007), available at <https://jamestown.org/analyst/brynjar-lia/> (Accessed 15 May 2020).

<sup>40</sup> Lia, 2007; Al Suri gave importance not only to the lone actor attacks but also to more sophisticated terrorist attacks that required detailed planning such as the 2004 Madrid and 2005 London bombings. See “Syria Releases the 7/7 Mastermind”, *The Telegraph* (04 February 2012), available at <https://www.telegraph.co.uk/news/uknews/terrorism-in-the-uk/9061400/Syria-releases-the-77-mastermind.html>, (Accessed 20 May 2020).

Lone-actor attacks have been promoted by al Qaeda leadership. In an article published on a website called Sada al Jihad by Osama bin Laden in 2003, he called for action without waiting for any instructions.<sup>41</sup> This concept was indoctrinated in a series of articles titled “How to Fight Alone”, published in 2006 by al Qaeda member Abu Jihad al-Masri.<sup>42</sup> Al Qaeda leader Ayman al-Zawahiri, in his message on September 11, 2013, the 12th anniversary of 9/11, praised the Boston Marathon attack and stated that similar attacks should be carried out by lone actors or small cells. Zawahiri also emphasizes that the most important effect of lone actor threat is in the economic dimension and that the threat of attack will lead the US to increase its security expenditures and to live under the constant fear of an attack. He states that these attacks do not have any cost for al Qaeda, but they bring a great burden to the US economy.<sup>43</sup>

Lone-actor attacks have also been embraced by al Qaeda affiliates like al Qaeda in the Arabian Peninsula (AQAP). In fact, in the first decade of the 21<sup>st</sup> century, the most active affiliate of al Qaeda was AQAP and Ibrahim al-Asiri, the group’s explosives expert, who was described by David Petraeus, the head of the CIA at the time, as “*the most dangerous man in the world*”.<sup>44</sup> It is believed that AQAP had an ideological or operational role in many actions carried out in Europe and the USA between 2009 and 2016.<sup>45</sup> The pivot in AQAP’s lone-actor attacks was al-Awlaki. As a US citizen, al-Awlaki has been a mentor and a role model for radicals in the US. Besides, in Inspire, the media branch of the organization, lone-actor style improvised attacks were encouraged with articles such as “Make a Bomb in the Kitchen of Your Mom”. These articles guided attackers like Tsarnaev brothers.<sup>46</sup>

Al Qaeda in Iraq (AQI - later Daesh) was another affiliate that prioritized lone actors in their strategy. Daesh’s turn to lone-actor attacks is the direct result of its failures in the conflict zones. In this context, there has been a great increase in calls for attacks against Western targets, especially after 2014. Hamming states that, while the leadership cadre of Daesh called for an attack against Western targets (far enemy) only once between 2010-2014, this number dramatically increased to

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<sup>41</sup> Borum, et. al., p.391.

<sup>42</sup> Borum, et. al., p.391.

<sup>43</sup> “Al-Qaeda Chief Zawahiri Urges ‘Lone-Wolf’ Attacks on U.S.”, *BBC*, (13 September 2013, <https://www.bbc.com/news/world-middle-east-24083314> (accessed 20 October 2021).

<sup>44</sup> Interview with Peter Bergen in “David Petraeus: ISIS is on its Way to Defeat but Terrorism Threat Persists”, *CNN*, available at <https://edition.cnn.com/2016/06/22/opinions/bergen-interview-with-petraeus/index.htm>, (Accessed 20 October 2021)

<sup>45</sup> Colin Clarke, “Predicting the Next ISIS”, (08 October (2018), available at <https://nationalinterest.org/feature/predicting-next-isis-32822> (accessed 24 May 2020)

<sup>46</sup> Jesse Morton, Mitchell Silber, “NYPD vs. Revolution Muslim: The Inside Story of the Defeat of a Local Radicalization Hub”, *CTC Sentinel*, 11(4) (2018), p.5.

11 between 2014-2018.<sup>47</sup> Daesh's first statement targeting Europe was given in September 2014 by the organization's spokesman and the leader of the foreign operations unit Emni<sup>48</sup>, Abu Muhammad al-Adnani. The statement came seven days after the announcement of the international coalition against Daesh.<sup>49</sup> In the statement Adnani called for retaliatory attacks against civilian and military targets in the West. In this call, Adnani encouraged potential lone actors to improvised attacks and said *"If you are not able to find... a bullet, then ... [s]mash his head with a rock, or slaughter him with a knife, or run him over with your car, or throw him down from a high place, or choke him, or poison him"*.<sup>50</sup> In another speech in May 2016 he said, *"the smallest action you do in their heartland is better and more enduring to us than what you would [do] if you were with us...we wish we were in your place to punish the Crusaders day and night"*.<sup>51</sup>

Accordingly, since 2014, the main body behind most of the terrorist attacks in Europe is the Emni organization, the foreign operations unit of Daesh. Emni both organized and inspired terrorist attacks and, like AQAP's terror campaign between 2009 and 2015, it carried out a brutal campaign in Europe between 2015 and 2016.<sup>52</sup> The organization was established in 2014 and initially operated from Al Bab in Syria until 2016. After Emni's removal from al Bab by the Turkish Armed Forces, its headquarters was moved to Libya. Since his ties with Libya date back to 2016, this departure was not a spontaneous move. It is known that the cadres of Katibat Al-Battar Al-Libi (KBL), a local Libyan group, served as autonomous cells within Daesh in Syria.<sup>53</sup> The cooperation between Emni and KBL has created a dangerous outcome for Europe; besides remotely inspired lone-actor attacks, more complicated and centrally planned attacks have also been initiated by this group. There were two main drives behind this outcome. First of all, KTB enabled

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<sup>47</sup> Tore Hamming, "Jihadi Competition and Political Preferences", *Perspectives on Terrorism*, 11(6) (2017), pp.63-88; In this context, the first Daesh inspired lone actor attack was carried out by Amedy Coulibaly in Paris in January 2015. Mona Alami, "Parsing the Islamic State's Nice Attack Claims" (19 July 2016) available at <http://www.atlanticcouncil.org/blogs/menasource/parsing-the-islamic-state-s-nice-attack-claims>, (accessed 11 May 2020)

<sup>48</sup> Can be translated as "security".

<sup>49</sup> Nesser et. Ibid, p.5.

<sup>50</sup> Abu Muhammad Al-Adnani, "Indeed Your Lord Is Ever Watchful", (9 September 2014) cited in Basra et. al., Ibid, p.35.

<sup>51</sup> Abu Muhammad Al-Adnani, (May 2016), cited in Maher Chmaytelli and Stephen Kalin and Ali Abdelaty "Islamic State Calls for Attacks on the West during Ramadan in Audio Message", *Reuters*, available at <https://www.reuters.com/article/us-mideast-crisis-islamicstate-idUSKCN0YC00G>, (accessed 15 June 2021).

<sup>52</sup> Clarke, Ibid.

<sup>53</sup> Jacqueline Sutherland, "How Is ISIS Able to Commit Acts of Terror as It Loses Territory?", (08 November 2017), *The National Interest*, available at <https://nationalinterest.org/feature/how-isis-able-commit-acts-terror-it-loses-territory-23111> (accessed 15 June 2021)

Emni to reach Western European radicals. These radicals were Francophone cadres from Belgium, France, and Tunisia that had previously operated within the KTB. It is considered that linguistic proximity may be effective in this. The second reason was about the tactics. It is argued that the *inghimasi* tactics, which combine armed assault and suicide bombing, were popularized by the KTB. In this context, it is said that the attacks carried out by French and Belgian cadres in Europe with *inghimasi* tactics possibly had been directed by the KTB.<sup>54</sup>

#### 4. The Lone Actor Conceptualizations and the Theoretical Framework

The conceptualizations in the literature can be divided into two groups, narrow and broad, within the framework of the organizational-link variable. The main points that separate these two groups are the ideological<sup>55</sup> and operational ties of the attackers. Researchers that use the narrow definition oppose all kinds of ideological and operational connection. Other studies using the broad definition agree that there may be an ideological relationship but they differ on the operational connection (Figure-1). Since fundamentalist organizations like al Qaeda started to exploit the lone actor attacks, there has been an inclination to use a broader definition.

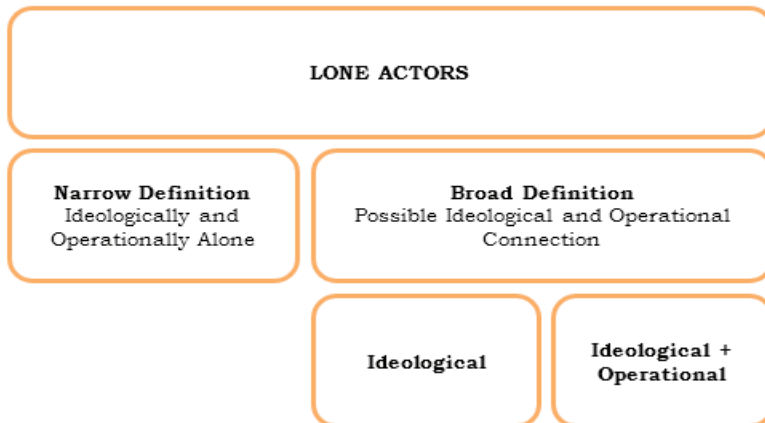


Figure 1: Narrow and Broad Definitions<sup>56</sup>

<sup>54</sup> Cameron Colquhoun, “Tip of the Spear? Meet ISIS’ Special Operations Unit, Katibat al-Battar”, (16 February 2016), *Bellingcat*, available at <https://www.bellingcat.com/news/mena/2016/02/16/tip-of-the-spear-meet-isis-special-operations-unit-katibat-al-battar>. (accessed 15 June 2021).

<sup>55</sup> Clearly all al Qaeda and Daesh inspired attackers are ideologically motivated. In this research, the ideological connection variable is used to describe whether the attackers have made any organizational connection in their radicalization process.

<sup>56</sup> The figure was prepared by the author.

