Global Jihad Explained?

A critical review of the post-9/11 literature on the causes of global jihadi terrorism

Ole Martin Stormoen

Master's Thesis
Peace and Conflict Studies
Department of Archaeology, Conservation and History

UNIVERSITETET I OSLO

29 April 2016

2016

Global Jihad Explained?

Ole Martin Stormoen

http://www.duo.uio.no/

Trykk: CopyCat AS, Forskningsparken

Abstract

Global jihadi terrorism remains a threat to Western societies nearly fifteen years after the 9/11 attacks. Despite the sustained and costly War on Terror, the phenomenon of global jihadi terrorism is, and will likely remain a threat for decades to come. What do we know about the causes of this form of terrorism, and upon what empirical basis is this knowledge based? This thesis offers a review of the post-9/11 scholarly literature on the causes of global jihadi terrorism. The review is particularly aimed at assessing explanations at the individual- and group-level. Furthermore, the review examines whether the empirical basis and methodological procedures employed in the studies in question support the conclusions and explanations offered by their authors. While select studies present robust findings and explanations, a large swath of the scholarship lacks a solid empirical basis, and offers little transparency and rigor. Despite the dearth of high quality data and methodological stringency, many authors fail to properly communicate the limitations, shortcomings and contingencies of their conclusions. Therefore, there is an urgent need for robust, reliable and methodologically sound empirical studies that can provide a more solid foundation for valid explanations, generalizations and contingent theory-building.

Acknowledgements

> There are literally more books on terrorism than even the most eager student could read in a lifetime. Because of the flood of books, papers, articles and news items and many other sources, the prospect of assembling a literature review on any aspect of terrorism is disheartening even to the most dedicated student.[1]

Reading is (mostly) fun. Contemplation is sometimes challenging. Writing often borders on painful. Though I am the author, this document would not be in existence without the generous support and encouragement I have received throughout the process.

I must thank my fellow students. First and foremost for being great friends, but also for offering help and fruitful discussions. I must also thank my thesis supervisor, Professor Brynjar Lia, for acting as a guide to the dark and gloomy, but intensely interesting world of terrorism. His advice has been indispensable.

Without the support and encouragement of my family and friends, I would not have succeeded. You are far too many to mention, but you know very well who you are. Thank you for the practical help, the pat on the back, and the friendly reminders to put things in perspective. After all, there is *far* more to life than putting words in a certain order.

Most importantly: For accepting and handling my mental and physical absence, offering nothing but understanding and staunch determination in return. Without your unwavering support and encouragement, this project would never have come to fruition. To Linda; my best friend and the best mother Albert could ever ask for. This is for you.

[1] John Horgan, *The Psychology of Terrorism* (Abingdon: Routledge, 2005), p. xii.

Table of contents

1 Introduction and background

1.1 Background and main question

The events of the last two decades have proven that jihadi terrorism[2] poses a substantial threat to Western societies.[3] Attacks deliberately targeting civilians have occurred at a growing rate since the turn of the millennium.[4] The devastating 9/11 attacks provoked a heavy-handed Western response, in the form of the U.S.-led War on Terror. The rhetoric used by President Bush and other representatives of the U.S. government suggested that this was a battle between the forces of good and the forces of evil[5], the "civil and the savage".[6] The dichotomous clash-of-civilization mindset mirrored the one promoted by al-Qaida, as Osama bin Laden framed the attacks as part of a conflict between the "world crusaders allied to Jewish Zionists" and "the Islamic world."[7]

The War on Terror has proven to be extremely costly, in terms of both lives and treasure. The countermeasures enacted in many Western societies have encroached on civil liberties, and led to tacit acceptance of practices such as the so-called "enhanced interrogation techniques" used on detainees believed to be in possession of vital information.[8] The ongoing war has failed to remove the threat posed by violent jihadism, and it is believed by some scholars to be a cause of the terrorism it aims to prevent.[9] Since 9/11, the West has experienced numerous attacks and thwarted plots. Alarmingly, recent events and conflicts in the Arab world, the flow of Western recruits to the battlefields of the Middle East, and the continued dissemination of jihadist propaganda have led to fears of a substantial "blowback" effect,

[2] See section 1.3 on terminology for a discussion on important and controversial concepts applied in this review.
[3] Frazer Egerton, *Jihad in the West: The Rise of Militant Salafism* (Cambridge: Cambridge University Press, 2011), p. 3. As Egerton points out, "this is another contested term. As Hall (1992) and others note, it is often a political/ideological construction. It is understood here as simply the geographical area encompassing Australasia, North America and Europe."
[4] Western societies had previous experiences with Jihadist attacks, but the period after 9/11 is characterized by an increase in both lethal and thwarted attacks. See Petter Nesser, "Jihad in Europe: Patterns in Islamist terrorist cell formation and behavior, 1995-2010" (Phd diss., University of Oslo, 2011).
[5] "Bush on finding the terrorists", *The Washington Post*, Sept. 13, 2001. Accessed March 23, 2015. http://www.washingtonpost.com/wp-srv/nation/transcripts/bushtext2_091301.html.
[6] John Ashcroft, "Testimony before the House Committee on the Judiciary 24 September 2001", *fas.org*. Accessed March 23, 2015. http://fas.org/irp/congress/2001_hr/h092401_ashcroft.html.
[7] Michael Scheuer, *Osama bin Laden* (Oxford: Oxford University Press, 2011), p. 115.
[8] Wilson Andrews and Alicia Parlipiano, "A History of the C.I.A.'s Secret Interrogation Program", *nytimes.com*, Dec. 9, 2014. Accessed March 23, 2015. http://www.nytimes.com/interactive/2014/12/09/world/timeline-of-cias-secret-interrogation-program.html.
[9] Robert A. Pape, "It's the Occupation, Stupid", *Foreign Policy*, Oct. 18, 2010.

likely to remain with us for decades to come.[10] The ascendancy of the Islamic State (IS), with its uncurbed rhetorical and practical intent to kill Westerners, has done nothing to put these fears to rest. At the time of writing, many Western citizens are plotting to execute terrorist operations aimed at their fellow countrymen. Why? Would it suffice to explain these attacks by dismissing the jihadists and their supporters as irrational and apocalyptic lunatics? How well do we understand the causes of these unhinged and shocking acts of violence?

Parallel to the political and military efforts to eradicate the threat from al-Qaida and al-Qaida-affiliated groups and individuals, the post-9/11 period was characterized by a growing number of scholars who focused on understanding the underlying causes of this violent phenomenon. The academic output skyrocketed, raising hopes for more high quality research that could move us closer to an understanding of the occurrence these attacks on innocent civilians.[11] Still, contemporary terrorism research has been criticized for a lack of primary sources[12], scientific methodology, for being biased, and for suffering from the presence of self-titled "experts".[13] Despite these alleged shortcomings, scholars argue that the field has produced valuable insights in the post-9/11 period.[14]

The forging of precise countermeasures requires a thorough understanding of the phenomenon. Not only for the day-to-day prevention of terrorism, but also as foundation for a

[10] Global Jihadi terrorism has been documented to be intimately linked to earlier conflicts such as the Afghan-Soviet conflict and the 2003 invasion of Iraq. These conflicts offered recruits training, and served as arenas in which networks of like-minded individuals could be established. Some of those involved in the conflicts later took the fight to the West, in the form of terrorist operations on Western soil. They went "global". The unprecedented numbers of Western recruits that have joined various jihadi factions in the Syrian conflict therefore give ample reason to suspect that the conflict will generate a similar "blowback"-effect as the organization come under increasing pressure. The recent attacks in Europe serve as an illustrative example of this phenomenon. See for example Petter Nesser, "Jihadism in Western Europe after the invasion of Iraq: Tracing motivational influences from the Iraq war on Jihadist terrorism in Western Europe." *Studies in Conflict & Terrorism*, 4 (2006), pp. 323-342; Thomas Hegghammer, "Should I Stay or Should I Go? Explaining Variation in Western Jihadists' between Domestic and foreign Fighting", *American Political Science Review*, 1 (2013).

[11] See for example Andrew Silke, "Research on Terrorism: A Review of the Impact of 9/11 and the Global War on Terrorism", in Hsinchun Chen, Edna Reid, Andrew Silke, Joshua Sinai and Boaz Ganor (eds.), *Terrorism Informatics: Terrorism Informatics: Knowledge Management and Data Mining for Homeland Security* (New York: Springer, 2008), p. 27-50; Alex P.Schmid "Comments on Marc Sageman's Polemic "The Stagnation in Terrorism Research", *Terrorism and Political Violence*, 4 (2014), p. 587-595.

[12] See for example Bart Schuurman and Quirine Eijkman, "Moving Terrorism Research Forward: The Crucial Role of Primary Sources", background report for the International Center for Counter-Terrorism (The Hague: 2013). http://www.icct.nl/download/file/Schuurman-and-Eijkman-Moving-Terrorism-Research-Forward-June-2013.pdf.

[13] Marc Sageman, "The Stagnation of Terrorism Research", *Terrorism and Political Violence*, 4 (2014) pp. 566-576.

[14] Schmid 2014:595.

proactive and efficient long-term strategy. Acting on a shaky theoretical and empirical foundation is at best inefficient – the resources allocated to the prevention of terrorism are not unlimited and must obviously be administered wisely. At worst, acting without a proper understanding of the phenomenon is dangerous and potentially counter-productive – with unnecessary suffering as a consequence.

This study aims to identify and present the research on causes of global jihadi terrorism at the individual and group levels of explanation.[15] What are the most prevalent theories and hypotheses and what are the main points of dispute? Insights and findings from in-depth case studies of plots, attacks, individuals, groups and organizations will serve to contrast (and possibly validate) the proposed explanations and causal relationships with the available empirical evidence. By presenting and assessing the quality[16] of the existing scholarly work, this survey will offer an overview of what we know, and what we do not know about the causes of global jihadi terrorism. This may contribute to a richer portrayal of the subject, but, more importantly, point to the strengths and weaknesses of the available scholarly output.

In short, the main aim of the review is to answer the following questions:

What are the causes of global jihadi terrorism, according to the post-9/11 scholarly literature, and to what extent are these causes empirically verified?

Arriving at a satisfying answer to the main research question requires that some attention is awarded to important analytical, methodological, and conceptual puzzles and challenges. Preceding the review itself, this introductory chapter explains the scope and limitations of the review, describes the method used for the selection of literature, followed by a presentation of important terms/concepts, the analytical structure, and the procedure for assessing the quality or rigor of the research. The chapter concludes with a brief rundown of the various notions of causation associated with different research traditions, and how this shapes the methods and aims of their research on cause and effect.

[15] The scope of the review is discussed in section 1.2.1.

[16] In the context of this review, "quality" refers to the degree of scientific rigor found in the research, and subsequently determines to what extent the claims are solid and trustworthy. A discussion of the general criteria that guides the assessment is found in section 1.3.2.

1.2 The scope, the selection of literature and the potential sources of error

1.2.1 The scope: Explanation and justification

Several factors limit, shape and guide the scope of this review. Feasibility concerns put constraints on how much material to include. The ideal review is completely exhaustive. Still, even the most comprehensive of searches would fall short of that ideal. Striking a balance between relevance and exhaustiveness is a more realistic endeavor.[17] Though not completely exhaustive, the literature presented in this review is still judged to be representative of the most prevalent causal explanations.[18] This review will *mainly* deal with the post-9/11 scholarly literature. This delineation is not chosen arbitrarily, but is a consequence of the fact that the scholarly (and non-scholarly) output rose dramatically following the attacks. For obvious reasons, this literature has had a particular focus on the threat from al-Qaida.[19]

The primary focus of this survey or review is the scholarly literature that, explicitly or implicitly, offers theories and hypotheses that purports to show the causes that propel jihadi terrorists to attack the West. For various reasons, the proposed causal relationships are not always accompanied by bolstering, empirical evidence. Likewise, the more empirically focused works sometimes lack the rigorous framework needed to produce robust insights applicable outside of the case or cases under study.

This review's specific analytical focus is on the scholarship that seeks answers at the individual and group levels of explanation. In other words, scholarship where the individual and the group are the primary units of analysis and comparison, perhaps best explained as the "sub-societal" explanations of why this form of terrorism occurs. This may range from an individual's psychological traits to the impact of various exogenous factors on said individual, particularly those who are found within a group setting. This specific focus is determined by

[17] Andrew Booth, Diana Papaioannou and Anthea Sutton, *Systemic Approaches to a Successful Literature Review* (London: Sage, 2012), p. 24 and 61.

[18] Throughout the literature, these proposed explanations are presented in various forms and under a variety of banners, such as for example "theory", "hypothesis", "proposition", "factor", "variable", "mechanism", and others. See section 1.3.2 for a presentation of the concept of causation as applied in the social sciences and analytical humanities, and the different manifestations and understandings one may find in the literature under review.

[19] Edna Reid and Hsinchun Chen, "Domain Mapping Contemporary Terrorism", in Hsinchun Chen, Edna Reid, Andrew Silke, Joshua Sinai and Boaz Ganor (eds.), *Terrorism Informatics: Terrorism Informatics: Knowledge Management and Data Mining for Homeland Security* (New York: Springer, 2008), p. 3-26.

practical and methodological matters. The research output is vast. To be able to scrutinize the research in detail, within the boundaries of this thesis, it was deemed unrealistic to cover all levels of explanation. The delineation of these levels is not always crisp or obvious, as causes may operate at both an individual and societal level simultaneously. Poverty, as an example, can be hypothesized to play an important role when one focus on the individual as the unit of analysis, but also when the occurrence of terrorism is analyzed at a higher level of explanation - for example by examining causes across societies or states. It can also be argued that the research at the individual and group levels of explanation is more likely to offer context-specific and contingent explanations for the particular subset of terrorism that is the subject of this review.[20]

The survey may include studies from the general literature on terrorism, when useful in illuminating perspectives that are rooted in "mainstream" terrorism research. Just as terrorism studies draw heavily on the political violence literature, the general terrorism literature is a vital part of the literature on the causes of jihadi terrorism. Some contributions do not *exclusively* address global jihadi terrorism, but are nonetheless included as they offer perspectives and examine phenomena that are highly relevant to the debate portrayed in the survey.

Justifying the scope

At the outset, it seems reasonable to offer a justification of the particular focus on global jihadi terrorism. First, there exist literature reviews of the "general" literature on causes of terrorism, but this author has yet to see a comprehensive and critical review applying the particular focus presented in this survey.[21] As witnessed over the last two decades, jihadi

[20] Alexander L. George and Andrew Bennett suggest that research focusing on sub-sets offers context-contingent insights that are more policy-relevant than insights of an abstract or general character. These "middle-range typological theories, which identify recurring conjunctions of mechanisms and provide hypotheses on the pathways through which they produce results, *provide more contingent and specific generalizations* for policymakers and allow researchers to contribute to more nuanced theories" [This author's emphasis]. See Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge: MIT Press, 2005), pp. 7-8, 263-285.

[21] During this review process, Mohammed Hafez and Creighton Mullins published an article applying a somewhat similar analytical categories/framework. Their article is a theoretical synthesis of the reviewed literature, rather than a critical assessment of the quality and rigor of the research.
Mohammed Hafez & Creighton Mullins, "The Radicalization Puzzle: A Theoretical Synthesis of Empirical Approaches to Homegrown Extremism", *Studies in Conflict & Terrorism*, 11(2015), pp. 958-975.

terrorism is a persistent threat to Western societies,[22] receiving massive attention in the media, sparking (at times, simplistic) debates, and prompting a massive, multi-pronged response from Western authorities. This warrants an examination of what we think we know[23], and what we do not know about the proposed causes of this particular sub-set of terrorism.

Second, the rise of global jihadi terrorism, and the apparent salience of the jihadi message is remarkable, even though scholars argue whether the labelling of this threat as a "new" form of terrorism is accurate and valid.[24] Many noted scholars have offered sharp criticism of this alleged "newness", some pointing to earlier incidents of indiscriminate, mass casualty attacks perpetrated by religiously motivated groups.[25] Still, if "new" is conceptualized as "never seen before", it is hard to argue that there is anything distinctly new about this proposed wave.[26] It is rather a matter of how some characteristics are particularly striking and dominant when assessing the nature of contemporary jihadi terrorism.