#### 4.1. Narrow Conceptualization

The narrow conceptualization emphasizes that the aggressor must act completely alone during the radicalization process, operational preparation phase, and at the moment of action. Accordingly, if the attacker establishes an organizational connection at the operational level or a cell formation occurs, the lone-actor characteristics are lost. Any kind of an organizational connection is against the secrecy inherent to the definition of the lone actor.<sup>57</sup> Therefore, attackers that come into contact with radical circles in virtual or physical environments do not fall within the narrow definition of the lone actor.<sup>58</sup>

Since terrorism is generally accepted as an organized crime with political aims, it is difficult to come across an attacker who fits this narrow definition. Accordingly, the narrow conceptualization is largely inherent to office-campus attackers and serial killers who act for personal reasons. In this context, the narrow definition excludes many aggressors who are defined as lone actors in popular opinion. For example, Breivik is not considered a lone actor because he is ideologically linked to far-right groups.<sup>59</sup> A similar situation applies to McVeigh too.<sup>60</sup>

The most popular example (maybe the only according to narrow definition) that falls within the narrow conceptualization is Theodore Kaczynski, aka the UNABOMBER (University and Airline Bomber), who acted completely alone ideologically and operationally. Kaczynski, an American mathematician and anarchist, caused the death of 3 people and the injury of 23 people in 16 separate bomb attacks, which he carried out for 17 years. He claimed that technology was destroying the social structure and that is why he targeted scientists who were engaged in technological research. Kaczynski also unsuccessfully tried to shoot down a domestic flight in the USA in 1979. Due to his organizational isolation, he managed to hide from the radar of intelligence units for many years.

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<sup>57</sup> Bakker, Zuijdewijn, *Ibid*, p.6.

<sup>58</sup> J.M. Berger, "The Boy Who Cried Lone Wolf", (12 February 2012), *Foreign Policy*, available at <https://foreignpolicy.com/2012/02/21/the-boy-who-cried-lone-wolf/>. (accessed 10 June 2020); Fred Burton, Scott Stewart, "The 'Lone Wolf' Disconnect", (30 January 2008), *The Stratfor*, available at [www.stratfor.com/weekly/lone\\_wolf\\_disconnect](http://www.stratfor.com/weekly/lone_wolf_disconnect), (accessed 10 May 2020).

<sup>59</sup> Burke, *Ibid*; The attacks carried out by Anders Breivik on July 22, 2011, in Oslo and Utoya, in which 77 people lost their lives, were also an important breaking point

<sup>60</sup> Timothy McVeigh is responsible for the 1995 Oklahoma City Alfred P. Murrah Federal Building bombing that killed 168 people, 19 of whom were children playing in the kindergarten of the building. The bombing was the deadliest attack in the US soil prior to the 9/11.

On the other hand, it can be seen that there is an illusion regarding the UNABOMBER. Kaczynski had his unique ideology, but in reality, every actor is somehow influenced by the information warfare tactics of terrorist organizations, and gives various low-level signals at the ideological level, even if not at the operational level. Although, as stated before, these signals are not easy to detect; this situation leads to comments that there is no such an attacker as a lone actor and this definition should be completely eliminated.<sup>61</sup>

#### 4.2. Broad Conceptualization

Broad conceptualizations accept that none of the attackers is truly alone. Accordingly, the main question to be asked is not whether the lone actors are alone or not, but how alone he is.<sup>62</sup> Although broader definitions agree that it is very difficult for lone actors to be in an ideological vacuum, they differ on the operational linkage. While some studies reject the operational link and support,<sup>63</sup> others include it in the definition and argue that it is sufficient for the attacker to be alone at the time of action.<sup>64</sup> That is why this broadest definition encompasses all kinds of suicide attackers if they are alone at the moment of an attack. Broad conceptualization encompasses a large set of attacks and hybrid cases on a continuum.<sup>65</sup> According to Gill et. al. 20 of 119 (16.8%) lone-actor cases that they analyzed have a broader operational linkage.<sup>66</sup> In another work, 86% of lone actors give signals about their radicalization process and 58% of them give signals about their operational plans.<sup>67</sup>

<sup>61</sup> For example, Bart Schuurman, Lasse Lindekilde, Stefan Malthaner, Francis O'Connor, Paul Gill, Noemie Bouhana, "End of the Lone Wolf: The Typology that Should Not Have Been", *Studies in Conflict & Terrorism*, 42(8) (2017), 771-778.

<sup>62</sup> Feve, Bjornsgaard, Ibid, p.3

<sup>63</sup> Gruenewald, et. al., Ibid, p.75; Bakker and Zuijdewijn, Ibid.

<sup>64</sup> Feldman, Ibid, pp.281-282; Gill, et. al., Ibid, p.426; Barnea, Ibid, p.220; United Nations also use a broader definition and accepts that the individuals who go or attempt to go to conflict zones, develop radical discourse, and show interest in websites used by terrorist organizations are potential lone actor candidates. (United Nations, Ibid. (2015); This definition encompasses Foreign Terrorist Fighters (FTFs) that are defined as "individuals who travel to a State other than their State of residence or nationality for the purpose of the perpetration, planning or preparation of, or participation in, terrorist acts or the providing or receiving of terrorist training, including in connection with armed conflict" according to "United Nations Security Council Resolution 2178", (2014), available at <https://www.un.org/securitycouncil/s/res/2178-%282014%29> (accessed 03 October 2020);

<sup>65</sup> Borum, et. al., Ibid, p.393

<sup>66</sup> Gill, et. al., Ibid, p.430.

<sup>67</sup> Schuurman, Ibid, p.774. For detailed information about signals and leakage behaviour see "Federal Bureau of Investigation Homegrown Violent Extremist Mobilization Indicators Booklet", (2019), available at [https://www.dni.gov/files/NCTC/documents/news\\_documents/NCTC-FBI-DHS-HVE-Mobilization-Indicators-Booklet-2019.pdf](https://www.dni.gov/files/NCTC/documents/news_documents/NCTC-FBI-DHS-HVE-Mobilization-Indicators-Booklet-2019.pdf), (accessed 20 October 2021)

There is a similar argument about dyads too. Dyads are some forms of a small cell configuration and that is why it can be thought that they should be excluded from the definition. On the other hand, these cells are either composed of family members or formed by the lone actor before the attack.<sup>68</sup> Cells made up of family members are especially resistant to infiltration. For example, dyads composed of relatives, such as married couples like San Bernardino attackers Rizwan Farook and Tashfeen Malik, or the Tsarnaev brothers who committed the 2013 Boston Marathon attack, have succeeded in secrecy.<sup>69</sup>

Another important issue about the ideological and operational linkage is the medium. The medium can be either physical or virtual. In particular, social media, which is defined as the “virtual community”,<sup>70</sup> is a very important tool to disseminate discourse and give operational training. In this virtual community, potential attackers can access educational materials, meet other radicals and receive operational instructions. Some of them even establish a direct linkage with mentors like Anwar al-Awlaki and Rashid Rauf.

## 5. Analysis of the Attacks

In this part, the empirical findings of the al Qaeda- and Daesh-related attacks carried out in the European Union zone in 2009-2021 are analyzed. For this purpose, the attacks in the EUROPOL database have been examined under various subtitles.<sup>71</sup> There are a total of 89 al Qaeda- and Daesh-related attacks in the EUROPOL database. Out of a total of these 89 attacks, three of them were prevented while they were at the plotting stage<sup>72</sup> and there is no information found for one attack in open-source material.<sup>73</sup> These cases are excluded from the data set and 85 cases are examined.

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<sup>68</sup> Gill, et. al., *Ibid*, p.426.

<sup>69</sup> Moreover, cells with a sophisticated organizational linkage also uses family dyads in their operations. Daesh members Şeyh Abdurrahman Alagöz and Yunus Emre Alagöz, who carried out suicide attacks in Ankara and Suruç in 2015, and the AQAP affiliated 2015 Charlie Hebdo attackers Cherif Kouachi and Saïd Kouachi were family dyads.

<sup>70</sup> J. Reid Meloy, Jessica Yakeley, “The Violent True Believer as a ‘Lone Wolf’ Psychoanalytic Perspectives on Terrorism”, *Behavioral Sciences and the Law*, 32(3) (2014), pp.347–365, p.353.

<sup>71</sup> EUROPOL web site, *Ibid*.

<sup>72</sup> According to the authorities, many plots with different degrees of organizational contact are prevented every year. On the other hand, since only three unsuccessful plots are included in the EUROPOL data, they are excluded from the study in terms of the reliability of the data set.

<sup>73</sup> In Italy on 4 November 2019, a Liberian national launched a bottle rocket against a wall in Rome when he saw an army patrol. He was carrying in his backpack another bottle filled with petroleum. Although the action is reminiscent of other lone actor behavior, it was excluded from the research due to insufficient information in open sources.

In the literature, there are a few studies that used various subtitles for the analysis of the attacks carried out by these organizations. For example, in 2012, Borum et al. used this kind of classification under variables of *loneness*, *direction*, and *motivation*.<sup>74</sup> In 2019, Clemmow, et. al., used *propensity*, *situation*, and *network*.<sup>75</sup> In this study, classification is made by using ideological and operational connections. Attacks are codified in ideological linkage as: isolation, signaling-leakage behavior, on the radar, under surveillance, and physical connection. In operational linkage the codes are: isolation, online guidance, physical guidance, foreign terrorist fighter (FTF), and cell formation (Tables 1 and 2). EUROPOL dataset is classified under these dimensions (Table 3).

Table 1: Ideological Codificat

<b>IDEOLOGICAL CONNECTION</b>	
<b>Isolation</b>	0
<b>Signaling – Leakage Behavior</b>	1
<b>On the Radar</b>	2
<b>Under Surveillance</b>	3
<b>Physical Connection</b>	4

Table 2: Operational Codification

<b>OPERATIONAL CONNECTION</b>	
<b>Isolation</b>	0
<b>Online Guidance</b>	1
<b>Physical Guidance</b>	2
<b>Foreign Terrorist Fighter</b>	3
<b>Cell Formation</b>	4

<sup>74</sup> Borum et al. suggests that instead of debating definitions, it may be more useful to view each key feature along a continuum. See Borum, et. al., *Ibid*.

<sup>75</sup> Clemmow, et. al., *Ibid*.



	ATTACK	IDEOLOGICAL				OPERATIONAL				ORGANIZATIONAL				
		LEAKAGE	RADICAL	WATCH LIST	PHYSICAL	ONLINE	PHYSICAL	ETC	CELL	SCORE	CRIME	MENTAL	TACTIC	IMMIGRANT
1	2009 (12 October) 2009 Milano Santa Barbara Bombing - Mohammed Game	1						4	1-4			B	Y	M
2	2009 (25 December) 2009 Christmas Day Bombing Plot - Umar Farouk Abdulmutallab			3				3	3-3			B		C
3	2010 (1 January) 2010 Kurt Westergaard Attack - Mohamed Gelele								0-0			ST	Y	C
4	2010 (27 June) 2010 Bugojno Bombing - Harris Causevic		2					4	2-4	Y		B		P
5	2010 (10 September) 2010 Hotel Jørgensen explosion - Lørs Doukaiyev								0-0			B	Y	C
6	2010 (11 December) 2010 Stockholm Bombing - Taimour Abdulwahab al-Abdaly	1			2				1-2			B	Y	C
7	2011 (2 March) 2011 Frankfurt Airport Shooting - Arid Uka								0-0			SH	Y	M
8	2012 (11-19 March) 2012 Toulouse and Montauban Shootings - Mohammed Mierah		2		2				2-2	Y	Y	SH		MHC
9	2012 (October) 2012 Cannes-Torcy Cell Attacks							4	0-4			B		C
10	2013 (22 May) 2013 Woolwick Ramming - Michael Adebajo and Michael Adebowale			3				4	3-4	Y		R+ST		M
11	2013 (25 May) 2013 La Defence Stabbing - Alexandra Dhaussy		2						2-0	Y	Y	ST		M
12	2014 (24 May) 2014 Brussels Jewish Museum Shooting - Mehdi Nemmouche		2					3	2-3	Y		SH		C
13	2014 (20 December) 2014 Tours Police Station Stabbing - Bertrand Nzohabonyo								0-0	Y		ST	Y	P
14	2014 (21 December) 2014 Dijon Ramming - Nacer B.								0-0	Y	Y	R		C
15	2014 (22 December) 2014 Nantes Ramming - Sébastien Sarron								0-0		Y	R		C
16	2015 (7 January) 2015 Charlie Hebdo Shooting - Said Kouachi and Cherif Kouachi				4			4	4-4	Y		SH		C
17	2015 (9 January) 2015 Kosher Market Shooting - Amedy Coulibaly			3				4	3-4	Y		SH		C

18	2015 (3 February)	2015 Nice Stabbing - Moussa Coulibaly	3		3-0	Y	ST	P
19	2015 (14 February)	2015 Copenhagen Shootings - Omar Abdel Hamid El-Husein	3		3-0	Y	SH	C
20	2015 (26 June)	2015 Saint-Quentin Fallavier Attack - Yassin Salhi	2		2-0		ST	C
21	2015 (21 August)	2015 Thalys Train Attack - Ayoub El Khazzani	3	3	3-3		SH	Y C
22	2015 (17 September)	2015 Berlin Police Stabbing - Rafik Yousef	3		3-0	Y	ST	P
23	2015 (13 November)	2015 Bataclan Attack	4	4	4-4		SH	Y C
24	2015 (6 December)	2015 London Leytonstone Tube Station Stabbing - Muhayidin Mire			0-0		Y ST	Y C
25	2016 (7 January)	2016 Paris Police Station Attack Tarek Belgesem	1		1-0		ST	Y P
26	2016 (11 January)	2016 Marseille Jewish Teacher Attack - 15 years of Boy			0-0		ST	C
27	2016 (26 February)	2016 Hanover Stabbing - Safis S.	2	2	2-2		ST	P
28	2016 (22 March)	2016 Brussels Airport and Metro Bombings	4	4	4-4		B	C
29	2016 (13 June)	2016 Maignanville Stabbing - Larossi Abballa	2		2-0	Y	ST	P
30	2016 (14 July)	2016 Nice Truck Ramming - Mohamed Lahouaiej-Bouhlal			0-0	Y	R	C
31	2016 (18 July)	2016 Würzburg Train Stabbing - Riaz Khan Ahmatzai		1	0-1		ST	Y C
32	2016 (24 July)	2016 Ansbach Bombing - Mohammad Daleel		3	0-3		Y B	Y C
33	2016 (26 July)	2016 Saint-Étienne Church Stabbings - Adel Kermiche Abdel and Malik Petitjean	3		3-0		Y ST	C
34	2016 (6 August)	2016 Stabbing of Charleroi Police Officers - Khaled Babbouri			0-0	Y	ST	Y P
35	2016 (5 October)	2016 Stabbing of Brussels Police Officers - Hicham Diop	2		2-0		ST	C
36	2016 (19 December)	2016 Berlin Christmas Market Ramming - Anis Amri	3		3-0	Y	R	Y C

39	2017 (20 April)	2017 Champs-Élysées Attack - Karim Cheurfi	3		3-0	Y	Y	SH	P
40	2017 (22 May)	2017 Manchester Arena Attack - Salman Ramadan Alkadi	1	3	1-3	Y		B	C
41	2017 (3 June)	2017 London Bridge Attack - Khuram Shazad Butt Rachid Redouane Youssef Zaghiba	2	4	2-4			R+ST	C
42	2017 (6 June)	2017 Notre-Dame de Paris attack - Farid Ilikan			0-0			H	Y P
43	2017 (19 June)	2017 Champs-Élysées Ramming - Djaciri Adam Lotfi	3		3-0			R	M
44	2017 (20 June)	2017 Brussels Central Station Bombing - Oussama Zarfouh			0-0	Y		B	Y C
45	2017 (28 July)	2017 Hamburg Stabbing - Ahmad Alhaw	3		3-0			ST	Y C
46	2017 (9 August)	2017 Paris Levallois-Perret Ramming - Hamou Benatreche			0-0	Y		R	M
47	2017 (17 August)	2017 Barcelona and Cambriis Attacks		4	0-4			R+ST+B	C
48	2017 (18 August)	2017 Turku attack - Abderrahman Bouanane			0-0			ST	Y C
49	2017 (25 August)	2017 Buckingham Palace Sword Attack - Mohiussunnath Chowdhury			0-0			ST	P
50	2017 (25 August)	2017 Brussels Stabbing - Haazi Ayaanle			0-0	Y	Y	ST	Y M
51	2017 (15 September)	2017 Parsons Green Train Bombing - Ahmed Hassan	3	3	3-3			B	Y C
52	2017 (1 October)	2017 Marseille Stabbing - Ahmed Hanachi			0-0	Y		ST	Y C
53	2018 (5 May)	2018 The Hague Stabbing - Syrian National			0-0		Y	ST	Y C
54	2018 (12 May)	2018 Paris Knife Attack - Khamaat Azimov	3		3-0			ST	Y C
55	2018 (23 March)	2018 Carcassonne and Trèbes Attacks - Redouane Lakdim	3		3-0	Y		SH	Y C
56	2018 (29 May)	2018 Liège Attack - Benjamin Herman	2		2-0	Y		ST	P
57	2018 (31 August)	2018 Amsterdam Tourist Stabbing - Jawed Sultani			0-0			ST	Y C

58	2018 (11 December)	2018 Strasbourg Shooting - Chérif Cheikatt	3		3-0	Y	SH	C
59	2018 (31 December)	2018 Manchester Victoria Stabbing - Somali National			0-0	Y	ST	C
60	2019 (5 March)	2019 the Conde-sur-Sarthe Prison Stabbing - Michael Chiolò	3		3-0	Y	ST	P
61	2019 (18 March)	2019 Utrecht Tram Shooting - Gökmen Tanj			0-0	Y	SH	C
62	2019 (24 May)	2019 Lyon Parcel Bombing - Mohamed Hichem Medjoub			0-0	Y	B	C
63	2019 (17 September)	2019 Milano Stabbing - Mahamad Fathe			0-0	Y	ST	M
64	2019 (3 October)	2019 Paris Police Headquarters Stabbing - Mickaël Harpon	1		1-0	Y	ST	P
65	2019 (29 November)	2019 London Bridge Stabbing - Usman Khan	3		3-0		ST	C
66	2020 (3 January)	2020 Paris Villejuif Stabbing - Nathan C			0-0	Y	ST	C
67	2020 (9 January)	Whitemoor Prison Stabbing - Brusthom Zamani	3	4	3-4		ST	P
68	2020 (2 February)	Streatham Stabbing - Sudesh Amman	3	1	3-1		ST	C
69	2020 (4 April)	2020 Romans-sur-Isère Stabbing - Abdallah Ahmed-Osman			0-0		ST	C
70	2020 (27 April)	2020 Paris Colombes (Hauts-de-Seine) Ramming - Youssef T.			0-0		R	P
71	2020 (April - May)	2020 Walckraiburg Arson Attacks - Muharrem D.	1		1-0		A	C
72	2020 (20 June)	Reading Stabbing - Khairi Saadallah		3	4-3	Y	ST	C
73	2020 (18 August)	2020 Berlin Highway Ramming - Samraad A.			0-0		R	C
74	2020 (12 September)	2020 Morge Stabbing	3		3-0		ST	C
75	2020 (25 September)	2020 Paris (Charlie Hebdo) Stabbing			0-0		ST	C

76	2020 (16 October)	2020 Murder of Samuel Paty - Abdoullakh Abouyevdovich Anzorev	1	1	1-1	ST	Y	C
77	2020 (29 October)	2020 Nice Notre Dame Stabbing - Brahim Aouissouli			0-0	ST	Y	C
78	2020 (4 October)	2020 Dresden Stabbing - Abdoullakh al-H	3	1	3-1	ST	Y	C
79	2020 (2 November)	2020 Vienna Shooting - Kujtim Fejzullaj	3		3-0	SH		C
80	2020 (24 November)	2020 Lugano Stabbing	2		2-0	ST		C
81	2021 (23 April)	Rambouillet Stabbing - Jamel Gorchene			0-0	ST	Y	P
82	2021 (17 September)	Murcia Ramming - Abdellah Gmara			0-0	ST	Y	C
83	2021 (15 October)	Murder of David Ames - Ali Harbi Ali	2		2-0	ST		C
84	2021 (6 November)	Bavaria Train Stabbing - Syrian national			0-0	ST	Y	C
85	2021 (14 November)	Liverpool Hospital Bombing - Emsad al-Swealmeh			0-0	B	Y	C

Table 3: Classification of Attacks in European Union Zone Between 2009-2021<sup>76</sup><sup>76</sup> Table is prepared by the author.