This review does not aim to establish a clear-cut frontier separating causes of global jihadi terrorism from those of other manifestations. These distinctions are often gradual and fluid. Still, it is worth mentioning some relevant traits that may suggest reasons to at least consider that the occurrence and rise of global jihadi terrorism represents a qualitative change or evolution, and that the causes of this rise may differ from that of other forms. This, in turn, may imply that some causal relationships have particular explanatory power in relation to this phenomenon or in the specific contexts where this phenomenon occurs.

Seen as being part of the religious "fourth wave" of terrorism[27], the jihadi movement is global in its reach. The allure of their message has provided the ability to recruit members, plot, and execute attacks worldwide[28], thereby contributing to the proliferation of suicide tactics.[29]

---

[22] It is important to note that the lion's share of victims is non-Western, often killed in attacks perpetrated within the context of a domestic conflict. The countries most prone to terrorism are characterized by the presence of one or several jihadi groups employing terrorist tactics.
See for example "Global Terrorism Index Report 2014", *The Institute of Economics and Peace.* Available at http://www.visionofhumanity.org/sites/default/files/Global%20Terrorism%20Index%20Report%202014_0.pdf Visionsofhumanity.org.

[23] Note that scholarly consensus on the nature of a causal relationship does not necessarily mean validation of said relationship.

[24] See for example E. N. Kurtulus, "The 'New Terrorism' and its Critics", *Studies in Conflict and Terrorism,* 6 (2011), pp. 476-500.

[25] Kurtulus 2011:481.

[26] Kurtulus 2011:481.

[27] See David C. Rapoport, "The four waves of rebel terror and September 11" *Anthropoetics,* 1 (2002), pp. 1-17.

[28] Brynjar Lia, "Al-Qaida's appeal: Understanding its unique selling points." *Perspectives on Terrorism*, 8 (2010), pp. 5-7.

Numerous accounts of the imminent demise of the movement have been offered[30] but it has proved to be remarkably resilient and adaptive, despite the unprecedented counter-measures. Recent developments in the Middle East have led some to suggest that the threat from jihadi terrorism is likely to remain with us for decades to come,[31] partly owing to the fact that global jihadi groups thrive on both domestic and international conflicts, strategically adjusting their targeting hierarchies to remain relevant at all times.[32]

A particularly grim trait of jihadi terrorism is the evident lack of constraint. Traditionally, terrorists in general wanted "a lot of people watching, not a lot of people dead."[33] Contemporary jihadi groups purposely and often indiscriminately kill a large number of civilians, evident from both executed attacks and the numerous thwarted plots. The extent of the killing is often restricted only by lacking capacity. Though often framing their attacks by way of earthly grievances, they are careful to present the religious imperative and justification for these actions. In addition, they go to great lengths to communicate these excesses, thereby securing that the message gets across to its intended audience. [34]

In spite of the massive counter-effort, the recruitment, plotting and attacks continue. What can explain the allure, resilience and global appeal of their message and why are so many willing to resort to violence in support of the global jihadi movement? This review is to be regarded as an attempt to map and assess our knowledge of the causes of global jihadi terrorism.

1.2.2 The search methodology and selection criteria

[29] See for example Martha Crenshaw, "Explaining Suicide Terrorism: A Review Essay", *Security studies*, 1 (2007), pp. 133-162.
[30] See for example Fawaz A. Gerges, *The Rise and Fall of al-Qaeda* (Oxford: Oxford University Press, 2011. Revised paperback edition).
[31] "A very conservative estimate would be 15 to 20 years, and I suspect it will last longer." Quote from Thomas Hegghammer's reply to Q574 in his testimony at The House of Commons, Tuesday February 11, 2014. See, "Home Affairs Committee - Minutes of Evidence HC 231". Available at http://www.publications.parliament.uk/pa/cm201314/cmselect/cmhaff/231/140211.htm.
[32] Thomas Hegghammer, "The Ideological Hybridization of Jihadi Groups", *Current Trends in Islamist Ideology*, 9 (2009), pp. 26-45.
[33] As expressed by Brian Michael Jenkins in *Will Terrorists Go Nuclear?* (Rand Corporation, 1975), p. 4.
[34] See for example Judith Tinnes, "Although the (Dis-) Believers Dislike it: a Backgrounder on IS Hostage Videos–August-December 2014." *Perspectives on Terrorism*, 1 (2015), pp. 76-94.

Two strategies were utilized to identify relevant articles, reports and books. Using the most relevant peer-reviewed journals[35], terrorism literature reviews, subject specific bibliographies, compilations and studies[36], articles were identified and judged by the relevance of the title, abstract, main argument and research question (if present). The compilations, bibliographies and review articles also pointed to books regarded as seminal in the field. These frequently-cited works function as useful links to relevant work on the same topic. By combing through the sources referenced in the literature, scholarly work not originating from the aforementioned sources was also identified. This "snowball"-technique is an efficient way of identifying relevant work. At the same time there is the obvious danger of only identifying work from one discipline, from within a confined circle of scholars or from one strain of scholarship.

To complement the "manual" approach, I also searched relevant terms and concepts[37] in the following databases: *Web of Science, Google Scholar, JSTOR, Taylor & Francis Online,* and *PsycInfo.* These searches yielded contributions from a variety of disciplines. Most contributions stem from peer-reviewed journals and/or renowned academic publishers. This served to separate scholarly contributions from works suffering from glaring bias issues, such as policy-oriented reports, journalistic accounts and mere opinion pieces.

While using techniques aimed at increasing the objectivity of the selection process, a certain degree of subjective judgement has nevertheless been unavoidable. That being said, the literature search conducted has to *a large extent* been guided by a set of criteria created to insert a degree of objectivity into the search process. The literature is *generally* restricted to:

[35] Daryl R. Bullis and Richard D. Irving, "Journals Supporting Terrorism Research: Identification and Investigation into Their Impact on the Social Sciences", *College & Research Libraries,* 2 (2013), p. 119-130.
[36] G. Duncan and A.P. Schmid, "Q. The Aetiology of Terrorism", in *The Routledge Handbook of Terrorism Research,* ed. Alex P. Schmid (London: Routledge, 2011), pp. 530-534; Judith Tinnes, "100 Core and Periphery Journals for Terrorism Research", *Perspectives on Terrorism,* 2 (2013), p. 95-103; Eric Price, "Literature on al-Qaida", *Perspectives on Terrorism,* 1 (2013), not paginated; David C. Hofmann and Alex P. Schmid, "Selected Literature on (i) Radicalization and Recruitment, (ii) De-Radicalization and Dis-Engagement, and (iii) Counter-Radicalization and Countering Violent Extremism", *Perspectives on Terrorism,* 6 (2012), pp. 114-143; Aaron Y. Zelin, "Jihadi Studies Bibliography", *jihadology.net,* updated Dec. 15, 2012. Available at http://jihadology.net/2013/01/02/jihadology-presents-jihadi-studies-bibliography-v-1-0/; Randy Borum, *Psychology of Terrorism,* review report from the University of South Florida, Tampa, Department of Mental Health Law and Policy (2007). Available at http://www.dtic.mil/dtic/tr/fulltext/u2/a494527.pdf; Bullis and Irving 2013:119-130.
[37] For a complete list of search terms, see appendix A.

1. Literature published post-9/11.[38]

2. Literature that proposes causal relationships related to the occurrence of global jihadi terrorism, and/or phenomena that are highly relevant to this debate, using the individual and the group as the main unit of analysis.

3. Scholarly literature, meaning articles and books written by researchers, scholars and noted practitioners, published by recognized publishers. The articles are sourced from peer-reviewed[39] journals, and books are authored by noted scholars and/or experts in their respective fields of study. [40]

4. English-language scholarship.

1.2.3 Limitations and potential sources of bias and error

Despite the precautions taken to offer a transparent, replicable and representative selection process, there are some possible shortcomings and potential sources of bias present. First, and most obvious, the Western (or perhaps Anglo-American) focus may leave out perspectives and contributions of value to the debate.[41] Furthermore, the decision to restrict the scope to literature produced in the aftermath of 9/11 may blur possible continuity and common insights shared by contemporary and less recent "mainstream" terrorism research.

Second, the scope of the review does not allow for a rigorous testing of the causal claims, a replication of studies or a meticulous examination of the primary source material. The survey should be regarded as an *assessment* of the strengths and weaknesses of the included scholarship. This includes a critical examination of the degree of correspondence between

[38] The review does not include literature published later than December 31, 2015.
[39] A peer-review does not always weed out bad scholarship and/or dubious claims. Still, it functions as a preliminary assessment of quality or rigor. See for example Ole Bjørn Rekdal, "Academic urban legends", *Social Studies of Science*, 4 (2014), pp. 638-654.
[40] The review contains some contributions from the so-called "grey" literature, defined as "[i]nformation produced on all levels of government, academics, business and industry in electronic and print formats not controlled by commercial publishing, i.e. where publishing is not the primary activity of the producing body". One should be particularly vary of potential sources of bias in work that has not been subject to a peer-review, and assess to what degree the scholarship is influenced by interests or priorities that inhibits the independence and neutrality of the scholars. Still, by including influential "grey" scholarship, it is argued that the review is a more representative portrayal of the field of study, and serves to possibly alleviate "publication bias" that may exclude important or influential work. See Booth et al 2012:77-78.
[41] This is a recurring issue in literature reviews. See Booth et al. 2012:23.

claims, the applied methodology and the empirical evidence at offer. This implies that the review may include both theoretical scholarship and more empirically focused work. A juxtaposition of the two may offer clues as to how well theories matches the empirical evidence presented in various case studies.

Third, databases often rank scholarship by way of citations. This number is not necessarily a measurement of quality or rigor. What it does signal is to what degree the work is influential, controversial or in other ways contributes to the debate. It is assumed that the high quality scholarship is caught in the crossfire of "manual" and "mechanical" searches, but there is the possibility missing out on scholarship that for various reasons is not cited by other authors or published in influential or relevant journals.

The selection procedure is not, and cannot be, entirely objective. It is not exclusively "mechanical", as it is partly guided by a subjective interpretation and assessment of relevance and merit. Still, strictly using databases and searching by keywords would raise questions about the appropriateness of relying entirely on search engines. The subjectivity could be controlled by triangulating these judgments by adding second opinions of others, an option not feasible for this thesis. The applied combination of techniques is therefore judged to offer a procedure that balances transparency, relevance, and replicability.

Concerning the scope of this survey, there is one omission that should be acknowledged. Although the internet is not a cause of terrorism in itself it still it has an apparent potential to magnify the effects of the causes presented in the review. Internet plays a large role in the dissemination of information, communication, and is by some scholars thought to offer a virtual equivalent to real life group processes. The limited scope of this thesis does not allow for an assessment and examination of the voluminous internet-related corpus.[42]

1.3 Terminology, framework, rigor, and a note on causation

1.3.1 Terminology: What are we talking about?

[42] For an up-to-date, extensive and thorough assessment of the state of this scholarship, see Maura Conway, "Determining the Role of the Internet in Violent Extremism and Terrorism: Six Suggestions for Progressing Research", *Studies in Conflict & Terrorism* (2016), pp. 1-22.

Terrorism

Many of the most recurring terms in the debate are contested and controversial, and this is certainly the case for the term "terrorism". The lack of a commonly accepted definition is a lingering issue in the scholarly output, and the literature contains numerous attempts at forging an objective and universally accepted definition of the concept. "Terrorism" has taken on a pejorative meaning, and definitions of the term are often tailored to be applied to one's enemies or to fit a certain outlook, position or agenda. Labelling an act as terrorism constitutes a "moral judgment".[43] This conceptual tailoring or "stretching" may go as far as making the term too inclusive or vague, opening up room for a variety of interpretations, uses and misuses.

The conceptualizations differ on what aspects of terrorism that are highlighted when differentiating terrorism from other forms of political violence. Some focus on the act of terrorism itself; others pinpoint the attributes of the actors, the intentions or motivation of the perpetrators.[44] Other aspects are also used to differentiate various forms or types of terrorism. Examples include the nature of the target(s), operational patterns, religious or ideological affiliation, and several other dimensions. In reality, the various terrorist groups do not always fall neatly into the categorical boxes, as these groups may shift strategies, employ a variety of tactics or in other ways fail to fit the typologies. As an example, Jihadi groups such as al-Qaida and IS are known to have struck both military and civilian targets, using a variety of tactics, and executed attacks against both the "near" and "far" enemy.[45]

Needless to say, this review will examine literature that is not uniform in its conceptualization. This creates difficulties, as the task of assessing and juxtaposing the research findings is very much reliant on such findings being related to a phenomenon of a somewhat similar nature. Comparing research with *vastly* differing conceptualizations would make the comparison far less fruitful.[46] Definitions matter, as they tell us what the research examines, and perhaps more importantly; in what other case(s) or context(s) the proposed

[43] Bruce Hoffman, *Inside Terrorism* (New York: Columbia University Press, revised and expanded edition, 2006), p. 23.
[44] Leonard Weinberg, Ami Pedahzur and Sivan Hirsch-Hoefler, "The Challenges of Conceptualizing Terrorism", *Terrorism and Political Violence*, 4 (2004), p. 778-779.
[45] Nesser 2011b:15.
[46] Research based on a definition that, for example, define attacks on military personnel in the context of an armed conflict as terrorism may be of limited value, if one is interested in understanding the causes of terrorism aimed at non-combatants in otherwise peaceful societies. The conflation of terrorism and other forms of violence will water down the concept and greatly reduce its analytical value.

cause(s) are applicable. The particular focus on global jihadi terrorism goes some way in alleviating the conceptual entanglement. There is less confusion as to what we are actually talking about when we descend the ladder from the general to the more specific form of terrorism that is the focus of this study.

Global jihad

When assessing the literature, though there may be minor discrepancies, more scholar unity is to be found when it comes to the characteristics of terrorism labelled as "global jihadi". The term describes the militant jihadi groups or networks that are primarily global in discourse and behavior.[47] Western targets are often labelled as "the far enemy", primarily understood as the Unites States, Israel, and their Western allies. Using alleged Western transgressions against Islamic countries as justification for their activities[48], they judge attacks on civilians as a legitimate form of retaliation in the global battle between the West and Islam.