- A: Arson
- B: Bombing
- C: Civilian<sup>77</sup>
- P: Police Officer
- M: Military Personnel
- R: Ramming
- SH: Shooting
- ST: Stabbing
- Y: Yes

According to the empirical results, 33 of the total 85 attacks (39%)<sup>78</sup> did not have an organizational link, either operationally and ideologically. These cases fit into the narrow definition of lone-actor attacks. These attackers either did not give any signals before the attack or low-intensity signals were not detected by the security forces. It is obvious that lone actors are radicalized ideologically, on the other hand, this process developed passively and very rapidly. As it will be stated later, the processes were developed in an unpredictable and fuzzy way and in some instances due to the effects of mental disease. Due to their unique characteristics, in this study these cases are accepted as lone-actor attacks.

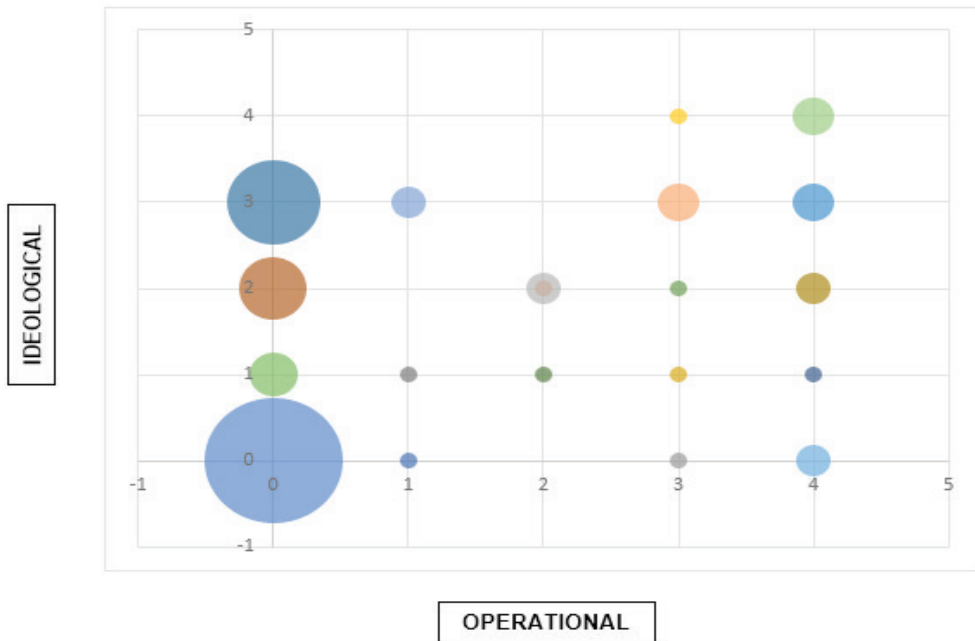
Table 4: Classification of al Qaeda and Daesh Affiliated Attacks

		OPERATIONAL				
		0	1	2	3	4
IDEOLOGICAL	0	33	1		1	2
	1	4	1	1	1	1
	2	8		2	1	2
	3	15	2		3	3
	4				1	3

<sup>77</sup> British MP Davis Amess is counted as a civilian

<sup>78</sup> Marked grey in the table

Graph 1: Classification of al Qaeda and Daesh Affiliated Attacks

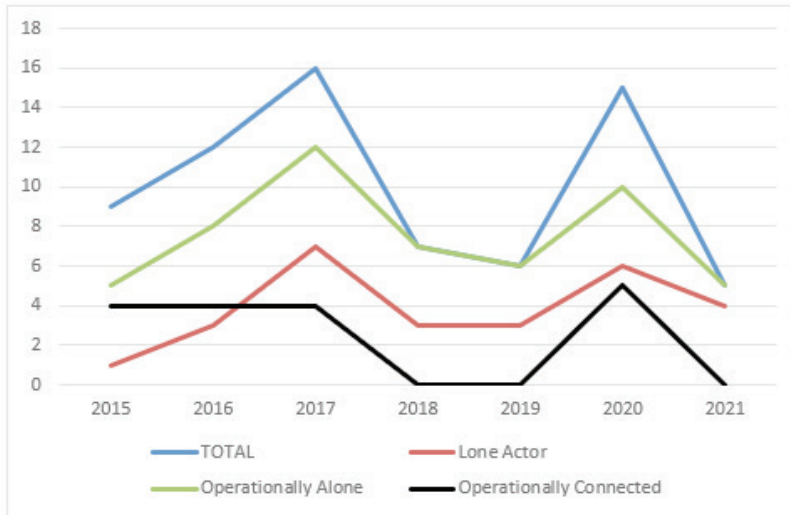


According to the empirical data, since 2015, the most intense threat has been coming from operationally isolated attackers (Graph-2). Of course, this does not mean that FTFs and cells are not a threat anymore. This result can be a survivor bias and can also be interpreted as the result of successful counter-terrorism efforts of security agencies in the prevention of operational cells.<sup>79</sup> It is known that many plots have been prevented, not only in the European Union zone, but also in countries like Türkiye and the USA. On the other hand, there is no accurate comprehensive database of plots stopped during the preparation phase. It can be interpreted that the reasons for the decrease in the number of attacks with operational connections after 2017<sup>80</sup> are decreased capacity of al Qaeda and Daesh, the slowdown of the migration wave, and the increase in the capacity and cooperation of counter-terrorism intelligence.

<sup>79</sup> Some of these cells are directly connected with combat zones like the Bataclan attackers. On the other hand, most of them are formed as radical milieus and not connected to the core structures. For description of radical milieu see Stefan Malthaner, Peter Waldmann, "The Radical Milieu\_ Conceptualizing the Supportive Social Environment of Terrorist Groups", *Studies in Conflict & Terrorism*, 37(12) (2014) pp.979-998

<sup>80</sup> As it can be seen there is a dramatic increase in operationally connected attacks in 2020. On the other hand, three out of five attackers are just operationally directed online (Operational Connection Scale - 1) and two of them were under surveillance.

Graph 2: Distribution of Attacks Between 2015-2021



Lone actors in Europe have diverse backgrounds. For example, Farid Ikken, who carried out a knife attack against police officers on duty in Notre-Dame de Paris in 2017, was a journalist who came to France for doctoral education; in 2009 he was awarded the National Journalist Prize from the European Commission for his reports on human rights. He grew up in a secular environment and did not show any signs of radicalization before the attack. On the other hand, a video of Ikken was found during a search of his house, swearing allegiance to Daesh.<sup>81</sup>

Another attacker who was classified as a lone actor is Moroccan national Hamou Benlatrèche. He rammed his car into a group of soldiers near Paris on August 9 of 2017. According to the statement of the prosecutor's office, no connection of the attacker with Daesh was detected. On the other hand, it was also stated that after the technical analysis of Benlatrèche's cellphone and computer, it was found that he followed Daesh-related forums and conducted research on crossing into Syria.<sup>82</sup>

<sup>81</sup> "Notre Dame Attacker 'Pledged Allegiance to IS in Video'", (07 June 2017), *France24*, available at <https://web.archive.org/web/20170719031955/http://www.france24.com/en/20170607-notre-dame-attacker-pledged-allegiance-video>, (accessed 20 March 2021).

<sup>82</sup> "Man Arrested in French Car Attack had Radical Beliefs", *The Washington Times*, (23 August 2017), available at <https://www.washingtontimes.com/news/2017/aug/23/man-arrested-in-french-car-attack-had-radical-beli/> (accessed 20 March 2021).



Similarly, 2011 Frankfurt Airport shooter Arid Uka never had physical contact with an extremist network. His sole organizational contact was online and he radicalized himself by watching propaganda videos.<sup>83</sup> This is the common story of many lone actors. They were radicalized ideologically, but unlike attackers like Nidal Hassan,<sup>84</sup> they did not engage in any kind of an organizational connection, except for passive research.

If we use a broader conceptualization of the lone-actor definition and include those who gave strong signals of ideological radicalization, this number rises to 60 (70.5%). This rate rises to 76% between 2015 and 2021, when the frequency of attacks dramatically increased in the European Union zone. On the other hand, it is impossible to pinpoint the attacker because there are thousands of individuals showing similar signals. As in the French case, mass internment does not yield any results either. This is the most important dilemma created by lone actors.

The degree of ideological linkage involved in broad conceptualization varies case by case. Mickaël Harpon is an example of signaling (Rate 1-0). Harpon was an IT specialist in the intelligence unit of the Paris police headquarters when he stabbed four of his colleagues to death on 3 October 2019. There were signals of his radicalization, but these signals were not taken seriously. He had changed his life style dramatically; in 2015, some of Harpon's colleagues reported his praise for the Charlie Hebdo attack.<sup>85</sup>

In some cases, radicals enter the radar of the police forces but engage in an attack anyway (Rate 2-0). For example, Hicham Diop, who attacked the police officers on duty in Brussels Schaerbeek on 5 October 2016 with a machete, can be included in this classification. Diop, who was an army veteran and a candidate for a chair in the local parliament, was known to Belgian authorities due to his links with radicals who traveled to Syria.<sup>86</sup>

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<sup>83</sup> "Frankfurt Airport Shooting may have Islamist Link, Say Police", *The Guardian*, (03 March 2011), available at <https://www.theguardian.com/world/2011/mar/03/frankfurt-airport-shooting-islamist-link?> (accessed 25 March 2021)

<sup>84</sup> Major Nidal Hassan who was a psychiatrist in the US Army, killed 12 people at the Fort Hood military base on October 5, 2009. Although Hassan has not physically connected to the conflict zones, he has received online ideological and operational mentorship from the AQAP cleric al Awlaki. As it was committed in USA, this case was not included in this research.

<sup>85</sup> "Paris Police Killings: Minister Calls for 'Automatic Alerts'", *BBC*, (07 October 2019), available at <https://www.bbc.com/news/world-europe-49959827> (accessed 25 March 2021).

<sup>86</sup> "Brussels Police Stabbed in 'Terror Attack'", *BBC*, (5 October 2016), available at <https://www.bbc.com/news/world-europe-37563836> (accessed 25 March 2021).

The next level of ideological connection for broad definition is attacks committed by actors who are under surveillance (Rate 3-0). These attackers were known to security forces; they were under physical or technical surveillance. Anis Amri, who killed 13 people and injured 55 people in the Christmas market truck attack in Berlin on 19 December 2016, is an example of lone actors who were on the watch list of the security agencies. Three weeks before the attack, a note from Moroccan intelligence stated that Amri was in search of a terrorist attack, but he could not be deported because the legal process had not been finalized and he had not made an operational contact.<sup>87</sup>

There is no attacker that fits into the highest level of ideological connection (Rate 4 – 0). It seems coherent because radicals that had established physical connection with overseas prior to the attack were generally FTFs. In our dataset they are FTFs like Bataclan and Charlie Hebdo attackers.

After this initial analysis, the common attributes of lone actors are examined. According to the empirical data, actors without organizational linkage still pose a real threat to the European Union. These actors differ from other attackers not only in organizational connection but also in other variables like mental health, lone actor-crime nexus, legal status, target selection, and tactics (Table-5).

Table 5: Comparison of Different Type of Attacks (Numbers are percentage)<sup>88</sup>

	Overall Ratio	Crime	Mental	Immigrant	Target (Civilian)	Tactics (Stab+Ram)
<b>Lone Actor</b>	39	30	<b>27,5</b>	<b>73</b>	69,5	<b>81,5</b>
<b>Operationally Alone</b>	<b>70,5</b>	36,5	21,5	50	66,5	<b>80</b>
<b>Operationally Connected</b>	29,5	32	<b>8</b>	44	<b>76</b>	36
<b>Total</b>	100	35	17,5	48	69,5	60

<sup>87</sup> "Berlin Islamist Terror Attack: A Deadly Story of Failure", *Deutsche Welle*, (18 December 2020), available at <https://www.dw.com/en/berlin-islamist-terror-attack-a-deadly-story-of-failure/a-55990942> (accessed 25 March 2021).

<sup>88</sup> Table is prepared by the author according to the empirical findings.

## 5.1. Mental Health

As lone actors do not have strong organizational or social linkage, psychological factors are at the center of this radicalization process. In this sense, there is a meaningful relationship between lone actor attacks and mental illness. 9 out of 33 (27.5%) of the actors have mental issues. The ratio for attackers with operational linkage is only 8%. Although these ratios are based on open-source analysis and are thus disputable, the margin is dramatic.

It can be seen that the ratio of mental illness is slightly higher than the population average.<sup>89</sup> On the other hand, this does not weaken the ideological dimension of the attack. It is accepted that the paranoid fantasies of violent individuals with mental illness are manipulated by al Qaeda and Daesh. Actors with mental issues are manipulated by online propaganda; as the visibility of these organizations in the media increases, it becomes easier to manipulate people with mental illnesses.<sup>90</sup> At this point, the pull effect of information warfare becomes visible. These actors may have biological, psychological, or sociological motives, but they reflect their reactions through terrorist organizations.

This result inevitably causes contradictory arguments about attacker motivation. For example, one of these attackers, Sébastien Sarron, who had mental problems and committed suicide in prison in 2016, confused the minds of the French politicians. French Interior Ministry spokesman Pierre-Henry Brandet officially declared in the immediate wake of the attack that “*I wouldn’t say it was a terrorist attack. I would call it a deliberate act*”.<sup>91</sup> On the other hand, according to the EUROPOL, this attack had been motivated by Daesh’s online propaganda and was thus classified as a terrorist attack.<sup>92</sup>

## 5.2. Lone Actor-Crime Nexus

The pull factor of information warfare is also effective on lone actor-crime nexus. A significant number of lone actors are converts, drug addicts, and petty criminals who have a record of violent behavior. Just as with mental illness, 10 out of 33 (30%) lone actors have a criminal background. For example, the Nice

<sup>89</sup> According to a study this rate is around 25% in the general population. Jordi Alonso et al., “Prevalence of Mental Disorders in Europe: Results from the European Study of the Epidemiology of Mental Disorders (ESEMED) Project,” *Acta Psychiatrica Scandinavica*, (109) (2004), pp.21–27, p.24

<sup>90</sup> “Global Terrorist Groups Exploit Mentally ill People to Carry Out Attacks: Experts”, *The Straits Times*, (12 May 2016), available at <https://www.straitstimes.com/world/global-terrorist-groups-exploit-mentally-ill-people-to-carry-out-attacks-experts> (accessed 25 March 2021).

<sup>91</sup> “France to Deploy Soldiers after Spate of Attacks”, *BBC*, (23 December 2014), available at <https://www.bbc.com/news/world-europe-30586798> (accessed 25 March 2021).

<sup>92</sup> “European Union Terrorism Situation and Trend report 2015”, (European Police Office 2015), p.19.

attacker Mohamed Lahouaiej-Bouhlel, who came to France from Tunisia in 2005, had a record of drug addiction and crimes such as domestic violence and sexual assault during his years in France. He did not show signs of radicalization in the organizational sense until a short time before his attack.

Criminality is also relevant for FTFs and other cell formations. That is why Alain Grignard, the head of Brussels Federal Police describes Daesh as a “*sort of a super-gang*”.<sup>93</sup> In this manner, redemption and life embeddedness<sup>94</sup> are important motives of action. Radical ideology seems to be an important means of salvation for those who want to be purified from their criminal past. In particular, organizations such as Daesh that do not demand religious knowledge and background for membership are seen as an important pull factor in this process.<sup>95</sup> Individuals are pushed to radicalism by criminal background and pulled by radical narratives of Daesh. In Daesh’s narrative, this is formulated as “*sometimes people with the worst pasts create the best futures*”.<sup>96</sup>

### 5.3. Legal Status

One of the important attributes of lone actors is that they are homegrown or immigrants rather than homecomings or FTFs. In general, 48% of the attackers are immigrants. This number increases to 73% (24 out of 33) in lone-actor cases. Some people argue that these immigrants are FTFs and they are intentionally sent to Europe with a cover story to commit an attack. For example, some members of the terrorist cell that carried out the 2015 Bataclan attack were foreign nationals who came to France with an asylum-seeker cover.<sup>97</sup> In these kinds of scenarios, attackers quickly turn to their task and act as cells. On the other hand, in lone-actor cases, the attackers do not directly engage in an attack immediately. Most of them try to assimilate into their new country. For example, the 2020 Romans-sur-

<sup>93</sup> Paul Cruickshank, “A View from the CT Foxhole: An Interview with Alain Grignard, Brussels Federal Police”, *CTC Sentinel*, 8(8) (2015), pp.7-10, p.8.

<sup>94</sup> “*All people aspire to create a solidly embedded life and that perceived life embeddedness...good life embeddedness can be defined as a good match between life tasks and life competencies. Threatened life embeddedness can thus be defined as a mismatch...people who experience threats to their life embeddedness will strive to (re)establish embeddedness...in rare cases, the search to (re) establish life embeddedness and reduce uncertainty can lead to political or religious radicalization.*” Lasse Lindeskilde, Preben Bertelsen and Michael Stohl. “Who Goes, Why, and With What Effects: The Problem of Foreign Fighters from Europe”, *Small Wars and Insurgencies*, 27(5) (2016), pp.858-877.

<sup>95</sup> Basra, et. al., *Ibid*, p.24.

<sup>96</sup> A propaganda poster of British radical group Rayat al-Tawheed cited in Basra, et. al., *Ibid*, p.7.

<sup>97</sup> “Paris attacks: Who were the attackers?”, *BBC*, (27 April 2016), available at <https://www.bbc.com/news/world-europe-34832512> (accessed 16 October 2021); In the literature these kinds of attackers are called the “sixth column”.

Isère attacker, Abdallah Ahmed-Osman, was a Sudanese immigrant who received asylum status in 2017. During the search of his home, handwritten documents were found in which the author of the lines complained, in particular, of living in a land of disbelievers.<sup>98</sup> Another example is the 2015 London Leytonstone Tube Station attacker Muhaydin Mire, who came to the UK as a child. That is why the lone actor-immigration nexus seems like a psychological and sociological issue rather than a tactical cover.<sup>99</sup>

As we move towards the right side of the graph, the profile of the attacks dramatically changes. These attacks are usually carried out by the homecomings or cell structures that used more sophisticated techniques and tactics. Emni had a vital role in these attacks. It is considered that the 2015 Paris/Brussels, May 2014 Jewish Museum Brussels and August 2015 Thalys train shooting, the 2016 Berlin Christmas Market attack, and the 2017 Manchester concert attack were organized and executed by Emni elements in Libya.<sup>100</sup> Al Qaeda also executed terror attacks in this era. Saïd Kouachi, who was one of the Charlie Hebdo attackers, had been to Yemen in 2011, met al Awlaki, and trained in AQAP camps.<sup>101</sup>

#### 5.4. Targets

Although lone actors prefer civilians as targets, the ratio is significantly lower than the operationally connected attackers. 69.5% (23 out of 33) of the victims are random civilians, others are hard targets like police officers and soldiers. They generally target symbolical places like museums and dates like Bastille Day. On the other hand, as they don't make organizational contact, it is hard to detect them in a target-centric approach. Even the terrorist organization will not know the timing of an attack. One of the challenges for authorities is the difficulty of tracking every person with bad intentions before they get out of control. That is why maybe the best way of deterring lone actors and protecting critical assets is denying the area by a preponderance of effort. In this effort, military personnel also have an important role. During Operation Sentinelle about 10000 soldiers and 4,700 police and gendarmes

<sup>98</sup> "Attaque de Romans-sur-Isère : Les Premiers Éléments de l'enquête", *L'Obs*, (04 April 2020), available at <https://www.nouvelobs.com/terrorisme/20200404.OBS27072/romans-sur-isere-les-premiers-elements-de-l-enquete.html> (In French) (accessed 08 October 2021)

<sup>99</sup> "Leytonstone knife attack: man convicted of attempted murder", *The Guardian*, (08 June 2016), available at <https://www.theguardian.com/uk-news/2016/jun/08/leytonstone-knife-attack-man-convicted-of-attempted> (accessed 16 October 2021).

<sup>100</sup> Sutherland, *ibid*; Clarke, *ibid*.