These groups, as a rule of thumb, fall within the jihadi faction of the Salafi branch of Sunni Islam. The Salafi movement has a particular emphasis on emulating "the first three generations of Islam referred to as the pious forefathers".[49] They vehemently oppose human rationality, and any modern "innovations in belief and religious practice".[50] On its own, the term "Salafi" does not reveal whether these groups are likely to engage in or endorse violent activities. Salafists can be apolitical and violent. Others reluctantly participate in democratic elections, reject violence and advocate their cause through peaceful proselytizing.[51] Doctrinal disputes are plentiful, and these are but a few of those found within the Salafi movement. Most relevant to our undertaking, according to Quintan Wiktorowicz, the disagreement on the

[47] Thomas Hegghammer, "Jihadi-Salafis or Revolutionaries? On Religion and Politics in the Study of Militant Islamism," in *Global Salafism: Islam's New Religious Movement*, ed. Roel Meijer (London and New York: Hurst/Columbia University Press, 2009), p. 260.
[48] Quintan Wiktorowicz and John Kaltner, "Killing in the name of Islam: Al-Qaeda's justification for September 11" *Middle East Policy*, 2 (2003), pp. 84-85.
[49] Roel Meijer, *Global Salafism: Islam's New Religious Movement* (London: C. Hurst & Co., 2009), pp. xiii-xiv.
[50] Brynjar Lia, "Chapter 5: Jihadi Strategists and Doctrinarians", in *Self-Inflicted Wounds: Debates and Divisions within al-Qai'da and its Periphery,* report from the Harmony Project at Combating Terrorism Center, ed. Assaf Moghadam and Brian Fishman (West Point, 2010), p. 102, www.ctc.usma.edu.
Thomas Hegghammer, "Jihadi-Salafis or Revolutionaries? On Religion and Politics in the Study of Militant Islamism," in *Global Salafism: Islam's New Religious Movement*, ed. Roel Meijer (London and New York: Hurst/Columbia University Press, 2009), p. 251-260.
[51] William McCants, "The lesser of two evils: the Salafi turn to party politics in Egypt", *Middle East Memo,* no. 23 (May, 2012), pp. 1-8. Available at http://www.brookings.edu/~/media/research/files/papers/2012/5/01-salafi-egypt-mccants/0501_salafi_egypt_mccants.pdf.

importance of Jihad is the main fault line separating the militants from the other branches of Salafism. Despite their differences,

> Jihadis continue to use the same texts, quotes, and religious evidence as other Salafis, but they have developed new understandings about context and concepts such as "belief," "defense against aggression," and "civilians."[52]

The label "Salafi-Jihadi" does not reveal which type of jihad is preferable, or if fighting the local regime is seen as legitimate. The Salafi-Jihadi can be divided into camps that either support defensive, "classic jihad", that is the fight to expel infidels from traditional Muslim lands, where violence is usually confined to the actual conflict zone. The Soviet-Afghan war exemplifies the archetypical "classic" Jihad. The other camp advocates "global" Jihad as legitimate and preferable. Among the latter there are severe disagreements concerning strategies and doctrine, but agreement on the permissibility and merit of targeting Western civilians with "all means in all places".[53]

For some Jihadi groups the fight against other Muslims is equally important as fighting Westerners.[54] The internecine hatred, especially aimed at Shiites[55], is evident in the atrocities conducted by the Islamic State (IS) in Iraq, Syria and elsewhere. The sectarian nature of the conflicts exemplifies how some terrorist organizations simultaneously target Shiites and other apostate sects, the local regime ("near enemy") and the infidel occupiers ("the far enemy"), the latter both in the conflict zone and in the West. This dual or "hybrid" strategy reveals an enemy hierarchy that is fluid or perhaps determined by capacity and opportunity, rather than a static prioritization of ideal targets. A "global" or "far enemy" stance does not necessarily exclude other strategies. In fact, terrorist organizations execute terrorism campaigns at the

---

[52] Quintan Wiktorowicz, "A Genealogy of Radical Islam", Studies in Conflict and Terrorism, 2 (2005), p. 76.
[53] Thomas Hegghammer, *Jihad in Saudi Arabia* (Cambridge: Cambridge University Press, 2010), p. 6.
[54] Reuven Paz labels this radical interpretation of jihad as "total Jihad" or "Jihadi-*takfiri*", and hesitates to use the term "Salafi" to describe such extreme groups. See Reuven Paz, "Debates within the Family: Jihadi-Salafi Debates on Strategy, *Takfir*, Extremism, Suicide Bombings, and the Sense of Apocalypse", in *Global Salafism: Islam's New Religious Movement*, ed. Roel Meijer (London and New York: Hurst/Columbia University Press, 2009), pp. 267-280.
[55] "23. We believe that the rejectionists Shi'a (…) are a group of unbelievers and apostates, and that they consist of the most evil beings under the celestial dome." Quote from "al-Qaeda's Creed and Path", appendix to Bernard Haykel, "On the nature of Salafi Thought and Action", in *Global Salafism: Islam's New Religious Movement*, ed. Roel Meijer (London and New York: Hurst/Columbia University Press, 2009),, p. 51.

same time as they take part in regular insurgencies and, at times, even attempts state-building.[56]

Still, the particular emphasis on operating globally, both in terms of recruitment and targeting, distinguishes this form of jihadism from other more locally anchored forms.[57]
This narrow understanding of the term "global jihadism" will be used to guide the selection of literature to be included in the review. "Global" informs us of their preference for and willingness to attack Western civilians using terrorist tactics, as well as the ability to recruit in numerous and disparate societies. "Jihadi", in combination with "global", reveals that they adhere to a Salafi doctrine in which jihad trumps all other manifestations of true faith, and where jihad functions as the principal means to cleanse Islam of impurities and restore it to its former glory. In the literature that examines the followers of this creed or "religious ideology"[58], another contested term often function to describe the process argued to precede the act of violence. The process is known as "radicalization".

Radicalization

Large parts of the scholarly work examining the factors and mechanisms that may turn individuals into terrorists employ the concept of radicalization to describe this process. The increasing and arbitrary use of the term in the wake of 9/11 has led some to claim that its

[56] Foreign fighters are often regarded as terrorists, even those that engage in activities that fall outside of what is normally regarded as terrorism. The global jihadi terrorist may be thought of as the domestic version of the jihadi foreign fighter. Rather than travelling to a conflict zone to (mainly) participate in various forms of warfare, the domestic fighter conducts operations in otherwise peaceful societies. This qualifies the domestic fighter for the label of "terrorist" in most mainstream definitions of terrorism. Needless to say, this delineation is complicated and fluid. Terrorists can be, and often are, returned foreign fighters, but far from all foreign fighters are terrorists. On this conflation, see for example Thomas Hegghammer, "Should I Stay or Should I Go? Explaining Variation in Western Jihadists' Choice between Domestic and Foreign Fighting", *American Political Science Review* ", 1 (2013), pp. 1-15.
[57] See Mark Sedgwick, "Jihadism, Narrow and Wide: The Dangers of Loose Use of an Important Term", *Perspectives on Terrorism*, 2 (April, 2015), p. 38-39.
[58] See Assaf Moghadam, "The Salafi-Jihad as a Religious Ideology", *The CTC Sentinel, 3 (2008).* Combating Terrorism Center, https://www.ctc.usma.edu/posts/the-salafi-jihad-as-a-religious-ideology.

utility is very limited, some even advocating a removal of the term altogether.[59] According to Peter Neumann,

> Like terrorism, the term 'radicalization' is considered political, and its frequent use—especially by governments and officials—is believed to serve political agendas rather than describe a social phenomenon that can be studied and dealt with in a dispassionate and objective manner.[60]

Opposition to the use of the concept is common. Jonathan Githens-Mazer argues that the term has come to be used as a pejorative label attached to radical Islam by the media, politicians and policy makers, indicating a relationship with violence, and linking politicized Muslims with the anti-Western stance of jihadi terrorists.[61]

Some scholars use the term to describe the adoption of radical ideas, some the entire process from the adoption of radical viewpoints to the act of violence, whereas others argue that the term has two distinct meanings.[62] This conceptual "fault-line" is arguably the most important obstacle to an agreed-upon understanding of what the radicalization process entails.[63] The distinction between radical ideas and radical behavior is important. Far more people adopt extreme ideas than exhibit violent behavior. Scholars point to possible explanatory factors at all proposed stages, from pre-radicalization to the adoption of violence.

Some scholars argue that researchers would be better off focusing on understanding the behavioral aspect, the actual terrorism; others argue that such a focus would remove the social and contextual aspects of political violence, and thereby depoliticize the radicalization process.[64] The degree to which extreme beliefs must be a harbinger of violence is disputed. It is obvious that not all who adopts extreme ideas turn to violence. Still, critical voices argue

---

[59] For extensive discussions of the term and it use, see Mark Sedgwick, "The Concept of Radicalization as a Source of Confusion", *Terrorism and Political Violence,* 4 (2010), pp. 479-494, and Peter Neumann, "The trouble with radicalization", *International Affairs,* 4 (2013), pp. 873-893.
[60] Neumann 2013:878.
[61] Jonathan Githens-Mazer, "The rhetoric and reality: radicalization and political discourse", *International Political Science Review,* 5 (2012), pp. 556-567.
[62] Marc Sageman, "The Turn to Political Violence in the West", in *Jihadi Terrorism and the Radicalization Challenge: European and American Experiences,* ed. Rik Coolsaet (Farnham: Ashgate Publishing Company, 2011), p. 117.
[63] Neumann 2013:873-874.
[64] Neumann 2013:878-885.

that too much attention is awarded to the non-violent aspects of the radicalization process, instead of focusing on the violent manifestations. [65] Whereas some explanatory models incorporate the two, many stop short of trying to explain what causes the leap from cognitive to behavioral extremism, but none propose that the adoption of radical beliefs, on its own, is sufficient to explain violent radicalization. To what degree, and in what manner, belief systems and actions are connected is one of the core issues in the debate. Consequently, the factors that shape or affect the former are also disputed.

The proposed causes presented in the radicalization debate are scattered all along the spectrum from the individual to societal levels of explanations. The proposed causes may affect the process on several levels of explanation simultaneously. At the same time as poverty may correlate with the occurrence of terrorism at a societal level of explanation, poverty at the individual level may also be hypothesized to make the individual particularly receptive to an extremist narrative. Still, the radicalization literature is characterized by a particular focus on the dynamic interaction between the individual, the group and the context in which they operate. Whether or not the term is analytically useful, and despite the lack of scholarly consensus on the definition, it is widely used throughout the debate.

Whereas the concept of global jihadi terrorism describes the outcome, the term radicalization is a somewhat woolly concept that purports to position and explain possible causes within a process that may account for this outcome. Despite the conceptual shortcomings, they both form a vital part of the research that attempts to explain the phenomenon under study.

1.3.2 The analytical framework: Sorting and assessing the scholarship

The framework

The review scholarship is organized into two analytical sections, encompassing what within the literature is often referred to as the individual- and socio-psychological/group-level of analysis or explanation.[66] The *level of analysis* indicates the level "at which explanations are

[65] Neumann 2013:878-879.
[66] See for example Bradley McAllister and Alex P. Schmid, "Theories of Terrorism", in Alex P. Schmid (ed.), *The Routledge Handbook of Terrorism Research* (Abingdon: Routledge, 2011), pp. 213-214.

postulated to work".[67] This is not to be confused with the *unit of analysis*, which indicates the empirical item(s) under study.[68] The sections consist of theories, models and hypotheses, as well as relevant examples of high quality empirical research. Pertinent methodological or empirical issues, concerns, strengths and weaknesses will be addressed as they are encountered.

The analytical sections function to sort the main arguments found within the debate. The sub-categories within the sections are thematically sorted to provide a more fine-grained picture of the most recurring and convincing causal explanations, factors or variables. The analytical boundaries are devised to provide a level of orderliness to the material at hand - broad and abstract structures that serve to offer a panoramic view of the debate. At the same time, each thematic category contains a variety of diverging claims and perspectives.

The first analytical section presents the research that highlights the psychological characteristics of the terrorist, where the search for a terrorist personality or mental abnormality is the principal components. To what degree is the terrorist's psychological make-up different from the non-terrorist, and if so: how can we know? Sub-sections on the mental state of would-be suicide attackers is arguably partly outside of the criterial parameters guiding the selection of literature, but at the same time regarded as highly illuminating in regards to important aspects of the theme in general.

The second and most voluminous section deals with the research that examines why the individual actor engages in terrorist activities, and how social or group factors may affect this process. The reviewed literature is divided into two thematic sections, each containing a broad cohort of related arguments. The sections present the relevant parts of explanatory models, and contrast these with the available evidence from more granular or empirically geared studies. A large part of the research at this level of explanation is made up of the literature on radicalization, to a large part consisting of qualitative work.[69]

[67] Donatella della Porta and Michael Keating (eds.), *Approaches and Methodologies in the Social Sciences* (Cambridge: Cambridge University Press, 2008), p. 2.
[68] della Porta and Keating 2008:2-3. In case study research, whereas some might argue that the case is the item under study, the research included in this review in most instances investigate how the actions of the individual actor is affected or guided by various forces, conditions, and circumstances.
[69] Peter Neumann and Scott Kleinmann, "How Rigorous Is Radicalization Research?", *Democracy and Security*, 4 (2013), p. 361.

Spell it out: Assessing quality or rigor

There is no universally accepted, ready-made, one-size-fits-all checklist of rigor that can be applied across all research traditions. Depending on the researcher, faculty or scholarly department you consult, the views on what constitutes rigor may vary or even be conflicting.[70] As one of the main goals of this review is to assess the quality or rigor of the included research, some general standards (judged to be palatable across the board) are applied to serve as a common point of departure for the assessment. The assessment is based on principles that are generally accepted as valid signs of scientific rigor by most disciplines represented in the debate.[71]

Within the disciplines represented in the debate there are explicit or implicit quality indicators or hallmarks of rigor that serve to show that the findings are as trustworthy as the evidence and methodology allow for. It is the researcher's duty to display these characteristics and thereby demonstrate the rigor of their work. These hallmarks rest on the notion of transparency as a "meta standard" of quality research.[72] Scholarship that aspires to explain – which is certainly the case in this review - must therefore be transparent for it to be considered rigorous. Only then can we assess whether researchers adhere to the standards of their "native" community. As Colin Elman and Diana Kapiszewski notes,

> All rule-based social inquiry is based on three notions. First, scholarly communities hold shared and stable beliefs that research designed and conducted in particular ways - according to particular rules - is warranted to produce knowledge with certain

[70] At the very core of this question, the various research traditions harbor philosophical assumptions that create insurmountable disagreements. The ontological (the nature of reality) and epistemological (the limit or extent of our knowledge) positions will inevitably affect one's view on what constitutes "quality" or "rigor". At the margins of such a debate, a positivist may advocate that qualitative research should emulate the quantitative criteria of rigor to be able to measure reality as it is. This will be severely at odds with researchers that see reality as a social construction that cannot be objectively studied, and subsequently judge reality to be relative to one's perspective. See Egon G. Guba and Yvonna S. Lincoln, "Competing paradigms in qualitative research", in *Handbook of qualitative research,* eds. N.K. Denzin and Yvonna S. Lincoln (Thousand Oaks: Sage, 1994), pp. 105-117.

[71] Criteria of rigor are a point of departure, not a point-by-point checklist. When assessing the strengths and weaknesses of the presented literature, the research design chosen by the author may induce issues that are of particular importance for that specific methodology. All methodologies have inherent strengths, limitations and trade-offs that may affect the validity and reliability of the research. Of particular importance to this review, the extent to which one can offer valid causal claims is highly dependent on the chosen research design and the nature and quality of the data used to support the claims.

[72] Colin Elman and Diana Kapiszewski, "Data Access and Research Transparency in the Qualitative Tradition", *PS: Political Science and Politics,* 1 (January, 2014), p. 43.

> characteristics. Second, both the conduct of social inquiry and the written products that represent its conclusions are designed to capture those characteristics. Finally, to possess those characteristics, research must be designed and conducted in accordance with those rules.[73]

This does not imply forcing the specific standards of a particular methodology upon various others. The assessment's point of departure is an evaluation of the transparency and adherence to the most general principles of rigor, so that the research can be judged according to the particular "rules" relevant for the specific tradition.

Research processes are fraught with difficulties, where some shortcomings will be more severe than others. In general, all research should be characterized by precise and rigorous citation practices and grant full access to the source material or data, so that the evidence brought to bear can be scrutinized. [74] This will reveal whether the researcher relies on primary or secondary source material, if the data stem from sources that should be approached with care, and to what degree the evidence supports the claims.[75] Full disclosure also allows for an informed judgement of whether the research is a fair and accurate representation or measurement of the sources or data - sometimes referred to as the credibility or *internal validity* of the case or cases under study.

Another important part of this transparency is a presentation of the rationale for the selection of data or cases and a reflection on possible bias and error present in the material or in the sampling procedure itself. Moreover, transparency as to how the sampling was conducted, and what sort of explanation the researcher is aiming for, reveals to what degree the research findings or conclusions may apply to other similar cases not under study. This informs us of the *external validity*[76] of the inferences drawn from the material – whether one can generalize the findings to other similar instances.[77]

---

[73] Elman and Kapiszewski 2014:43.

[74] Some have even suggested that footnotes and endnotes offer false transparency, due to the high transaction costs of actually verifying the sources and claims. This could be remedied by using active links from citation to the source or data, further increasing the transparency of qualitative research of all strands. See Andrew Moravcsik, "Transparency: The Revolution in Qualitative Research", *PS: Political Science and Politics*, 1 (January, 2014), pp 48-53.