<sup>101</sup> "Both brothers behind Paris attack had weapons training in Yemen: sources", *Reuters*, (11 January 2015), available at <https://www.reuters.com/article/us-france-shooting-yemen-idUSKBN0K-K0F620150111> (accessed 08 October 2020)

were deployed in critical places of France.<sup>102</sup> Similarly, in Belgium, Italy, and the United Kingdom, thousands of military personnel deployed in the cities to deter and deny the area for terrorist attacks. On the other hand, even if the military is used to reach a preponderance, it is impossible to control all areas. As Bavarian Interior Minister Joachim Herrman declared after the Würzburg Train stabbing, *“Police needed to be strengthened but it was clear that authorities could never guarantee 100 percent safety for citizens. There cannot be a police officer in every train. A lone attacker with a knife or axe could theoretically strike anywhere in Germany.”*<sup>103</sup>

An important result of this deployment is the increase in counterforce attacks. Especially in France, police officers and military personnel serving within the framework of Operation Sentinelle were frequently targeted. Between 12 January 2015, the date that Operation Sentinelle began, and 23 April 2021, 11 out of 27 attacks (40.5%) carried out in France targeted police and soldiers. It is not known whether the increase in the visibility of the soldiers acts as a catalyst for the radicals. On the other hand, obviously, uniformed personnel attract attackers like a magnet. Maybe, just as in sting operations, uniformed personnel facilitate and accelerate the transition process of a radical and save civilian lives. In this respect Colonel Pierre-Olivier Marchand states, *“Our soldiers do not see themselves as targets but as shields...it is better that (the actors) attack soldiers who are able to react in the appropriate manner...it is difficult to say if and how many attacks have been avoided thanks to this operation, but I am convinced it has an effect against the ‘opportunity terrorists’.”*<sup>104</sup>

## 5.5. Tactics

Lone actors are single attackers with simple weapons. This is a direct result of the absence of operational contact. The signature tactics of lone actors are stabbing and ramming. 21 (63.5%) of lone actor attacks were stabbing<sup>105</sup> and 6 (18%) of them were ramming. This means that 81.5% of the attacks are improvised. This is also valid for the broad conceptualization. 48 out of 60 (80%) of the operationally isolated actors used stabbing or ramming as a tactic.

<sup>102</sup> “French police search home of man suspected of driving into soldiers”, *The Guardian*, (09 August 2017), available at <https://www.theguardian.com/world/2017/aug/09/paris-police-hunt-driver-hit-soldiers-on-patrol-levallois-perret> (accessed 08 October 2020)

<sup>103</sup> “Several injured in attack on train near Würzburg, southern Germany”, *Deutsche Welle*, (18 July 2016), <https://www.dw.com/en/several-injured-in-attack-on-train-near-w%C3%BCrzburg-southern-germany/a-19408848> (accessed 08 October 2021)

<sup>104</sup> Interview with Commander of Task Force East Colonel Pierre-Olivier Marchand in Phillip Andrews, “News from The Front Operation Sentinelle French Homeland Security Operation: Insights from Colonel Pierre-Olivier Marchand”, (Center for Army Lessons Learned (CALL) 2018)

<sup>105</sup> One attack is conducted by a hammer.

There are three important points about these improvised attacks. Firstly, although these attacks are simple, they can have serious consequences. The most striking of these attacks was the 2016 Nice truck ramming. Lahouaiej-Bouhlel, who did not show notable ideological or operational signals, killed 86 people as a result of the attack he carried out in July 2016. Secondly, these attacks resemble suicide attacks. Although they do not directly kill themselves like suicide bombers, their attacks are some kind of a high-risk suicide mission. At the end of the attack, they are either killed or fatally wounded by police forces or military personnel. That is why in the literature, these kinds of attacks are called “*suicide by cop*”.<sup>106</sup> Another point related to the tactics has to do with the financing of attacks. Since the actions are carried out with very low budgets, there is no money traffic to be followed. It is enough to go to a shopping mall and buy a knife or rent a car just before the attack. Executing attacks with simple weapons reduces the signals before the attack. These attackers, who do not download explosive formulas from the internet or try to obtain flammable materials or firearms, do not leave traces to be followed.

On the other hand, the characteristics of attacks dramatically change as the operational linkage emerges. Only 36% (9 out of the 25) of operationally connected attacks are committed by simple tactics. If we exclude online recruited attackers, this ratio drops to 20%. The other 80% of attacks are mass shootings or bombings like the 2015 Bataclan and 2015 Thalys train attacks.

## **6. Conclusion**

In this article, the concept of lone actor, which has gained popularity again recently, was discussed within the framework of organizational connection. For this purpose, first of all, the definition of lone actor is conceptualized. The definition of lone actor used in the study is attackers who do not establish an organizational contact at the ideological and operational level. As the organizational connection increases, the lone-actor characteristics decrease.

It is argued that al Qaeda- and Daesh-inspired lone actors are real and they constitute a significant threat to global security. Lone-actor attacks are executed in isolation and that is why they can be classified separately from other attackers like FTFs and cell formations. To operationalize this hypothesis, the data of EUROPOL’s Annual European Union Terrorism Situation and Trend Reports are used. According to the empirical research, only 29.5% of the attacks in the European Union zone

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<sup>106</sup> For detailed information see Christina Patton, William Fremouw. “Examining ‘Suicide by Cop’: A Critical Review of the Literature, *Aggression and Violent Behavior* (27) (2016) pp.107–120.

between 2009 and 2021 were operationally connected with al Qaeda or Daesh. 70.5% of the perpetrators were operationally isolated and 39% of them were both operationally and ideologically isolated.

Lone actors have signature attributes. First of all, their attacks are improvised and simple. 81.5% of lone-actor attacks are stabbing and ramming, while FTFs and cells use sophisticated tactics like mass shootings and bombings. Only 20% of operationally connected attacks are stabbing and ramming. Secondly, mental illness is significant in lone-actor behavior. 27.5% of them have mental issues which are significantly higher than the operationally connected attackers. Thirdly, although their main targets are civilians, lone actors also frequently select hard targets. 30.5% of their targets are soldiers and police officers. This ratio is 24% in operationally connected attackers. On the other hand, it is not known whether the uniform pulls attackers and triggers lone-actor behavior or not. Lastly, immigrants are an important pool for lone-actor attacks. According to statistical results, 73% of lone actors are immigrants.

In 2022, the center of gravity of Daesh attacks shifted to Afghanistan and Africa. Especially after the Taliban seized power in Afghanistan, several bombings were carried out in Kabul due to the power struggle between the new government and Daesh. There has also been a large increase in lone-actor attacks in Israel. From 22 March to 5 May, five terrorist attacks were committed in Israel. On the other hand, there has been a dramatic decrease in attacks in Europe. It can be considered that this is a capacity problem for the organizations rather than a conscious choice. It is known that after the killing of Daesh leader Abu Ibrahim al-Qurayshi, the organization called for stabbing and ramming attacks against Europe and the USA. In addition, it can be evaluated that al Qaeda will seek attacks in retaliation for the killing of its leader Ayman al-Zawahiri. EUROPOL's report for 2022 will give a clearer view of the security status of the European Union.

After conceptualizing the threat, in this part, the author would also like to quickly emphasize some tactical dimensions of countering these attackers. Since these types of attackers are not a part of a cell or do not have a physical or cyber connection with a larger network, it is very hard to detect them by intelligence means. Maybe the only way of preventing them is to deny both the physical and cyber terrain.

Firstly, physical area denial is the best option when security forces cannot simply rely on intelligence due to the severity and characteristics of a specific terrorist threat. But physical area denial needs preponderance and it is out of the limits



of the law enforcement agencies. That is why it is a collective effort of all security community. When necessary, military units should also be used for covering an area, protecting the potential targets, and deterring potential attackers. Accordingly, military units located in the urban landscape should be trained for counter-terrorism missions and their code of conduct should be clearly defined. It can be said that the military area-denial task is a new normal for countering terrorism.

Secondly, just like denying a physical terrain, security agencies should deny the cyber terrain. Although Foreign Terrorist Fighters like Reina attacker Masharipov or Paris attacker Abdelhamid Abaaoud were not active on the cyber terrain, most of the radicals and lone attackers are traceable on the web. Radical websites and social media platforms offer not only ideological indoctrination but also practical online training courses that urge visitors to take action on their own. Accordingly, outreach by security agencies into these online radical communities is key to providing early threat warnings. After filtering potential attackers, intelligence agencies can take other preventive measures. These measures are generally enhanced by clandestine physical and technical surveillance. In this context, sting operations can also be utilized. Cyber denial should also involve a close relationship between security agencies and commercial companies. Security agencies cannot cope with that huge amount of unstructured global data. Internet companies can assist security forces in identifying red flags and signals. In this manner, internet companies such as Google and Meta are on the front line of combatting radicalization and terrorism.

In conclusion, although some researchers argue that the definition of lone actor should be removed from the literature, the empirical results show that lone actors are a real threat to the European Union. In particular, attackers who do not connect operationally (those concentrated on the left vertical axis of the Graph-1) differ dramatically from those who have connections at the operational level (those on the right side of the Graph-1). Lone actors radicalize from a distance and do not physically connect with the organization. Rather than operate as part of a sleeper cell, they are normal people who go about their normal lives up to a point despite intense psychological pressure. Their actions are unsophisticated, and even after the action is taken, it cannot be understood for a long time whether it is a terrorist act. This organizational isolation is the main driving factor of a lone actor-based strategy for terrorist organizations. Since the late 19<sup>th</sup> century, it has been used by terrorist organizations with different ideologies. As a proven unconventional method, in the future, lone-actor attacks will most likely continue to be an important choice for terrorist organizations.

## Bibliography

- “A Former MI5 Agent Tells us Why it’s so Easy for Terror Suspects like Khalid Masood to Move Around without Being Arrested”, *Business Insider*, available at <http://uk.businessinsider.com/mi5-agent-surveillance-of-islamic-terrorist-suspects-2017-3> (Accessed in 12 November 2020).
- Al-Adnani Abu Muhammad, “Indeed Your Lord Is Ever Watchful”, (9 September 2014)
- Alami Mona, “Parsing the Islamic State’s Nice Attack Claims” (19 July 2016) available at <http://www.atlanticcouncil.org/blogs/menasource/parsing-the-islamic-state-s-nice-attack-claims>, (accessed 11 May 2020)
- Alonso, Jordi et al., “Prevalence of Mental Disorders in Europe: Results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) Project,” *Acta Psychiatrica Scandinavica*, (109) (2004), pp.21–27
- “Al-Qaeda Chief Zawahiri Urges ‘Lone-Wolf’ Attacks on U.S.”, *BBC*, (13 September 2013, <https://www.bbc.com/news/world-middle-east-24083314> (accessed 20 October 2021)
- Andrews Phillip, “News from The Front Operation Sentinel French Homeland Security Operation: Insights from Colonel Pierre-Olivier Marchand”, (Center for Army Lessons Learned (CALL) 2018)
- “Attaque de Romans-sur-Isère: Les Premiers Éléments de l’enquête”, *L’Obs*, (04 April 2020), available at <https://www.nouvelobs.com/terrorisme/20200404.OBS27072/romans-sur-isere-les-premiers-elements-de-l-enquete.html> (In French) (accessed 08 October 2021)
- Bakker Edwin, de Graaf Beatrice, “Preventing Lone Wolf Terrorism: Some CT Approaches Addressed”, *Perspectives on Terrorism*, 5(5-6) (2011), pp.43-50.
- Bakker Edwin, Zuijdewijn Jeanine de Roy van, “Countering Lone-Actor Terrorism Series No. 2”, (Royal United Services Institute for Defence and Security Studies Lone-Actor Terrorism Definitional Workshop 2015)
- Barnea Avner, “Challenging the ‘Lone Wolf’ Phenomenon in an Era of Information Overload”, *International Journal of Intelligence and Counterintelligence*, 31(2) (2018), pp.217-234.
- Barnes Beau, “Confronting the one-man Wolf Pack: Adapting Law Enforcement and Prosecution Responses to the Threat of Lone Wolf Terrorism”, *Boston University Law Review*, (92) (2012), pp.1613-1662.
- Basra Rajan, Neumann Peter and Brunner Claudia, “Criminal Pasts, Terrorist Futures: European Jihadists and the New Crime-Terror Nexus, The International Centre for the Study of Radicalisation and Political Violence (ICSR) 2016)
- Bates Rodger, “Dancing with Wolves: Today’s Lone Wolf Terrorists”, *The Journal of Public and Professional Sociology*, 4(1) (2012), pp.1-14.
- Beam Louis, “Leaderless Resistance”, *The Seditonist*, (12 February 1992), available at <http://www.louisbeam.com/leaderless.htm>. (Accessed 10 May 2020).

- Bergen Peter “David Petraeus: ISIS is on its Way to Defeat but Terrorism Threat Persists”, CNN, available at <https://edition.cnn.com/2016/06/22/opinions/bergen-interview-with-petraeus/index.htm>, (Accessed 20 October 2021)
- Berger J.M., “The Boy Who Cried Lone Wolf”, (12 February 2012), Foreign Policy, available at <https://foreignpolicy.com/2012/02/21/the-boy-who-cried-lone-wolf/>. (accessed 10 June 2020)
- “Berlin Islamist Terror Attack: A Deadly Story of Failure”, *Deutsche Welle*, (18 December 2020), available at <https://www.dw.com/en/berlin-islamist-terror-attack-a-deadly-story-of-failure/a-55990942> (accessed 25 March 2021)
- Borum Randy, “Loner Attacks and Domestic Extremism Informing Lone-Offender Investigations”, *Criminology & Public Policy*, 12(1) (2013), pp.103-112.
- Borum Randy, Fein Robert and Vossekuil Bryan, “A Dimensional Approach to Analyzing Lone Offender Terrorism”, *Aggression and Violent Behavior*, 17(5) (2012), pp.389–396.
- “Both brothers behind Paris attack had weapons training in Yemen: sources”, *Reuters*, (11 January 2015), available at <https://www.reuters.com/article/us-france-shooting-yemen-idUSKBN0KK0F620150111> (accessed 08 October 2020)
- Briggs Rachel, “The Changing Face of al Qaeda”, (Institute for Strategic Dialogue January 2012)
- “Bringing Terrorists to Justice: Challenges in the Prosecution of Terrorists Acting Alone or in Small Cells”, (United Nations 2015). [https://www.un.org/sc/ctc/wp-content/uploads/2015/09/S\\_2015\\_123\\_EN.pdf.%](https://www.un.org/sc/ctc/wp-content/uploads/2015/09/S_2015_123_EN.pdf.%) (accessed 03 October 2020)
- “Brussels Police Stabbed in ‘Terror Attack’”, BBC, (5 October 2016), available at <https://www.bbc.com/news/world-europe-37563836> (accessed 25 March 2021)
- Burke Jason, “The Myth of the ‘Lone Wolf’ Terrorist”, *The Guardian*, (30 March 2017), <https://www.theguardian.com/news/2017/mar/30/myth-lone-wolf-terrorist#img-4> (Accessed 03 March 2021)
- Burton Fred, Stewart Scott, “The ‘Lone Wolf’ Disconnect”, (30 January 2008), *The Stratfor*, available at [www.stratfor.com/weekly/lone\\_wolf\\_disconnect](http://www.stratfor.com/weekly/lone_wolf_disconnect), (accessed 10 May 2020).
- Chmaytelli Maher and Kalin Stephen and Abdelaty Ali “Islamic State Calls for Attacks on the West during Ramadan in Audio Message”, *Reuters*, available at <https://www.reuters.com/article/us-mideast-crisis-islamicstate-idUSKCN0YC0OG>, (accessed 15 June 2021).
- “CIA Chief: Al Qaeda Poised to Attack U.S.”, *CBS* (2010). <https://www.cbsnews.com/news/cia-chief-al-qaeda-poised-to-attack-us/>. (accessed 05 June 2020).
- Clarke Colin, “Predicting the Next ISIS”, (08 October (2018), available at <https://nationalinterest.org/feature/predicting-next-isis-32822> (accessed 24 May 2020)
- Clemmow Caitlin, Bouhana Noémie, and Gill Paul, “Analyzing Person-Exposure Patterns in Lone-Actor Terrorism”, *Criminology & Public Policy*, 19(2) (2019), pp.1-31.

- Cohen Gili, "Eizencott: Out of 101 Knives Attacks We Did Not Have Even One Warning," *Haaretz* (18 January 2016), <http://www.haaretz.co.il/news/politics/1.2824704> (Hebrew)
- Colquhoun Cameron, "Tip of the Spear? Meet ISIS' Special Operations Unit, Katibat al-Battar", (16 February 2016), *Bellingcat*, available at <https://www.bellingcat.com/news/mena/2016/02/16/tip-of-the-spear-meet-isis-special-operations-unit-katibat-al-battar>, (accessed 15 June 2021).
- Corner Emily, Gill Paul, and Mason Oliver, "Mental Health Disorders and the Terrorist: A Research Note Probing Selection Effects and Disorder Prevalence" *Studies in Conflict & Terrorism* 39(6) (2016), pp.560-568.
- Cruikshank Paul, "A View from the CT Foxhole: An Interview with Alain Grignard, Brussels Federal Police", *CTC Sentinel*, 8(8) (2015), pp.7-10.
- de Bourmont Martin, M., "Rights Advocates Brace for Anti-Terrorism Bill", *Foreign Policy*. (03 October 2017)
- Ellis Clare, Pantucci Raffaello, Zuijdewijn Jeanine de Roy van, Bakker Edwin, Gomis Benoît, Palombi Simon and Smith Melanie, "Lone-Actor Terrorism: Analysis Paper" (Royal United Services Institute 2016)
- EUROPOL web site, <https://www.europol.europa.eu/publications-events/main-reports/tesat-report> (Accessed 18 July 2022).
- "European Union Terrorism Situation and Trend report 2015", (European Police Office 2015)
- Federal Bureau of Investigation web site, available at <https://www.fbi.gov/investigate/terrorism> (Accessed 08 October 2020).
- "Federal Bureau of Investigation Homegrown Violent Extremist Mobilization Indicators Booklet", (2019), available at [https://www.dni.gov/files/NCTC/documents/news\\_documents/NCTC-FBI-DHS-HVE-Mobilization-Indicators-Booklet-2019.pdf](https://www.dni.gov/files/NCTC/documents/news_documents/NCTC-FBI-DHS-HVE-Mobilization-Indicators-Booklet-2019.pdf), (accessed 20 October 2021)
- Feldman Matthew, "Comparative Lone Wolf Terrorism: Toward a Heuristic Definition", *Democracy and Security* 9(3) (2013), pp.270-286;
- Feve Sebastien, Bjornsgaard Kelsey, "Countering Lone-Actor Terrorism Series No. 3", (Royal United Services Institute for Defence and Security Studies Lone-Actor Terrorism Database Workshop 2016)
- "France to Deploy Soldiers after Spate of Attacks, *BBC*, (23 December 2014), available at <https://www.bbc.com/news/world-europe-30586798> (accessed 25 March 2021)
- "Frankfurt Airport Shooting may have Islamist Link, Say Police", *The Guardian*, (03 March 2011), available at <https://www.theguardian.com/world/2011/mar/03/frankfurt-airport-shooting-islamist-link?> (accessed 25 March 2021)
- "French police search home of man suspected of driving into soldiers", *The Guardian*, (09 August 2017), available at <https://www.theguardian.com/world/2017/aug/09/paris-police-hunt-driver-hit-soldiers-on-patrol-levallois-perret> (accessed 08 October 2020)