[75] An over-reliance on secondary sources may be judged to weaken the *empirical rigor* of a study. See for example Peter Neumann and Scott Kleinmann, "How Rigorous is Radicalization Research?", *Democracy and Security*, 4 (2013), p. 367, 376-378.

[76] An increase of either internal or external validity often results in the decrease of the other. They are "generally considered to be in tension, as research usually gains internal validity the deeper it is into a single case and

Analytical frankness will display important analytical decisions, explanations and justifications for the use of particular theories or frameworks, and reveal any implicit theoretical assumptions. Full disclosure allows the reader to follow the researcher's route of reasoning. Perhaps most importantly, this will also allow the informed and critical reader to judge whether important factors or pieces of information have been left out.[78]

Furthermore, the proposed explanations or claims are not only grounded in the data and the subsequent analysis, but also hinge on the leverage offered by the particular procedure used to generate this knowledge. Adherence to methodological principles can only be shown through a lucid presentation of the analytical process. In combination with the inherent limitations of the chosen method, one is closer to a precise metering of the explanatory power of the research. Such showcasing of rigor signals *validity* and *reliability.*[79]

Transparency is vital to the assessment of whether the generated findings are based on the rules and principles of the applied methodology – thereby resulting in knowledge that can be trusted. Only then can we assess whether their arguments of cause and effect have merit.

Cause and Effect: Various notions of causation

While the numerous research traditions share many tools and methods for generating data, they part ways in the question on how (and if) this information can generate valid causal explanations. The debate includes disagreements on what causal relationships are, how they function, how they are best measured, explained or described, and to what degree the

---

external validity the broader it gets". Kendra Koivu and Erin Kimball. "The Gap within: Differences between Approaches in Qualitative Methods" *APSA 2010 Annual Meeting Paper* (2010), p. 30, footnote 21.

[77] Gerring 2007:43-50, 217. The terms "validity" and "reliability" are mainly used within disciplines that have adopted the terminology and, at least to some extent, the causal logic of quantitative approaches. Within other disciplines represented in the debate, particularly those of a qualitative nature, there is often a parallel terminology covering the same issues. Examples of alternative and overlapping terms include "quality", "rigor", "trustworthiness", "reproducibility", "transferability", "audit trail", "replicability", "confirmability", "dependability", "triangulation" and more. See for example Nahid Golafshani, "Understanding Reliability and Validity in Qualitative Research", *The Qualitative Report,* 4 (December, 2003), pp. 597-607.

[78] George and Bennett posit that the assessment of a case study demands that the critic, to be able to critically evaluate the validity of the research, is familiar with the subject and its theories and assumptions. George and Bennett 2005:105-107.

[79] A high degree of reliability will most often result in increased *replicability,* as the transparency offers an opportunity to "copy" the research process. Ideally, and all else equal, the assessor should draw the same conclusion as the original researcher, if the analytical procedure is replicated.
Still, some forms of qualitative inquiry are not well fit for replication. Highly interpretative work or unstructured interviews, for example, may be to idiosyncratic and context-sensitive to be replicated.

hypothesized explanations may be valid outside of the particular case(s) under study. The dispute is at times, perhaps simplistically, portrayed as a dichotomous clash of two separate scholarly domains, often illustrated as quantitative versus qualitative, hard versus soft, or positivist versus interpretivist. It is perhaps better understood as a continuum of approaches anchored in many different disciplines, with considerable overlap and mixing. In simplified, broad strokes, it is worth mentioning some aspects that inform the appraisal and understanding of the disparate arguments presented in the debate.[80]

At the most general level, the disagreements rest on the ancient questions of ontology and epistemology.[81] In fear of getting tangled up in a discussion that would pry away the main bulk of the review, it is probably fair to state that one's position on these issues has an obvious impact on one's understanding of cause[82] and effect. In practical terms, the plurality of positions results in "causal pluralism" – different methodological approaches harbor different concepts of causations that are irreconcilable.[83] To illustrate the most common forms of methodological approaches and notions of causation found within the qualitative domain, Erin Kimball and Kendra L. Koivu argue that there are four broad "camps", built on differing philosophical and logical foundations.[84]

"Quantitative Emulators"

The first suggested "camp" is the hard positivist wing, which includes those who wish to emulate the methodology of the quantitative tradition, viewing causes as (independent) variables or factors with a measurable effect on the outcome (the dependent variable). The "quantitative emulator" works towards measuring the *effect of causes,* ideally across a large

[80] The debate on causation is ancient, complex, theoretical, at times technical, and very extensive. This brief description serves as an introduction of the various forms of causal arguments found in the debate. Particular methodological issues pertaining to the various approaches and their practical implications will be addressed as they are encountered in the research under review.
[81] In the words of Donatella della Porta and Michael Keating, and grossly simplified, "what we can know", and "how we can know". See della Porta and Keating 2008: 22-25.
[82] Causes, depending on the distance from the outcome they are thought to explain, are often categorized as either distal (root or structural) or proximate. Proximate causes are closer to the effect they may explain, often portrayed as *causal mechanisms* that serve to explain the effect of the more distal root or structural causes. See for example John Gerring, *Case study research: principles and practices* (Cambridge: Cambridge University Press, 2006), p. 212.
[83] See Julian Reiss, "Causation in the social sciences: Evidence, inference, and purpose", *Philosophy of the Social Sciences* (2009), pp. 1-21.
[84] As the authors note, these categories are ideal types that portray the main characteristics of each approach. Kimball and Koivu 2011:2-3, and footnote 6, p. 4.

number of cases or observations.[85] The presence of a cause, an explanatory variable, increases the probability of a certain outcome.[86] This may be called the *probabilistic* logic or view of causation. The most audacious and predictive generalizations are often built on inquiry of this kind, as their methodology, when properly executed, is theorized to support such claims.[87] The aim is to approximate the natural sciences.[88] John Gerring has suggested that the probabilistic logic underpins all scientific social inquiry, whether quantitative or qualitative:

> The core, or minimal, definition of causation held implicitly within the social sciences is that a cause raises the probability of an event occurring.[89]

Such an approach does not acknowledge the underpinnings of other approaches that are in conflict with the probabilistic logic derived from statistical theory.

The "within-case" or mechanistic approach

Moving from hard to softer on the causal argument-continuum, Kimball and Koivu identify a "second camp [they] call eclectic small-N comparativism." or a "within-case" approach.[90] In contrast to the quantitative emulators, those that fall within this category generally harbor "a serious skepticism regarding generalizability."[91] This approach is oriented towards *elucidating* processes, thinking of cause and effect as best explained through various causal mechanisms. This *mechanistic* view on causation results in a primary focus on tracing changes over time, and revealing the mechanisms that fuel this change. As will be evident in

[85] Kimball and Koivu 2011:9.
[86] A probabilistic causal argument is generally more sophisticated than pointing to mere correlation. It often includes intervening variables and elaborate schemes to rule out the effect of (control for) other relevant and plausible explanations.
[87] Alan Krueger's work on the link between poverty and terrorism is an example of such an approach. See example Alan Krueger, *What Makes A Terrorist: Economics and the Roots of Terrorism* (Princeton: Princeton University Press, 2007).
[88] della Porta and Keating 2008:3-4.
[89] John Gerring, "Causation: A Unified Framework for the Social Sciences", *Journal of Theoretical Politics*, 2 (2005), p. 167.
[90] Kimball and Koivu 2011:10, 18. Here, "eclectic" indicates that this group accommodates an array of both disciplines and methods, though generally exhibiting the same understanding of causation. "Small-N" refers to the fact that this group is primarily occupied with examining one or a few cases.
[91] Kimball and Koivu 2011:10.

the review, this approach is particularly useful for, and widely applied in, the scholarship that examines causes of terrorism at the individual and group level of explanations.[92]

Sowing some confusion as to how these mechanisms are thought to function, John Gerring finds that researchers use the mechanisms for both probabilistic and deterministic arguments: Some argue that a causal mechanism will increase the probability of an outcome; others view a causal mechanism as "sufficient to produce the outcome of interest."[93]

To be able to produce the mechanistic micro-level explanations and prove the linkages from cause to effect, researchers often employ the process-tracing method and conduct small-N comparative studies. As Kimball and Koivu note, this stands in contrast to the "quantitative emulators" that rely on "the number of observations to build causal inference"[94], i.e. statistical measurement of the effect of causes.

The process-tracing method operates at the micro-level, is not always wedded to the mechanistic form of explanation, and often transgresses academic boundaries. As an example, it is in practical terms very similar to what in the humanities is labelled "historical explanation",[95] perhaps even historical accounts that from a positivist's point of view are no more than mere narratives. Whereas the method is often used in the social sciences to generate causal mechanism-explanations hypothesized to apply to a carefully delimited scope of cases, in the words of historian Marc Trachtenberg,

> [t]he historian, however, in reaching for such a structure, has to take care not to push the effort too far. In historical processes, contingent factors loom large; the logic of historical change is never as tight as the logic of a mathematical theorem.[96]

Similar to procedures employed in disciplines often regarded as more scientific or formal in nature, historical explanations also offer process-oriented, detailed and systematic micro-level explanations that link cause and outcome – without necessarily labelling these as causal mechanisms.[97] This serves to show that rigorous empirical studies - even when not cloaked in

[92] Petter Nesser's work is a prime example of such application. See for example Nesser 2011b.
[93] John Gerring, "The mechanismic worldview: Thinking inside the box", *British journal of political science*, 1 (2008), p. 170.
[94] Kimball and Koivu 2011:18
[95] George and Bennett 2005: 224-230.
[96] Marc Trachtenberg, *The craft of international history: A guide to method* (Princeton: Princeton University Press, 2009), p. 28.
[97] Here it must be noted that historians are not a monolithic entity. As in all other disciplines, there are numerous "schools" with different approaches to explanation.

causal terminology or explicitly claiming any external explanatory power - can describe processes in a way that is congruent to the standards or structures of the various forms of causal arguments.[98] This also illustrates the eclectic mix of disciplines represented within this approach, where pragmatic concerns trump adherence to particular methods or forms of causal arguments.

The "set-theoretic" approach – necessary and/or sufficient causes

The third "tribe" portrayed in Kimball and Koivu's typology is the "set-theoretic or Boolean approach".[99] In contrast to the abovementioned approaches, their notion of causation is *deterministic*. In simple terms, they speak of causes as necessary, sufficient, or necessary-and-sufficient where a sufficient cause or various *combinations* of causes will lead to a specified outcome. This allows for several possible paths leading to the same outcome, referred to as *equifinality* in the methodological literature .[100] This acceptance of severe causal complexity stands in contrast to probabilistic and mechanistic approaches, which aim to measure or specify more linear and sequential causal paths that operate in a somewhat uniform manner in a few or across many cases. Set-theorists acknowledge that the complete explanation of the case(s) requires a degree of interpretation, as cases may be explained by unique sets of circumstances within each context.

To unearth the possible causal constellations, they compare several cases and analyze similarities and differences. This will potentially reveal the effect of "*configurations of causes* – that is, the effects of the contemporaneous presence/absence of a combination of factors"[101], instead of the measured average effect of the presence or absence of single causes or variables. This approach is primarily occupied with explaining the cases under study by close

[98] John Gerring offers the following definition of causal and descriptive arguments: "A causal argument is an argument about a (putatively) causal relationship; it may or may not be grounded in quasi-experimental evidence. Likewise, a descriptive argument is an argument about a descriptive relationship, which may or may not have causal implications." John Gerring, "Mere description", *British Journal of Political Science,* 4 (2012), p. 724.
[99] Kimball and Koivu 2011:10.
[100] George and Bennett 162-163.
[101] della Porta and Keating 2008:212.

comparison of cases, with a possibility of generalizing to cases that fit within narrow and contingent scope conditions.[102]

As with the other approaches, the use of counterfactuals is important. Although they may not negate the explanation, counterfactual examples of a specified outcome without the presence of a necessary causal condition will severely hamper the merit of the proposed necessary component of the causal relationship in question. Causes proposed to be sufficient, on the other hand, will withstand such a counterfactual. Examples of the same outcome, but lacking a proposed sufficient cause do not necessarily weaken the explanation, as there may be several *different sufficient* causes that may lead to the same outcome or effect. To disconfirm a claim of sufficiency, one needs a counterfactual example with the presence of the sufficient cause, without leading to the specified outcome of interest.

Interpretative approaches

The final approach in the typology suggested by Kimball and Koivu is labeled "empirical interpretivism", indicative of the empirically focused, inductive and interpretative forms of inquiry found within this approach to causation.[103] The proponents of this approach do not argue for a wholesale rejection of causation in general, but oppose the causal argumentation that builds on the principles of the positivist tradition. Drawing on the constructivist understanding of the world, they argue that "reality is constructed through the interactions of individuals and the mutually constitutive relationship between agency and structures"[104], rather than being an objective entity that is ripe for measurement or gathering of facts.

Despite the distinct rejection of the positivist ontology, the empirical interpretivists engage in small-N research using many of the same "tools" as other qualitative scholars, to generate knowledge "through understanding and interpretation of the world around us."[105] The means may be similar, but the standards for how they should be applied and for which ends is quite

[102] Kimball and Koivu 2011:21-23.
[103] Kimball and Koivu 2011:11.
[104] Kimball and Koivu 2011:11.
[105] Kimball and Koivu 2011:11.

different. Their notion of causation is wedded to the quest for understanding cause and effect within the specific cases, not as general laws to be applied outside of these.[106]

Rather than rejecting causation, they "broaden the conceptualization of causality beyond the variables-based, explanation-prediction, general law model"[107], to also include "[h]uman meaning making and beliefs […] as 'constitutive of actions'."[108] By providing "thick" and case-specific descriptions and interpretations of the reasons and motives of actions, this approach allows for a greater emphasis on intangible causal forces, such as ideas and beliefs. As a result, the knowledge obtained from this form of inquiry is highly context-specific and contingent. This approach is highly relevant when attempting to explain global jihadi terrorism, where ideology, propaganda and unobservable group processes are hypothesized to be important causes of violent behavior.[109]

To summarize, the plural notions of what causation entails showcase that the tensions which originate from philosophical stances manifest themselves in tangibly different attempts at explaining or understanding cause and effect. In practical terms, a method or research design may be applied according to standards that are holy within a particular approach, but sacrilegious for the adherent of another "school of causation" – with both perspectives being fully in tune with the aims, procedure and causal logic of their particular approach.[110]

This forms the plural and conflicting - but potentially illuminating - methodological backdrop to the complex landscape of scholarship on the causes of global jihadi terrorism. In the context of this review, it is argued that the rich selection of approaches and perspectives is a boon to the attempts at answering the questions found within the debate. As Julian Reiss argues:

[106] Kimball and Koivu 2011:24.
[107] Kimball and Koivu 2011:24. Paraphrased from Peregrine Schwartz-Shea, "Judging quality: evaluative criteria and epistemic communities", in *Interpretation and Method: Empirical Research Methods and the Interpretive Turn*, eds. D. Yanow and P. Schwartz-Shea (M.E. Sharpe:Armonk, 2006), pp. 108-109.
[108] According to Mark Bevir, as quoted in Kimball and Koivu 2011:24.
[109] For examples of this form of inquiry, see for example the works of Quintan Wiktorowicz included in the review.
[110] The procedure of selecting cases is a prime example. Whereas the "quantitative emulator" follows careful selection procedures to prevent various forms of bias, the interpretivist may not see this as an issue at all, being more concerned with addressing the inherent bias in the researcher's subjective understanding of the cases.

"[C]onfirmation from a number of independent methods is one and perhaps the only way to be reasonably confident about the truth of the hypothesis. The idea, then, is pretty much like the idea of 'triangulation' in other parts of science."[111]

[111] Reiss 2009:8.

2 Individual psychological explanations

The psychological explanations within terrorism research most often focus on two levels of analysis: The individual and the various forms of socio-psychological group processes.[112] At the individual level, a primary focus has been the search for a psychological "terrorist profile", a quest that has occupied researchers for decades.[113] This strain of terrorism research has had somewhat of a resurgence in the wake of 9/11[114], continuing the effort to establish what researchers have aimed at for decades - uncovering mental illness or personality "defects" that explain why an individual engages in terrorist activities.

Unfortunately, there are several impediments that torment researchers looking to establish if the terrorist's psychological profile differs from the normal. Within this body of research, there is also diversity as to what form or degree of abnormality that is hypothesized to explain the radicalization and/or engagement in terrorist activities. Some studies investigate whether terrorists suffer from various forms of *mental disorders*; others look into whether certain a person's psychological *traits* or *inclinations* may be a better explanation or predictor of violent extremism.[115] Both perspectives share the difficult task of mustering valid empirical evidence in support of hypothesized psychological explanations.

The field of psychology, as most other disciplines, is not unitary. Different approaches co-exist, with considerable differences on how to explain mental illness or maladaptation.[116] Simplified, the width of perspectives is somewhat analogous to the positivist- interpretivist continuum across and within the other disciplines represented in the terrorism debate. The field ranges from psychodynamic or psychoanalytical approaches in the Freudian tradition[117],

[112] See for example John Horgan, *The Psychology of Terrorism* (Abingdon: Routledge, 2005), pp. 32-34; Jeff Victoroff, "The Mind of the Terrorist: A Review and Critique of Psychological Approaches", *The Journal of Conflict Resolution*, 1 (2005), p. 17.
[113] See for example Horgan 2005:53-62; Victoroff 2005:12-14; Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania Press, 2004), pp. 80-91; Clark McCauley, "Psychological Issues in Understanding Terrorism and the Response to Terrorism", in *Psychology of Terrorism,* ed. Bruce Bongar et al. (Oxford: Oxford University Press, 2007), pp. 14-15; Charles L. Ruby, "Are Terrorists Mentally Deranged?", *Analysis of Social Issues and Public Policy* (2002), pp. 16-18.
[114] Horgan 2005:48.
[115] According to Randy Borum, current research on psychopathology is converging on the idea of mental illness or "adaptation or maladaptation" as a continuum, rather than a "categorical distinction between what is normal and what is disordered." See Randy Borum, "Psychological Vulnerabilities and Propensities for Involvement in Violent Extremism", *Behavioral Sciences and the Law,* vol. 32(2014), p. 286.
[116] For an introduction to the various perspectives, see S. A. McLeod, "Psychology Perspectives" (2007), www.simplypsychology.org. Retrieved from www.simplypsychology.org/perspective.html.
[117] Research based on the Freudian or psychodynamic approach is not included in the review due to its inherently un-scientific basis and procedures. This perspective is based on the notion that the roots and explanation of personality traits, mental illness or maladaptation are found in various experiences and traumas experienced

towards approaches that are empirically focused and more in tune with systematic and rule-bound methodological procedures of other disciplines in the social sciences.[118] The contributions included in this section originate from perspectives that offer propositions which can be empirically tested or verified, provided that relevant data or sources are available.

2.1 The mind of the terrorist: Ill, deviant or normal?

Mohammed Atta, the leader of the 9/11 conspirators, grew up in a religiously moderate family in suburban Cairo. His upbringing was sheltered[119], and he traveled extensively. His middle class parents were affluent enough to provide him with the opportunity to go to university in Europe. Sometime during his education, he decided to become a Mujahedin. He travelled to Afghanistan, as many Arabs had done before him. While in Afghanistan, Atta's transformation from a somewhat unremarkable, middle class, Egyptian citizen, to global jihadi terrorist was completed. The young operative, initially destined to join the jihad in Chechnya, was now ready to mount an unprecedented attack on the symbols of modern, Western civilization. In the early morning of September 11, 2001, Atta and the eighteen other attackers of various nationalities and backgrounds killed nearly three thousand men, women and children. What sane person will purposely kill scores of civilians unknown to him, and willfully embrace his own death in the act?

Psychologists explain the propensity to view terrorists as mad as an example of attribution error. This bias is thought to lead us to judge our own actions as an effect of the context in which it happened, whereas the actions of others are attributed to their personality.[120] This natural inclination to view terrorists as abnormal may explain the eagerness to establish that participants in terrorist activities suffer from some variant of clinical psychopathological illness, or at least fall outside of what is considered normal. This intuitive approach was

during childhood. It is very problematic to assess the veracity of such claims and the assumptions it is based on, as they are impossible to retrospectively prove or disprove.

[118] For a brief history and discussion on this tension in terrorism research, see Horgan 2005:53-62.

[119] Sageman 2004:86.

[120] See Andrew Silke, "Holy Warriors: Exploring the Psychological Processes of Jihadi Radicalization", *European Journal of Criminology,* 1 (2008), p. 104, and Horgan 2005:47-48.

reinvigorated in the wake of 9/11, despite the fact that research in the decades prior had failed to uncover patterns of psychopathology among the terrorists examined.[121]

Since then, numerous scholars have concluded that no correlation between psychopathology and terrorism have been found, despite decades of research aiming to prove such a link.[122] On the contrary, most scholars agree that terrorists are disturbingly normal.[123] Taking stock of the available evidence shortly after the 9/11 attacks, C.L. Ruby concluded there were no known empirically based studies that had succeeded in finding a link between psychopathological personality traits and terrorist activity.[124] Earlier research on these issues regarded clinical diagnoses such as psychopathy, narcissism, and paranoia as possible explanations of terrorist behavior. The most comprehensive and ambitious attempt at examining the psychological characteristics of the terrorists was sanctioned by the West German authorities in the aftermath of the wave of left-wing terrorism that swept the country in the 1970s and 1980s. Researchers reported that a number of pathological traits were common among the incarcerated militants; these claims are disputed among scholars on the grounds of poorly executed and biased procedures that resulted in unreliable and contradictive findings.[125]

Despite the lack of sufficient data or rigorous examination of relevant groups, the speculations concerning the mental health of terrorists have not completely subsided. Commenting on the continued attempts at breathing life into the psychopathology theory, writing in 1998, Andrew Silke found that there were still some researchers "dancing around the psychopathology issue."[126] Researchers still ascribed abnormal psychological traits to terrorists, though not going as far as saying that they could be clinically diagnosed in accordance with standardized

[121] Andrew Silke, "Becoming a Terrorist", in *Terrorists, Victims and Society: Psychological Perspectives on Terrorism and its Consequences*, ed. Andrew Silke (West Sussex: Wiley & Sons, 2003), p. 30.
[122] Ruby 2002:15-26; Victoroff 2005:3-42; Sageman 2004:80-91; Horgan 2005; Arie W. Kruglanski and Shira Fishman, "Psychological Factors in Terrorism and Counterterrorism: Individual, Group, and Organizational Levels of Analysis", *Social Issues and Policy Review*, 1 (2009), p. 7; Andrew Silke, "Cheshire-cat logic: The recurring theme of terrorist abnormality in psychological research", *Psychology, Crime & Law*, 4 (1998), 51-69; Clark McCauley, "Psychological Issues in Understanding Terrorism and the Response to Terrorism", in *Psychology of Terrorism*, ed. Bruce Bongar et al. (Oxford: Oxford University Press, 2007). For a more recent review offering the same conclusion, see Samuel J. Leistedt, "Behavioural aspects of terrorism", *Forensic Science International*, 228 (2013), pp. 21-27.
[123] Even though Michael King and Donald M. Taylor agrees that there is a lack of evidence to support the notion of a terrorist personality, they warn that "[w]hereas previously researchers were biased towards personality characteristics to explain terrorism, the current emphasis on 'normalcy' may have resulted in a new bias. That is, current theorizing emphasizes situational factors as the primary—and in some cases the exclusive—drivers of radicalization." See Michael King & Donald M. Taylor, "The Radicalization of Homegrown Jihadists: A Review of Theoretical Models and Social Psychological Evidence", *Terrorism and Political Violence*, 4 (2011), p. 614.
[124] Ruby 2002:24.
[125] Horgan 2005:54-55.
[126] Silke 1998:65.

tests for mental illness. Such claims are obviously near-impossible to challenge or refute, as they lay between what can be measured as a clinical diagnosis and what is considered as normal. Jerrold M. Post, one of the proponents of this "mild" pathology thesis, readily admitted that there was no evidence to support this view. According to Silke, the tendency to hold on to these beliefs has tainted "terrorism with a pathology aura". [127] Along the same line, John Horgan also finds that the inability to produce evidence of psychopathology have led to speculation of abnormality among terrorists rather than testable causal arguments.[128]

Adding to this, Ruby argues that even if an empirical study revealed a correlation between some form of causative psychopathological traits and terrorism, the researcher would still be faced with the challenge of proving that the psychopathology is the *cause* and not the *effect* of terrorism (or incarceration[129]). As he points out, the experience of the clandestine, violent and dangerous terrorist lifestyle has the potential to trigger mental illnesses such as paranoia.[130]

2.2 Lack of evidence or evidence of absence?

Among the issues that plague researchers, the lack of data or access to convicted terrorists stands out. This deficiency is the main impediment for research on psychopathology as a cause of terrorism, and arguably to terrorism research in general. For a psychologist wanting to assess the mental make-up of the terrorist, speaking to family and friends is not always adequate.[131] Access to incarcerated terrorists or classified information is obtained at the mercy of security services. If access is granted, one obviously has to question the rationale behind such access. If active terrorists willing to be interviewed are found, there are obvious issues of both personal safety and ethical considerations.[132] The result of these difficulties is a severe lack of primary sources and empirically driven studies on psychopathology as a factor, resulting in uncertainty over what we actually know about the issue. According to Ariel

[127] Andrew Silke, "Cheshire-cat logic: The recurring theme of terrorist abnormality in psychological research", *Psychology, Crime & Law*, 4 (1998), pp. 64-67.
[128] Horgan 2005:65-69.
[129] As an example, Edwin Bakker reported that, in his sample, four out of the eleven jihadists that suffered from some form of mental illness, had become ill *after* their arrest. See Edwin Bakker, *Jihadi terrorists in Europe, their characteristics and the circumstances in which they joined the jihad: An exploratory study* (The Hague: Clingendael Institute, 2006), p. 40.
[130] Ruby 2002:22.
[131] Horgan 2005:34-35.
[132] Victoroff 2005:31-33; King and Taylor 2011:618.

Merari, the lack of knowledge makes it more precise to argue "that 'no terrorist profile has been found', rather than 'there is no terrorist profile.'"[133] As in society in general, terrorist groups will have their share of people suffering from psychological disorders.[134] But, as Andrew Silke argues,

> [q]uite simply, such people do not make good terrorists. They lack the discipline, rationality, self-control and mental stamina needed if terrorists are to survive for any length of time.[135]

Aside from anecdotal evidence portraying individual terrorists as suffering from mental illnesses, the few empirical studies of groups of terrorists show that they are mostly indistinguishable from non-terrorists. Writing in 2005, in an extensive review of psychological explanations, Jeff Victoroff stated that "[t]he field is largely characterized by theoretical speculation based on subjective interpretation of anecdotal observation."[136] Due to the chronic lack of reliable data it is not surprising that Victoroff's description, with a few exceptions, may also be applied to the more recent study of the terrorist's psychological profile.

In two studies of global jihadi terrorists, Marc Sageman and Edwin Bakker failed to find evidence of any psychopathological overrepresentation within their samples. Even though their studies suffer from the fact that their conclusions rest on various open sources rather than psychological examinations[137], their biographical accounts of a large number of jihadists revealed no evidence of psychological abnormality. Sageman is adamant in his opinion that "[t]he personality pathology thesis is not relevant to the global salafi jihad."[138] In his study of

[133] Quoted in John Horgan, "From Profiles to *Pathways* and Roots to *Routes*: Perspectives from Psychology on Radicalization into Terrorism", *The ANNALS of the American Academy of Political and Social Science,* 1 (July, 2008), p. 84.
[134] Even if disproportionate number of terrorists were found to suffer from various mental illnesses or characteristics, researchers would still be faced with the challenge of establishing that these served as a causal factor.
[135] Silke 2008:104.
[136] Victoroff 2005:1.
[137] See Victoroff 2005:10 and Silke 2008:101-102.
[138] Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania Press, 2004), p. 91.

European jihadists, operating with a framework similar to Sageman's, Bakker found that his sample did not support any claim of psychopathology as an explanatory factor.[139]

While their studies offer anecdotal clues to the validity of the pathology thesis' relevance in regards to jihadi terrorism, their sample and methodology are far from adequate grounds on which to base any definitive conclusions regarding the mental health or traits of those included in the studies. With regards to Sageman's study, Victoroff notes that

> "[a]lthough Sageman's conclusions seem highly plausible, the author is candid in admitting the limitations of this work: his sample is very small, atypical, and uncontrolled, and the author had no formal method for confirming these indirect psychiatric impressions."

In a more recent study of the background and mental health characteristics of 140 Dutch foreign fighters, Anton Weenink claims to have found evidence that challenges the near-consensus on the "normality" of terrorists.[140] He finds that a large number of individuals in the sample are "relatively troubled" and characterized by "problem behavior" or mental disorders, arguing that the former may "flag an underlying 'psychopathology', such as antisocial personality disorder or mental illness."[141] Weenink's sample of "actual or potential 'jihadists'" - individuals that had left for Syria or was suspected of planning to depart - was drawn from several Dutch police databases. Based on the information sourced from these databases, it is concluded that 20 % of the individuals displayed "either serious problem behavior […] or a diagnosed personality disorder or mental illness […]."[142] Some form of "psychosocial problem" was prevalent among 60 %.[143]

While the study is more transparent and systematic than the earlier mentioned work, there are several methodological flaws that weaken the findings. The author does not problematize the

[139] Bakker 2006: 40, 47. Bakker finds a higher percentage of mentally ill jihadists among his sample, but their absolute numbers are still very low. Bakker sample consists of 242 individuals implicated in 31 plots throughout Europe. The "depth" of the information is to large degree unknown, as most sources are not left out of the study. The study is largely descriptive and characterized by missing values on several of the variables included.
[140] Again, it must be noted that foreign fighters are not necessarily terrorists, even though the author underlines that several of those included in the sample *may* have taken part in terrorist activities or war crimes in Syria or Iraq. This issue is part of a wider problem in terrorism research: Data from a vast array of populations are conflated, even though they are not representative of a single and defined type of behavior, i.e. terrorism. See Anton W. Weenink, "Behavioral Problems and Disorders among Radicals in Police Files", *Perspectives on Terrorism*, 2 (April, 2015), pp. 17-33.
[141] "Problem behavior" in Weenink's study include "conduct that deviates from the social norm and causes harm or distress to oneself and others; such as a history of quarrels, crime and violence." Weenink 2015:19.
[142] Weenink 2015:24.
[143] Weenink 2015:24.

data-gathering procedure used to build the databases or provide parameters for how problematic the "problem behavior" must be for it to be included in the ranking system developed to differentiate the severity of behavior or disorder. Concerning the latter, the author acknowledges the limitations of the data. He does not provide clinical diagnoses, due to the data not being detailed enough to apply standardized criteria for the assessment of mental illnesses.[144] Adding to the issues concerning the data, a lack of a relevant control group does not provide the possibility to assess whether their findings are unique to their sample, or equally prevalent among a sample of individuals from a similar demographic. As noted by the author, the generated statistics are descriptive and do not necessarily provide leverage to support a claim of psychological characteristics as a cause of radicalization.[145]

Based on the findings, as a tentative hypothesis, Weenink suggests that problem behavior and mental illness serve to isolate an individual, thereby making him/her vulnerable to radicalization through the companionship and identity offered in a group setting.[146] Without offering any conclusive evidence, and despite the methodological shortcomings, the study is still urges caution when concluding that mental illness or maladaptation is irrelevant or a non-factor when explaining radicalization processes.