- Gill Paul, Horgan John and Deckert Paige, "Bombing Alone: Tracing the Motivations and Antecedent Behaviors of Lone-Actor Terrorists" *Journal of Forensic Sciences* 59(2) (2014), pp.425-435.
- Global Terrorist Groups Exploit Mentally ill People to Carry Out Attacks: Experts", The Straits Times, (12 May 2016), available at <https://www.straitstimes.com/world/global-terrorist-groups-exploit-mentally-ill-people-to-carry-out-attacks-experts> (accessed 25 March 2021)
- Goldman Adam, "Why Didn't the F.B.I. Stop the New York Bombing?" (21 September 2016). Available at <https://www.nytimes.com/2016/09/22/us/fbi-terror-ahmad-khan-rahami.html> (Accessed 10 October 2020)
- Gruenewald Jeff, Freilich Steven, Chermak Joshua, "Distinguishing 'Loner' Attacks from Other Domestic Extremist Violence A Comparison of Far-Right Homicide Incident and Offender Characteristics", *American Society of Criminology Criminology & Public Policy* 12(1) (2013), pp.65-91.
- Gruenewald Jeff, Pridemore William, "A Comparison Of Ideologically-Motivated Homicides from the New Extremist Crime Database and Homicides from the Supplementary Homicide Reports Using Multiple Imputation by Chained Equations to Handle Missing Values", *Journal of Quantitative Criminology*, 28(1) (2012), pp.141-162.
- Hafizoğulları Zeki, Kurşun Günel, "Türk Ceza Hukukunda Örgütlü Suçluluk", *TBB Dergisi*, (71) (2007), pp.25-80.
- Hamm Mark, Spaaij Ramon, "Lone wolf Terrorism in America: Using Knowledge of Radicalization Pathways to Forge Prevention Strategies", (U.S. Department of Justice 2015);
- Hamming Tore, "Jihadi Competition and Political Preferences", *Perspectives on Terrorism*, 11(6) (2017), pp.63-88.
- Hofmann David, "How 'Alone' are Lone-Actors? Exploring the Ideological, Signaling, and Support Networks of Lone-Actor Terrorists, *Studies in Conflict & Terrorism*, 43(7) (2018)
- Holt Thomas, Freilich Joshua, Chermak Steven, Mills Colleen and Silva Jason, "Loners, Colleagues, or Peers\_ Assessing the Social Organization of Radicalization", *American Journal of Criminal Justice*, 22(1) 2018, pp.83-105.
- Horgan John, Gill Paul, Bouhana Noemie, Silver James and Corner Emily, "Across the universe? A Comparative Analysis of Violent Behavior and Radicalization Across Three Offender Types with Implications for Criminal Justice Training and Education", (National Institute of Justice 2016)
- Jenkins Brian, "Stray Dogs and Virtual Armies Radicalization and Recruitment to Jihadist Terrorism in the United States Since 9/11", (RAND 2011)
- Jensen Richard, "The Pre-1914 Anarchist 'Lone Wolf' Terrorist and Governmental Responses", *Terrorism and Political Violence*, 26(1) (2014), pp.86-94.
- Joint Publication 3-26 Counterterrorism", (U.S. Army 2009)

- Kaplan Jeffrey, "Leaderless Resistance", *Terrorism and Political Violence*, 9(3) (1997), pp.80-95.
- Kaplan Jeffrey, Löow Helene and Malkki Leena, "Introduction to the Special Issue on Lone Wolf and Autonomous Cell Terrorism", *Terrorism and Political Violence* 26(1) (2014), pp.1-12.
- "Leytonstone knife attack: man convicted of attempted murder", *The Guardian*, (08 June 2016), available at <https://www.theguardian.com/uk-news/2016/jun/08/leytonstone-knife-attack-man-convicted-of-attempted> (accessed 16 October 2021).
- Lia Brynjar, "Al-Suri's Doctrines for Decentralized Jihadi Training – Part 1", *Terrorism Monitor*, 5(1) (2007), available at <https://jamestown.org/analyst/brynjar-lia/> (Accessed 15 May 2020)
- Lindekilde Lasse, Bertelsen Preben and M Stohl ichael. "Who Goes, Why, and With What Effects: The Problem of Foreign Fighters from Europe", *Small Wars and Insurgencies*, 27(5) (2016), pp.858-877.
- "Man Arrested in French Car Attack had Radical Beliefs", *The Washington Times*, (23 August 2017), available at <https://www.washingtontimes.com/news/2017/aug/23/man-arrested-in-french-car-attack-had-radical-beli/> (accessed 20 March 2021)
- Malthaner Stefan, Waldmann Peter, "The Radical Milieu\_ Conceptualizing the Supportive Social Environment of Terrorist Groups", *Studies in Conflict & Terrorism*, 37(12) (2014) pp.979-998
- Marchmont Zoe, Bouhana Noémie and Gill Paul, "Lone Actor Terrorists: A Residence-to-Crime Approach", *Terrorism and Political Violence*, 32(7) (2018), pp.1-16.
- Mccauley Clark, Moskalenko Sophia and Van Son Benjamin, "Characteristics of Lone-Wolf Violent Offenders: A Comparison of Assassins and School Attackers", *Perspectives on Terrorism* 7(1) (2013), pp.4-24.
- Meloy J. Reid, Gill Paul, "The Lone-Actor Terrorist and the TRAP-18", *Journal of Threat Assessment and Management*, 3(1) (2016), pp.37–52.
- Meloy J. Reid, Yakeley Jessica, "The Violent True Believer as a 'Lone Wolf' Psychoanalytic Perspectives on Terrorism", *Behavioral Sciences and the Law*, 32(3) (2014), pp.347–365.
- Morton Jesse, Silber Mitchell, "NYPD vs. Revolution Muslim: The Inside Story of the Defeat of a Local Radicalization Hub", *CTC Sentinel*, 11(4) (2018), p.5.
- Mueller Robert, "War on Terrorism", (Testimony before the Select Committee on Intelligence of the United States Senate 2003), <https://archives.fbi.gov/archives/news/testimony/war-on-terrorism> (Accessed 12 November 2020)
- Nesser Petter, "Single Actor Terrorism: Scope, Characteristics and Explanations", *Perspectives on Terrorism* 6(6) (2012), pp.61-73.
- Nesser Petter, Anne Stenersen and Emilie Oftedal, "Jihadi Terrorism in Europe: The IS-Effect", *Perspectives on Terrorism*, 10(6) (2016), pp.3-24.

- "Notre Dame Attacker 'Pledged Allegiance to IS in Video'", (07 June 2017), France24, available at <https://web.archive.org/web/20170719031955/http://www.france24.com/en/20170607-notre-dame-attacker-pledged-allegiance-video>, (accessed 20 March 2021).
- Pantucci Raffaello, "Developments in Radicalisation and Political Violence A Typology of Lone Wolves: Preliminary Analysis of Lone Islamist Terrorists", (King's College International Centre for the Study of Radicalisation and Political Violence 2011)
- "Paris attacks: Who were the attackers?", *BBC*, (27 April 2016), available at <https://www.bbc.com/news/world-europe-34832512> (accessed 16 October 2021).
- "Paris Knife Attacker was Known to Counter-Terrorism Police", (13 May 2018), *The Guardian*, available at <https://www.theguardian.com/world/2018/may/13/paris-knife-attacker-khamzat-azimov-known-to-counter-terrorism-police> (Accessed 08 October 2020).
- "Paris Police Killings: Minister Calls for 'Automatic Alerts'", *BBC*, (07 October 2019), available at <https://www.bbc.com/news/world-europe-49959827> (accessed 25 March 2021).
- Patton Christina, Fremouw William. "Examining 'Suicide by Cop': A Critical Review of the Literature, *Aggression and Violent Behavior* (27) (2016) pp.107–120.
- Phillips Peter, Pohl Gabriela, "Economic Profiling of the Lone Wolf Terrorist: Can Economics Provide Behavioral Investigative Advice?", *Journal of Applied Security*, 7(2) (2012), pp.151-177.
- Schuurman Bart, Bakker Edwin, Gill Paul, and Bouhana Noemie, "Lone Actor Terrorist Attack Planning and Preparation: A Data-Driven Analysis", *Journal Forensic Sciences*, 63(1) (2017), pp.1191-1200;
- Schuurman Bart, Lindekilde Lasse, Malthaner Stefan, O'Connor Francis, Gill Paul, Bouhana Noemie, "End of the Lone Wolf: The Typology that Should Not Have Been", *Studies in Conflict & Terrorism*, 42(8) (2017), 771-778.
- "Several injured in attack on train near Würzburg, southern Germany", *Deutsche Welle*, (18 July 2016), <https://www.dw.com/en/several-injured-in-attack-on-train-near-w%C3%BCrzburg-southern-germany/a-19408848> (accessed 08 October 2021)
- Smith Brent, Gruenewald Jeff, Roberts Paxton and Damphousse Kelly, "The Emergence of Lone Wolf Terrorism: Patterns of Behaviour and Implications for Intervention", *Sociology of Crime, Law and Deviance*, 20 (2015), pp.89–110.
- Spaaij Ramon, "The Enigma of Lone Wolf Terrorism: An Assessment" *Studies in Conflict & Terrorism* 33(9) (2010), pp.854-870;
- Spaaij Ramon, Hamm Mark, "Key Issues and Research Agendas in Lone Wolf Terrorism", *Studies in Conflict & Terrorism*, 38(3) (2015), pp.67-178.
- Sutherland Jacqueline, "How Is ISIS Able to Commit Acts of Terror as It Loses Territory?", (08 November 2017), *The National Interest*, available at <https://nationalinterest.org/feature/how-isis-able-commit-acts-terror-it-loses-territory-23111> (accessed 15 June 2021)

- “Syria Releases the 7/7 Mastermind”, *The Telegraph* (04 February 2012), available at <https://www.telegraph.co.uk/news/uknews/terrorism-in-the-uk/9061400/Syria-releases-the-77-mastermind.html>, (Accessed 20 May 2020).
- Teich Sarah, “Trends and Developments in Lone Wolf Terrorism in the Western World an Analysis of Terrorist Attacks and Attempted Attacks” (IDC Herzliya International Institute of Counter Terrorism October 2013)
- The Terrorist Radicalization Assessment Protocol-18 / TRAP-18.
- The Threat from Solo Terrorism and Lone Wolf Terrorism”, (Politiets Efterretningstjeneste Center For Terroranalyse 2011)
- “UK Facing Most Severe Terror Threat Ever, Warns MI5 Chief”, *The Guardian*, available at <https://www.theguardian.com/uk-news/2017/oct/17/uk-most-severe-terror-threat-ever-mi5-islamist> (Accessed 05 July 2021).
- United Nations Security Council Resolution 2178”, (2014), available at <https://www.un.org/securitycouncil/s/res/2178-%282014%29> (accessed 03 October 2020);
- Weimann Gabriel, “Lone Wolves in Cyberspace”, *The Centre for the Study of Terrorism and Political Violence*, 3(2) (2012), pp.75-90.