The paucity of empirical studies does not allow for a confirmation of the pathology thesis - nor an outright rejection. Neither can the research provide definitive evidence in support for the "mild pathology" thesis – that certain non-pathological characteristics or inclinations are primary causes of terrorism. A reliance on open sources alone is not sufficient to offer post-hoc diagnosis of terrorists. Concerning the possible prevalence of some form of psychological abnormality among *global jihadi terrorists*, the lack of systematic and detailed data leads to conclusions that cannot be regarded as more than tentative and highly uncertain. To be better able to shed light on this issue, we must turn to insights from a sub-branch of the terrorism literature that is of relevance for the jihadi perspective: the research on suicide terrorists.[147]

[144] Weenink 2015:19-22. The original data material is not available, presumably because of privacy concerns.
[145] Weenink 2015:28.
[146] Weenink 2015:28.
[147] Scholars have reported that 25 % of the "al-Qaeda-related" perpetrators of so-called "lone-wolf" attacks are characterized by a prior history of mental illness. In relation to global jihadi terrorism, "lone-wolf" terrorists operating entirely unconnected to other militants is a relatively rare phenomenon, and this part of the literature is therefore not included in the review. See Paul Gill, John Horgan, and Paige Deckert, "Bombing Alone: Tracing the Motivations and Antecedent Behaviors of Lone-Actor Terrorists." *Journal of Forensic Sciences*, 2 (2014), pp. 425-435.

2.3 Suicide terrorists: Are they suicidal?[148]

Survival is seldom a concern for jihadi terrorists, as the operations they partake in are often of a suicidal character. This is particularly true for those who volunteer for operations where their deaths are a predetermined outcome of the operation itself. Are suicide terrorists suicidal?

As with the general debate on psychopathology as a cause of terrorism, among scholars studying suicide terrorists there exists a near consensus on the absence of suicidal tendencies or other pathological illnesses or traits among suicide terrorists. Several studies, assessments and reviews of the available research have reached the same conclusion: pathology cannot explain the occurrence of suicide terrorism. [149] In a 2007 review of the available evidence, Ellen Townsend argued that not only is there a lack of empirically based studies, but the few in existence provided leverage to the consensus view.[150] Denying the fruitfulness of the pathology perspective, she lamented that

> [t]he results of this review strongly suggest that suicide terrorists are not truly suicidal and that attempting to find commonalities between suicide terrorists and others who die by suicide is likely to be an unhelpful path for any discipline wishing to further understanding of suicidal behavior.[151]

Indeed, even though the scholarly work was based on the same secondary literature, interviews with relatives, or non-clinical assessments conducted by non- psychologists, Martha Crenshaw stated that "[t]here is no longer any need to introduce an analysis of suicide attack by explaining to the uninitiated that it is not rooted in psychopathology […]."[152]

[148] Note that this section is a review of the literature that presents evidence for or against the argument that suicide terrorism can be explained by individual psychological characteristics. The literature on suicide terrorism *in general* is voluminous and covers numerous conflicts, theories, and levels of explanation.
[149] See for example Ellen Townsend, "Suicide terrorists: Are they suicidal?", *Suicide and Life-Threatening Behavior*, 1 (2007), pp. 35-49; Martha Crenshaw, "Explaining suicide terrorism: A review essay", *Security Studies*, 1 (2007): 133-162; Jerrold M. Post, Farhana Ali, Schuyler W. Henderson, Steven Shanfield, Jeff Victoroff, and Stevan Weine, "The Psychology of Suicide Terrorism", *Psychiatry*, 1 (2009), pp. 13-31;
[150] Of the five examples of "empirical reports" listed by Ellen Townsend, three are based on interviews with friends and relatives of the suicide attackers (of which one does not address the issue of psychopathology), and two on interviews with non-suicide terrorists. See Townsend 2007:37.
[151] Townsend 2007:47.
[152] Crenshaw 2007:160.

Against this backdrop of apparent scholarly unity, as perhaps the most vocal advocate of a contrarian stance, Adam Lankford argues that a closer examination of the literature reveals that suicide attackers are indeed suicidal.[153] By arguing that the same body of research used to reject the pathology theory actually confirms it, Lankford posits that "Islamic suicide terrorism" is often conducted by individuals that exhibit the same clinical suicidal risk factors as other non-terrorist suicidal individuals.[154] By using findings from the general literature on "clinical suicidal risk factors and connecting it to initial evidence on suicidal terrorism"[155], he concludes that many suicide terrorists fit the mold of the "regular" suicidal individual. The perpetrators of suicide attacks allegedly harbor a "desire to escape the world" as well as the "responsibility from […] their act of terrorism [and] past sins."[156] Other characteristics that the suicide bomber shares with the "ordinary" suicidal is an inability to "cope with a personal crisis" and a "low sense of self-worth."[157] Thus, the suicide operation offers a convenient and morally acceptable escape for suicidal individuals that cannot bear the stigma associated with an "ordinary" suicide.

Lankford's argument builds on prior research on psychopathology as a cause of terrorism and several in-depth case studies that purportedly confirm his thesis. While some of these case studies offer anecdotal insight into the mental state of the terrorists, the general argument is undermined by several grave methodological and inferential flaws. By basing his conclusion on the same form of biographical information as other researchers, the same limitations on the leverage for causal inference apply. While this lack of detailed information also devalues Lankford's argument, a general lack of methodological rigor is detrimental to the generalizability of the findings. The deliberate selection of confirmatory cases, and more

[153] Adam Lankford, "Do suicide terrorists exhibit clinically suicidal risk factors? A review of initial evidence and call for future research", *Aggression and Violent Behavior* (2010), pp. 334-340.
[154]Lankford 2010:335. Lankford has elaborated on and defended this argument in several other works. See for example Adam Lankford, "Précis of *The Myth of Martyrdom: What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers", Behavioral and Brain Sciences* (2014), pp. 351-362; Adam Lankford, "Evidence that suicide terrorists are suicidal: Challenges and empirical predictions", *Behavioral and Brain Sciences* (2014), pp. 380-393; Adam Lankford, *The Myth of Martyrdom: What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers* (New York: Palgrave Macmillan, 2013).
[155] Lankford 2010:335. Other scholars have noted that his portrayal and application of these risk-factors are problematic. Decades of research on indicators of suicidal risk shows that these are not necessarily accurate predictors of future suicides. Prior attempted suicides - considered the most robust indicator of suicidality - are not included in his biographical examinations of allegedly suicidal terrorists. See, for example, the in-depth study of Mohammed Atta, where the author concludes that Atta was clinically suicidal. Lankford 2012: 150–159. For an article length critique and rebuttal of Lankford's main argument, see Zubair Qamar, "Adam Lankford. The Myth of Martyrdom: What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers", *Perspectives on Terrorism*, 1 (2013), pp. 152-166.
[156] Lankford 2010:335-336.
[157] Lankford 2010:337-338.

importantly, the disregard for the exclusion of cases not included (cases that may provide competing explanations) are even more concerning. Without a visible rationale for the sampling of cases used to bolster his argument, the cases appear to be conveniently cherry-picked to confirm his argument. Put together, there are ample reasons to question both the validity of his retrospective diagnoses approach, and the representativeness of the individuals (cases) included in his study.[158]

Merari et al: Are would-be suicide bombers clinically suicidal?

Among the studies Lankford uses to corroborate the suicidality thesis is one of the few attempts at studying suicide terrorism by conducting clinical psychological assessments. A team of researchers[159], led by Israeli psychologist Ariel Merari, claims to have found evidence of suicidality among a sample of 15 incarcerated Palestinian would-be suicide bombers.[160] Using a control group, clinical interviews and a battery of standardized psychological tests, they reported significant differences between the control group and the incarcerated individuals that had volunteered for suicide operations. Without renouncing the importance of various exogenous factors in the process leading to an attempted suicide attack, Merari et al. concluded that suicidal tendencies and particular character traits were overrepresented among the individuals in their study.

The study was conducted by examining and comparing a group of 15 "would-be suicide bombers" against a group of 14 terrorist "organizers" convicted and jailed for "commanding and coordinating suicide attacks."[161] The control group consisted of 12 men incarcerated for "participation in various political violence activities", selected to mirror relevant characteristics among the first group, such as for example "age, marital status, [and] education

[158] These flaws and others, many of which are common in the study of suicide terrorism, are pointed out by several scholars. See for example Alex Mintz and David Brule, "Methodological Issues in Studying Suicide Terrorism", *Political Psychology*, 3 (June, 2009), pp. 365-371; Scott Atran, "Martyrdom's would-be myth buster", *Behavioral and Brain Sciences* (2014), p. 362-363.
[159] Ariel Merari , Ilan Diamant , Arie Bibi , Yoav Broshi & Giora Zakin, "Personality Characteristics of "Self Martyrs"/"Suicide Bombers" and Organizers of Suicide Attacks", *Terrorism and Political Violence*, 1 (2009), pp. 87-101.
[160] This study also forms part of Ariel Merari's, *Driven to Death: Psychological and Social Aspects of Suicide Terrorism* (Oxford: Oxford University Press, 2010). See chapter five, "A Controlled Study of Would-Be Suicides", pp. 103-146.
[161] Merari et al. 2009:89-90.

[…].”[162] The researchers reported two findings that were particularly striking: the assessments based on clinical interviews, biographical studies, and a set of personality tests showed that 69 % of the “suicide group” had “dependent-avoidant personality styles”, compared to 20 % in the control group, and 8.3 % in the group of organizers.[163] This particular personality trait is characterized by a “tendency to internalize frustrations and anger and direct them against the self”, suggested as a possible explanation for the “willingness to volunteer for a self-destruction mission.”[164] In addition, 40 % of the “suicide group” was assessed to have suicidal tendencies, and 53.3 % showed “apparent depressive tendencies […].” Within the control and “organizer group” none were assessed to show suicidal tendencies, while those in these groups that exhibited depressive tendencies amounted to 8.3 % and 21.4 % respectively.[165] In combination, the authors argue, the distinct personality traits and the suicidal and depressive tendencies among the “suicide group” may serve to *partly* explain why some volunteer to become suicide attackers. These attributes make them particularly susceptible to external influences, “especially by persons perceived as authoritative.”[166]

Not surprisingly, in light of the controversial nature of their findings, they have been subject to criticism.[167] While some of the critique is misplaced[168] and some takes shots at straw man arguments[169], there are aspects of their study that deserve attention. Robert J. Brym and Bader Araj, for example, accuse Merari et al. of convenient, non-random sampling, despite the fact that the sample consists of all known living, incarcerated, would-be suicide bombers that agreed to be examined.[170] While un-informed, non-random sampling severely reduces the reliability of the inferences drawn from the sample, in this case the sampling was as random as possible.

---

[162] Merari et al. 2009:90.
[163] Merari et al. 2009:94.
[164] Merari et al. 2009:97.
[165] Merari et al. 2009:95-96.
[166] Merari et al. 2009:96-97. Note that the authors do not present their findings as a monocausal explanation of suicide terrorism. Their argument is probabilistic - the reported psychological traits and tendencies make it more *likely* that the person engages in this form of terrorism.
[167] For a particular brusque critique of Merari and his team, see Robert J. Brym and Bader Araj, “Are Suicide Bombers Suicidal?”, *Studies in Conflict and Terrorism*, 6 (2012), pp. 432-443.
[168] See Brym and Araj 2012:433.
[169] Merari et al. is criticized for failing to control for the possible psychological effects of incarceration on their group of “would-be bombers”. While it certainly plausible that incarceration may lead to suicidal and depressive tendencies, this possibility is clearly addressed in the study: Primarily by using a control group, but also by noting that “the subjects did not express depression or self-criticism in connection with their failure to carry out the mission. They usually attributed the failure to God’s will, saying that apparently God wanted them to live.” See Brym and Araj 2012:435-436, and Merari et al. 2009:98.
[170] Brym and Araj 2009:433-434.

The most obvious weakness is the small sample size, an issue that is acknowledged by the authors but nevertheless puts constraints on the generalizability and validity of their findings. A minor error in the measurement or clinical assessment will have a large impact on the calculated differences between the "suicide group" and the other incarcerated terrorists. One may also disagree on whether the methodology applied appropriately captures the complexity of the phenomenon, or if it is possible to extract "objective" and "scientific" facts by exposing individuals to psychological examinations, the results of which partly rest upon an assessment by other individuals. In contrast to the "quantitative" and probabilistic approach employed by Merari et al., an interpretative approach to causation would suggest that the inferences drawn by Merari and his team are bound to be influenced by their subjective assessments and interpretations. As an example pointed out by Brym and Araj, psychological tests are not drawn from a canonical list of unquestioned authority, and Merari et al. chose procedures that offered "interpretative leeway"[171] - therefore inducing a degree of possible bias that may lead to overdiagnosis in favor of their argument.[172]

It must also be noted that the reported findings cannot necessarily be applied to other contexts, something the authors are careful to underline. In the context of this review's main perspective of global jihadi terrorism, the conclusions offered by Merari et al may be highly contingent on situational factors found among the suicide terrorists involved in the Palestinian-Israeli conflict.[173] Still, despite the contextual contingencies and methodological limitations, the study is a laudable attempt to move beyond speculation and apply rigor when seeking to assess the importance of individual psychological factors. They do not assert that individual suicidal tendencies and particular psychological traits can singly explain suicide terrorism[174], but neither can these traits be dismissed outright as explanatory factors

[171] Robert J. Brym and Bader Araj, "Suicidality and Suicide Bombing Revisited: A Rejoinder to Merari", *Studies in Conflict and Terrorism*, 10 (2012), p. 736. The questionable nature of some of these procedures is also pointed to by Scott Atran. See Atran 2014:363.

[172] The authors also pointed out that a number of the researchers in Merari's team were affiliated with the Israeli Defense Forces. Though speculative, this was interpreted as a possible source of bias. Brym and Araj 2012:733-739.

[173] As an example, Post et al. have noted the vastly different sociological characteristics separating the median Palestinian suicide bomber and the 9/11 conspirators. See Post et al. 2009:22-23.

[174] On a side note, and linking the individual and the social, it must be mentioned that suicide bombers or "martyrs" often are under strong pressure and influence from their social surroundings. As noted by scholars, "martyrs" are often encouraged, supported, revered and celebrated in their communities or among likeminded individuals. This is likely to impact those harboring suicidal tendencies. See for example Mohammed M. Hafez,

contributing to the process. It is clear that various forms of psychological pathology or personality traits, on their own, cannot be regarded as satisfactory explanations for the occurrence of terrorism.

"Rationality, culture, and structure in the making of suicide bombers: A preliminary theoretical synthesis and illustrative case study", *Studies in Conflict & Terrorism*, 2 (2006), pp. 165-185.

3 Models of Radicalization: The Individual, the Context and the Ideology

At the group or socio-psychological level of analysis, the dynamic interaction between the individual, group, and context or environment is often portrayed as essential in explaining the process of radicalization that sometimes preludes the turn to violence. Moving on from a primary focus on individual psychological characteristics, this literature proposes several socio-psychological mechanisms and processes that link the individual's psychological make-up, motivations and grievances to the aims and outlook of the group or organization, and the context in which they operate. Explanations often rest upon the assumed existence of various forms of *discontent*[175] acting as a cause or catalyst in the process. These experiences or perceived injustices, whether personal or against one's group or community, may cause frustration, moral outrage and a consequent will to alter the situation through action. This, in turn, may lead *some* to end up in a transformative and complex *group process* where one accepts violence as a justifiable course of action. The acceptance, justification, and prescription of violence as the preferable solution are often sourced from an *ideological* framework promoted within the group or context.[176] What do we know about the impact of these proposed causes of radicalization, and how are they hypothesized to affect the process leading to terrorism?

The following sections will introduce and examine hypotheses and explanatory models that are representative of the scholarly effort to explain the occurrence of global jihadi terrorism, highlighting causes and socio-psychological mechanisms found within the interaction of group and individual. To be able to identify causes of terrorism at the socio-psychological or group level of explanation, it seems logical to examine cases of processes that ended in violence (or attempted us of violence). However, if one regards the adoption of radical ideas as a necessary component in the early phases of such a process, studying examples of non-

[175] In the *Oxford Dictionary* (7th edition, 2005), "discontent" is described as "a feeling of being unhappy because you are not satisfied with a particular situation." Though the term might not be completely synonymous to all the related concepts used in the radicalization models and empirical studies, it captures at least parts of the meaning of the various issues presented. This may include proposed structural causes such as socio-economic patterns and discrimination, but also non-systemic factors such as, for example, a personal crisis.

[176] Needless to say, the various explanatory models and hypothesized causal factors differ substantially on what part of the process, or model, are judged to be of the highest importance. As an example, some might highlight particular grievances; others may pinpoint ideology or group mechanisms as the principal component(s).

violent radicalization may also shed light on this non-violent phase of the radicalization process.

The radicalization process

Several authors have offered models that attempt to illustrate and/or explain the process leading to jihadi terrorism. The models are in many respects similar, but they also differ in others. Often the difference lies in what part of the process, what cause or factor, is earmarked as most important. Some models use elements of social movement theory as a framework for explanation, whereas others use an empirical approach to extract patterns or pathways into violent radicalization. While some authors claim to have identified a linear path into militancy, others argue that there is a multiplicity of paths and constellations of factors that may explain violent radicalization. By disentangling the various stages and proposed causes offered in the models, the hope is to better be able to assess whether there exists empirical evidence that lends support to the proposed causes and mechanisms. This will not amount to "testing" the models, but will rather serve as an examination of the degree of correspondence between the arguments and the available evidence.[177] First, we will examine factors that loosely fit within the very broad term "discontent".

3.1 "Discontent"[178] as a necessary cause in modeled radicalization processes

> While incarcerated, he followed the news about the atrocities against the Muslims in Shām [Syria]. Something clicked and he decided to change his life, to live for his religion. After he

[177] According to King and Taylor, "[m]ulti-stage models of radicalization are practically impossible to test empirically. One challenge is to verify if a person undergoes all stages in a specific model, while a particularly thorny methodological challenge would be confirming the sequential aspect of the stages. While models cannot be tested in their entirety, individual stages or factors can. One such factor amenable to research, for instance, is the narrative promoted by jihadists." See Michael King and Donald M. Taylor "The radicalization of homegrown jihadists: A review of theoretical models and social psychological evidence", *Terrorism and Political Violence*, 4 (2011): 617.

[178] Note that the authors of the models and theories may use several concepts and terms to describe the phenomena portrayed in this section. It is perhaps best described as some form of discontent, be it in the form of perceived or real alienation, discrimination, marginalization, identity issues, grievances, crisis, injustice, stigmatization, humiliation, repression, etc. Evidently, the factors presented in the literature are diverse in nature, covering economic, cultural, political and idiosyncratic personal reasons. The vast array of potential causes filed under "discontent" often takes the form of "push-factors"; something that generates unhappiness or discontent and therefore urge the individual to act or set in motion some form of change.

was released from prison, he quickly joined his brother Khālid, began buying weapons, searched for lodging, and made plans.[179]

Among the explanatory models that portray the routes to becoming a terrorist, some form of discontent is very often presented as a necessary cause that facilitates radicalization. Often thought to work in in conjuncture with other factors, the discontent may stem from a wide variety of crises, grievances or deprivation. The sources of the discontent, real or perceived, relative or absolute, personal or on behalf of a group, are seen as the foundation or starting point of the radicalization process in many of the explanatory models.

In an early attempt at forging a heuristic to illustrate and understand the jihadi radicalization process, Randy Borum described the initial phase of his proposed four-stage process as the "it's not right"-phase.[180] Something in the context is interpreted as undesirable, causing a feeling of discontent, either personally or on behalf of one's group or community. A more elaborate rendering of this phenomenon is found in Marc Sageman's *Understanding Terror Networks.*[181] The study, based on biographical data on 172 jihadists affiliated with Al-Qaeda[182], found that poverty could not explain the discontent that characterized those in the sample.[183] Rather, individuals that felt "excluded", "alienated" and "perhaps discriminated"

[179] Quote from Islamic State's official magazine "Dabiq" (issue 14, p. 6), eulogy of Ibrāhīm al-Bakrāwī, who participated in the Brussels attack on March 22, 2016. Available at http://jihadology.net/2016/04/13/new-issue-of-the-islamic-states-magazine-dabiq-14/.

[180] Randy Borum, "Understanding the Terrorist Mindset", *FBI Law Enforcement Bulletin*, 7 (2003), pp. 7–10. Borum's model, in contrast to some of the other models in the literature, is not empirically derived. It serves as an example of a coarse and linear or stepwise "ideal" radicalization process.

[181] Unfortunately, despite the author's discussion on the reliability of his open-source data, his source material is not public. It is therefore hard to credibly assess the strengths and weaknesses of his dataset, the level of detail, or presence of possible bias. Sageman himself doubts that the sample is representative for the whole population of militants, and the lack of control group prompts him to label his findings as "suggestive hypotheses." We are largely dependent on his interpretation of the data. Both his sample and findings must therefore be treated with some caution. See Sageman 2004:64-68.

[182] In *Understanding Terror Networks,* Sageman divides his sample of jihadi terrorists into four clusters:

1. The Central Staff, consisting of veterans from the Soviet-Afghan conflict
2. The South-east Asians, mainly future members of the Jemaah Islamiyah
3. The Core Arabs, situated in the West as students and workers, but brought up in Arab countries
4. The Maghreb Arabs, mainly first- or second-generation immigrants in France

[183] Interestingly, the individuals in the "Maghreb Arab/immigrant"-cluster differ from the other samples in some important aspects. They are of a generally lower socio-economic status, they are less educated, are not religiously schooled, and showed few signs of religiosity as youths. See Sageman 2004:73-78.
On a side note: In his comprehensive study of socio-economic variables' impact on the occurrence of terrorism, Alan Krueger rejected that two were strongly correlated. When addressing the importance of education among global jihadi terrorists in the West, Krueger leaned on Sageman's dataset, the empirical foundation of which is not public. It is therefore difficult to assertively claim that relative deprivation does not affect recruitment to contemporary global jihadi terrorism. More recent, highly preliminary, correlational evidence points to relative deprivation as important when explaining the number of foreign fighters per capita. See Krueger 2007:39, 44;

against characterized the two clusters of terrorists situated in the West.[184] Sageman notes that their radicalization generally started in their host societies, "in a situation of relative deprivation" and "under some form of distress", making them search for a "cause and comrades."[185]

In *Leaderless Jihad,* Sageman further explored this dynamic[186], now focusing mainly on what he labeled the "third wave" of global jihadists, the second and third-generation of Muslim immigrants in Europe. His four-pronged model suggests that there are four dimensions inherent to the process; *moral outrage, a perceived war against Islam, resonance with personal experiences, and mobilization by networks.* These four do not necessarily have to play out in any particular order, and they interact with each other, making it difficult to assess to what degree a potential militant is close to the "tipping point". The personal experience of the "homegrown" terrorist, one of discrimination based on identity, is bridged with a moral outrage over incidents and accounts of what they perceive as a Western assault on Islam or Muslims on general. Sageman uses the U.S. invasion in Iraq as a potent example of the latter[187], an effect pointed out by several scholars, and congruent with the common argument that Western occupation is a major cause and motivational factor in terrorist recruitment.

Sageman asserts that the moral outrage produced by events like the war in Iraq is particularly powerful among those who for various reasons also harbor personal animosity or grief towards their societies. In this way, the local grievances become a part of a greater struggle.

See Philip Verwimp, "Foreign Fighters in Syria and Iraq and the Socio-Economic Environment They Faced at Home: a Comparison of European Countries", *ECARES working paper*, 50 (2015). Available at https://dipot.ulb.ac.be/dspace/bitstream/2013/221722/3/2015-50-VERWIMP-foreign.pdf.
On a side note of the side note, it is also worth to mention that the organizations that often spur, fund and orchestrate attacks on the West often originate in poor and war-struck countries such as Afghanistan, Yemen, Iraq, Syria and others. In these locations, poverty is a factor in their ability to recruit members to terrorist organizations. While these individuals may never partake in terrorism in the West, they still contribute to sustaining the organizations that call for attacks in the West. In this way, poverty can be said to be indirectly linked to global jihadi terrorism, through a "spillover" effect from local conflicts. Poverty may therefore work differently in different contexts. See for example Michael Mousseau, "Urban poverty and support for Islamist terror: Survey results of Muslims in fourteen countries" *Journal of Peace Research*, 1 (2011), pp. 35-47; "spillover effect", see Petter Nesser, "Jihadism in Western Europe after the invasion of Iraq: Tracing motivational influences from the Iraq war on Jihadist terrorism in Western Europe", *Studies in Conflict & Terrorism*, 4 (2006), pp. 323-342.

[184] Sageman 2004:96-98.

[185] Sageman 2004:97-98.

[186] Sageman expanded his sample to around 500 individuals, with a particular focus on "the third wave". Whereas *Understanding Terror Networks* contained at least some biographical information on the individuals in the sample, the data and research method is even more opaque in *Leaderless Jihad.* His database is not public, and is therefore not open to scrutiny. See Marc Sageman, *Leaderless Jihad: The Face of Modern Terror* (Philadelphia: University of Pennsylvania Press, 2008), pp. 23-25 and 35-38.

[187] Sageman 2008:92-93 and 99-101.

Whether real or perceived, the suffering on a personal level to various degrees paves the way for an alignment and link between the personal and the grievances of one's group.[188]

Sageman notes the large discrepancy in the occurrence of "homegrown" terrorism in the U.S. and Europe. He hypothesizes that the relative deprivation suffered by Europe's Muslims account for this difference.[189] This, in sum, illustrates that some form of discontent forms an important part of Sagemans's model, as this discontent increases the allure and salience of the global jihadi narrative. Such discontent may manifest itself through personal experiences of discrimination and alienation, or moral outrage over the perceived Western campaign against Islam and Muslims in general. The personal experiences fuel the perception of a broad Western assault on Muslims.

While Sageman's explanations and proposed causes seem plausible and in many ways are congruent with other models and explanations, there are several reasons to approach his findings with care or perhaps even skepticism.[190] Among the methodological flaws in the study, the most glaring shortcoming is the severe lack of transparency. One is left to guess whether the data supports (or contradicts) his arguments, or if the level of detail can underpin a valid interpretation of the individual militant's motivations and grievances. Furthermore, the lack of transparency not only makes it impossible to assess the internal validity of his study, but also to what degree his proposed causal explanations may be relevant outside of his sample.[191] He offers no explicit sampling procedure from which one can judge whether the sample is representative or contaminated by bias introduced by the procedure itself. Sageman himself is a staunch supporter of scientific rigor:

> The key to unlocking the mysteries surrounding terrorism is found in social science methods – statistics, sampling theory, survey techniques, measurement, data analysis – as the basis for investigation.[192]

[188] Sageman 2008:89-93.
[189] Sageman 2008:99-118. Sageman hypothesizes that economic deprivation is a major factor in the radicalization of European Muslim youth.
[190] This is not necessarily the case among many scholars. Despite of the various shortcomings, Sageman's two monographs are highly influential, and have been cited well over 3400 times.
[191] Sageman seemingly suggest that his findings are generalizable, but only to other instances of jihadi terrorism. Judging from the explicit research methodology, there is ample reason to question the validity of the causal explanations and the generalizability of these. See Sageman 2008:38.
[192] Sageman 2008:24.

By failing to follow the transparency-principle, the "meta-standard" of rigor, to what degree his study adheres to other more specific principles is impossible to assess. An explicit methodology and access to the dataset would not only strengthen his analysis, but also be of great help to other scholars in a field where quality data is in high demand.

Discontent as a "cognitive opening"

Other proposed models of the radicalization process allude to similar, personal grievances or experiences as a contributing factor. In Quintan Wiktorowicz' radicalization model, the term "cognitive opening" encompasses a wide array of discontent:

> [A] crisis can produce a "cognitive opening" that shakes certainty in previously accepted beliefs and renders an individual more receptive to the possibility of alternative views and perspectives. The specific crisis […] can be categorized as economic (losing a job, blocked mobility), social/cultural (sense of cultural weakness, racism, humiliation), and political (repression, torture, political discrimination). To this list I would add "personal," since cognitive openings can be produced by idiosyncratic experiences, such as a death in the family, victimization by crime, and family feuds.[193]

The extensive menu of possible crises, the sources of which may span from the individual to the international, includes themes and experiences that other scholars have singled out as important explanatory factors. Thomas Hegghammer, for example, finds that repression and torture suffered at the hands of Saudi authorities played a part in motivating and stiffening the resolve of al-Qaeda members attacking targets within their own society.[194] Less tangible experiences such as racism or humiliation are also present in the literature.[195]

[193] Quintan Wiktorowicz, "Joining the Cause: Al Muhajiroun and Radical Islam". Paper presented at "The Roots of Islamic Radicalism" Conference, *Yale University, USA, May 8-9* (2004a), p. 8. Available at http://insct.syr.edu/wp-content/uploads/2013/03/Wiktorowicz.Joining-the-Cause.pdf
[194] Thomas Hegghammer, *Jihad in Saudi Arabia: violence and pan-Islamism since 1979* (Cambridge: Cambridge University Press, 2010), p. 190, 230.
[195] Humiliation as many of the other proposed causes, can be experienced on a personal level, but also by proxy through for example images from Guantanamo or Abu Ghraib. See for example Mohamed Ayoob, "Political Islam: Image and Reality", *World Policy Journal*, 3 (2004), pp. 1-14; Jessica Stern, "Chapter two: Humiliation", in *Terror in the Name of God* (New York, Harper Collins, 2003), pp.32-62.

So too is Western foreign policy. Not only are references to occupation hallmarks of global jihadi rhetoric and reasons for jihadists to justify attacks in the West[196], it has also been found to be an important factor in studies of individual pathways into jihadi terrorism.[197] Thomas Hegghammer's study of the militants involved in the wave of anti-Western attacks inside the Kingdom of Saudi Arabia in the years after 9/11 serves as a non-Western example. Recruits who were initially trying to enter the conflict in Iraq were in various ways deflected or convinced to fight the jihad against the "crusaders" inside Saudi Arabia.[198] In the Western context, numerous studies show that many militants cited Western foreign policy as a motivation for their descent into violence.[199] Western participation in wars on Muslim soil made their host societies legitimate targets, in line with the global jihadi imperative to resist and avenge the occupation by bringing the fight to the streets of the occupiers.[200]

Likewise, discrimination and racism are often cited as common experiences for members of immigrant communities in the West.[201] These hypothesized factors find resonance in Wiktorowicz' model. He utilizes elements of Social Movement Theory[202] to explain the radicalization process. The "cognitive opening" is important as it makes the individual perceptive to the narrative disseminated by jihadi groups. This facilitates "framing", where

[196] See for example Thomas Hegghammer, "Global Jihadism After the Iraq War", *Middle East Journal,* 1 (2006), pp. 11-32; Petter Nesser, "Ideologies of Jihad in Europe", *Terrorism & Political Violence,* 2 (2011), pp. 173-200.

[197] Pettern Nesser argues that his case studies show a "motivational spillover effect" from the Iraq conflict into the European theatre. Using several proxy indicators to gauge the motivational effect, Nesser claims that the Madrid bombings are a particularly potent example of this phenomenon. For a study of the motivational effect of the war on two European attacks, see Nesser 2006:323-342.

[198] Hegghammer 2010:193-198. Many militants wanted to attack the Americans in Saudi Arabia to prevent them from using the country as a staging ground for attacking Muslims in Iraq. Interestingly, the conflict also spurred a rift between those that wanted to instigate a terror campaign in Saudi Arabia as part of the global jihad, and those that preferred "classic jihad" in Iraq. However, though a very salient motivational factor, the "classic jihad" in Iraq eventually drained the Saudi terror campaign of support, recruits and resources. See p. 223-235.

[199] For recent examples, see Jamie Bartlett and Carl Miller, "The Edge of Violence: Towards Telling the Difference Between Violent and Non-Violent Radicalization", *Terrorism and Political Violence,* 1 (2012), pp. 6-7; Jerome P. Bjelopera and Mark A. Randol, ""American Jihadist Terrorism: Combating a Complex Threat", Congressional Research Service, Dec. 7, 2010; John McCoy and W. Andy Knight, "Homegrown Terrorism in Canada: Local Patterns, Global Trends", *Studies in Conflict & Terrorism,* 4 (2015), pp. 254-274.

[200] See for example Brynjar Lia, "Al-Qaeda's Appeal: Understanding its Unique Selling Points", *Perspectives on Terrorism* (May, 2008), pp. 3-10.

[201] Bartlett and Miller 2012:8.

[202] In the words of Petter Nesser, Social Movement Theory "defines the starting point for social mobilization as a sense of relative deprivation, social injustice and crisis. To deal with an unbearable situation, disenfranchised societal sub-groups will exploit windows of opportunity to mobilize popular support, organizational structure, capital, leadership and know-how (resource mobilization). Further, in order to sustain a radical movement and gain popular support, movement leaders and ideologues need to construct meanings resonating with the beliefs and perceptions of reality in potential supporters or constituencies, process referred to as 'framing'". Nesser 2011b:29, footnote 49.

the experience of the individual is aligned to the group narrative. The "frames" are described as

> […] interpretative schemata that provide a framework for comprehending the surrounding environment. They offer a language and cognitive tools for making sense of events and experiences by interpreting causation, evaluating situations, and offering proscriptive remedies.[203]

Basing his model on interviews with members of the UK branch of al-Muhajiroun[204] - a radical Islamist organization founded by the deported extremist Omar Bakri Mohammed - Wiktorowicz adds that the "cognitive opening" is often coupled with a profound sense of lacking an identity among many immigrants in the West.[205]

This combination is similarly hypothesized among other scholars. Anja Dalgaard-Nielsen found that identity issues were pinpointed as central to the radicalization process in several studies of Islamism as a social force in the contemporary West. She found that several French sociologists argue that

> violent radicalization arises out of the particular challenges faced by an increasingly Westernized generation of young Muslims in Europe, who attempt to carve out an identity for themselves. (…)This search, however, is particularly acute, they argue, for second or third generation Muslim immigrants, who have become westernized to the extent of no longer feeling part of the community of their parent's home countries. Simultaneously, however, they experience various forms of discrimination and socioeconomic disadvantage in European societies, leaving them with what Khosrokhavar and Roy term a double sense of non-belonging.[206]

---

[203] Wiktorowicz 2003:5. Wiktorowicz takes an interpretative approach to explanation, rather than measuring or weighing an objective reality or empirical facts to explain the causal sequence. His analysis underlines the importance of the social construction of meaning within the group, and the subsequent individual interpretation that may explain why some individuals radicalize.

[204] In relation to explaining terrorism, the model is lacking as it does not purport to explain why some transgress from ideological radicalism to violent behavior. Still, the concepts of "cognitive opening" and "framing" are useful to illuminate a possible mechanism that explains the adoption of the jihadi narrative. As the author notes himself, the patterns extracted from the interviews are not necessarily generalizable, but nonetheless corroborate on findings from other studies. See Wiktorowicz 2003:2-3 and 6.

[205] Quintan Wiktorowicz, *Radical Islam Rising: Muslim Extremism in the West* (Oxford: Rowman & Littlefield, 2005), pp. 87-92.

[206] Anja Dalgaard-Nielsen "Violent Radicalization in Europe: What We Know and What We Do Not Know", *Studies in Conflict & Terrorism*, 9 (2010), pp. 800-801.

In his analysis of the rise of global jihadi terrorism, Olivier Roy incorporates several of the issues proposed by Wiktorowicz. In his view, the search for, or attempted recreation of a lost identity is a common denominator among jihadi terrorists. For those who feel alienated and out of place in the West, the global jihadi narrative offers an answer to those that perceive themselves as "victims of racism, exclusion and loneliness." Taking part in the struggle on behalf the idealized, global Ummah functions as a "valorizing substitute identity: members of the vanguard of international jihadists who fight the global superpower and the international system."[207] The jihadi identity is available for those who are victims of racism; it offers redemption from delinquency, and it inserts a sense of rebellion and purpose to their lives.[208]

Although the descriptions may encompass the experiences of a large proportion of the immigrant population, they echo many of the explanations offered by Sageman, Wiktorowicz, and others. Whereas the mentioned models do not present the radicalization process as ideal paths to militancy, other explanatory models portray the path to violent behavior as linear and stepwise processes that emerge from feelings of discontent.

The radicalization "staircase" and the "NYPD"-model

Other models on violent radicalization similarly underline the presence of some kind of discontent as an important part of the process. Examples of such are Moghaddam's Staircase model, and Silber and Bhatt's "NYPD" Model[209]. The former is a built on studies of psychological processes, where a six "floor" model serves as a metaphor for the possible journey towards terrorism. On the ground floor, Moghaddam argues that a feeling of injustice will lead "a number of those who feel unjustly treated [to be] motivated to march along alternative paths, even desperate and radical ones, to address their grievances".[210] On the first

[207] Olivier Roy, *Globalized Islam: The Search for a New Ummah,* (New York: Columbia University Press, 2004), p. 309.
[208] Roy 2004:308-319. These rather sweeping statements, though seemingly plausible, are not anchored in a systematic research design or study that allows for such generalizations.
[209] Mitchell D. Silber and Arvin Bhatt, "Radicalization in the West: The Homegrown Threat", *The New York City Police Department* (2007). Available at http://www1.nyc.gov/html/nypd/downloads/pdf/public_information/NYPD_Report-Radicalization_in_the_West.pdf.
[210] Fathali Moghaddam, "Staircase to Terrorism: A Psychological Exploration", *American Psychologist,* 2 (2005), p. 163.

floor, this frustration may be vented if there is an open possibility of climbing the social ladder, or if those affected have the opportunity to improve their situation through participation in decision-making processes.[211] Each floor is founded on relevant theories of psychological processes, but there is a lack of empirical evidence of the proposed linking mechanisms that may better explain why some remain on one floor, while others continue their ascent towards violent extremism.[212]

The "NYPD"-model or framework was derived from case studies of five major jihadist plots[213], and applied to five plots on American soil and also to Mohammed Atta's Hamburg Cell. It leans on the same idea of a "cognitive opening" as found in Wiktorowicz' model. Included in this opening or personal crisis, as in some of the other proposed frameworks, are such wide ranging experiences and events as "losing a job", "alienation", "international conflicts involving Muslims", and "death in the close family."[214] Following Wiktorowicz, they also claim that this opening often leads an individual into an identity crisis, making them susceptible to "extremist Islam.[215]"

Using similar arguments in their "Root Cause Model"[216] of radicalization, Tinka Veldhuis and Jørgen Staun theorize that several of the aforementioned sources of discontent are important causal factors in the radicalization process. Based on a combination of theoretical and empirical studies[217], their model also emphasizes aspects such as an individual and collective identity crisis, discrimination, and exclusion.[218] They situate these causes as both individual-

[211] Moghaddam 2005:164. Moghaddam exhibits a firm belief in the ameliorating effect of democratic institutions, particularly in a Middle Eastern context.
[212] As Maguns Ranstorp et al point out, even though some of the psychological processes in the model are well founded, there is little evidence to support the stepwise, linear progression proposed in the model. For a thorough examination of the evidence presented, see Magnus Ranstorp, Ragnhild B. Lygre, Jarle Eid and Gerry Larsson, "Terrorism as a process: A critical review of Moghaddam's 'Staircase to Terrorism'", *Scandinavian Journal of Psychology*, 52 (2011), pp. 609-616.
[213] Silber and Bhatt 2007:15. The case studies included "Madrid's 3/11/04 attack, Amsterdam's Hofstad Group, the London-Leeds 7/7/05 attack, Australia's Operation Pendennis which thwarted an attack(s) in November 2005 and Canada's Toronto 18 Case, which thwarted an attack in June 2006."
[214] Silber and Bhatt 2007:30.
[215] Silber and Bhatt 2007:82.
[216] Tinka Veldhuis and Jørgen Staun, Islamist Radicalisation: A Root Cause Model, Netherlands Institute of International Relations Clingendael (October, 2009). In contrast to the linear trajectories modeled in the "Staircase" and "NYPD" models, Veldhuis and Staun suggest that the radicalization process take different forms for different people.
[217] Among the studies used to derive the model are several of the above mentioned models and theories, such as Wiktorowicz (2004), Sageman (2004, 2008), Roy (2004), and Bakker (2006). As noted in the descriptions of these studies, the sometimes questionable empirical basis urges one to treat the findings and conclusions with caution.
[218] Veldhuis and Staun 2009:41.

and social-level "root factors". Not all the suggested factors are necessary in every radicalization process, but the presence of some is an important prerequisite in most cases.[219]

All these models in various ways link ubiquitous and widespread experiences to violent radicalization. The models and theories spawn a long list of potential sources of discontent, and use broad concepts to describe them. A common feature is the fact that many of the proposed causes, or the mechanisms through which they may operate, are more or less unobservable.[220] Researchers must identify and interpret possible manifestations of abstract concepts, and thereby judge their causal impact on the radicalization process against other plausible explanations. Merely pointing to the presence of such a concept is obviously not grounds for establishing that they are causes of an effect.

Another common feature of explanatory models is that they in one way or another invoke emotions related to how an individual perceives himself and his group in relation to society in general. King and Taylor argue that research on relative deprivation has shown that the emotive and cognitive link between the personal and the group is important, as

> it is the emotions elicited by the injustice—not only the cognitive awareness of the injustice—that predict collective action. Second, it is group-based relative deprivation, as opposed to personal deprivation, that predicts collective action. (...)Unfortunately, many discussions of radicalization do not include these nuances.[221]

Many of the grievances and experiences proposed in the models work to elicit strong emotional reactions among those affected. In what way may these emotions serve as a propellant in the radicalization process? The arguments found in the literature suggest that participation in terrorism is often an idiosyncratic and sometimes emotional response to real or perceived personal or group injustices. Regardless of whether the decision to engage in terrorism is a rational and calculated decision or an impulsive and emotive response caused by

[219] Veldhuis and Staun 2009:21-24.
[220] Some proposed causes such as, for example, economic deprivation are of course measurable, but an assessment of their motivational function in a radicalization process rests on an interpretation of the available evidence.
[221] King and Taylor 2010:610.

for example humiliation[222], the causes and motivations present in the long list of sources of discontent is hypothesized to fit into the "explanatory framework" presented in the global jihadi narrative. To what degree does the systematic empirical literature on jihadi terrorism lend support to the propositions offered in the models?

3.1.1 The empirical evidence: The presence and causal importance of "discontent"

Though not very extensive, the rigorous empirical literature on the causes of global jihadi terrorists offers some evidence of the presence of issues discussed thus far. In perhaps the most detailed and comprehensive study of jihadi terrorists in Europe, Petter Nesser shows that the sources of discontent proposed in the radicalization models are of importance for some of the individuals in the cases he investigated and compared.[223] Nesser's study stands out in the literature as an example of a systematic and methodologically sound examination and comparison of several jihadist cells, tracing the constituent individuals over an extended period. This approach, coupled with a broad assortment of open source material, allows for a credible interpretation and assessment of the motivational forces driving the individuals in his study. Employing the process-tracing method, Nesser's inductive study distinguishes itself from other case studies in the literature by offering both empirical and analytical rigor. The detailed evidence from his process-tracing allows for, and is combined with, a comparison of various cells or plots, elucidating patterns and causal consistencies across the cases.

Furthermore, the various sources he draws upon are problematized and evaluated in a transparent manner.[224] His interpretation and assessment of motivational factors consist of a

[222] Several scholars argue that reasons other than rational self-interest are important when attempting to explain the turn to violence. This subject is further explored in the section on group processes and ideology. See for example Scott Atran, "The moral logic and growth of suicide terrorism", *The Washington Quarterly*, 2 (2006), pp. 127-147; Bryan Caplan, "Terrorism: The relevance of the rational choice model", *Public Choice* (2006), pp. 91-107; Mia Bloom, *Dying to Kill*, (New York: Columbia University Press, 2007), pp. 85-88; Mohammed M. Hafez, "Rationality, Culture, and Structure in the Making of Suicide Bombers: A Preliminary Theoretical Synthesis and Illustrative Case Study", *Studies in Conflict and Terrorism*, 2 (2006), pp. 165-185.

[223] Petter Nesser, "Joining jihadi terrorist cells in Europe", in *Understanding Violent Radicalization: Terrorist and Jihadist Movements in Europe*, ed. Magnus Ranstorp (Abingdon: Routledge, 2010), p. 88.

[224] Petter Nesser, "Jihad in Europe: Patterns in Islamist terrorist cell formation and behavior" (Phd. Dissertation, University of Oslo, 2011), 45-54. The study is based on secondary literature, press reports, "judicial documents, official reports and interviews." The author acknowledges the possible bias issues when selecting cases based on the amount of availability of information about the cases and his knowledge of these. The small number of available cases makes random sampling a worse option than Nesser's informed selection of cases from different

systematic "triangulation" of the terrorist's own statements[225], contrasted with other sources and contextual information - guided by a selection of relevant indicators/variables drawn from the terrorism literature.[226] The study serves as a nuanced and detailed corrective to simplistic models of the radicalization process, illustrating that these fail to capture the complexity of cognitive and behavioral radicalization.

His study reveals and illustrates the causal *equifinality* among the militants in question – a plurality of different causal paths or processes leading to the same outcome. The empirically-derived typology offered by Nesser, consisting of ideal types of terrorists or cell members, illustrates that the radicalization process is highly complex. Individuals engage in terrorism for different reasons, but there are patterns or constellations of backgrounds and motivational drivers that seem to characterize the various ideal types.[227]

Relevant to the issues discussed in this section, Nesser addresses both the sociological background of the terrorists and motivational forces driving them. In general, the author argues that

> […] although many European jihadists could be characterized as gifted people who did not experience serious socio-economic hardships, they were far from harmonious people. Many of those implicated appeared alienated and humiliated, sometimes exposed to racism and relative deprivation, and thus vulnerable and receptive to the militants' propaganda, their offering of social gains, such as clearly defined identity, spirituality, and a consistent ideology defining the wrongdoers of world politics […].[228]

In the typology of the various "roles" within the terrorist cells, Nesser argues that it is the "foot soldiers" or "misfits" who most often seem to be motivated by personal deprivation or a crisis of some sort.[229] If one focuses on grievances such as feelings of injustice on behalf of

---

parts of Europe and across the timeline of the study. The cases are judged as typical and representative of the jihadi phenomenon in Europe. See "Method" in Nesser 2011b:33-54, and George and Bennett 2005:22-25.

[225] If the militant's stated reasons for engaging in terrorist activities are taken at face value, on must still consider the possibility that the reasons stated have changed considerably over time. As John Horgan puts it, "the reason given for involvement may be a direct reflection of an ideological learning process that comes from being part of the group." See Horgan 2008:86.

[226] Nesser 2011b:37-41.

[227] Nesser 2011b: 526-532.

[228] Nesser 2011b:521.

[229] Interestingly, even though some "types" cell members are said to be motivated by social grievances, Nesser concludes that ideology is more important. This finding is discussed further in the section on the importance of group mechanisms and ideology. See Nesser 2011:55.

one's group, or political grievances in general, the issues discussed so far would be of relevance in relation to three out of the four ideal types identified by Nesser.[230]

Edwin Bakker's study of European jihadists, applying the framework from Sageman's *Understanding Terror Networks,* contains an analysis of 28 networks of European jihadists[231] and compared these to Sageman's findings. The "incidents" used to identify these networks are examined through biographical information gathered from open sources.[232] Bakker concludes that the data is too patchy to establish whether the jihadists in his sample suffered from relative deprivation. Still, he finds that there were relatively high levels of unemployment among his sample of 242 individuals. As he notes, this is in line with the general situation for immigrant populations in many Western societies.[233] Though Bakker lists the names of the individuals included in the sample, as with Sageman's sample, the lack of references makes it impossible to assess the quality and nature of the sources and the level of detail they provide. The study is generally descriptive in nature, offering few possibilities of drawing valid inferences on the causal impact of various factors. Bakker refrains from using the sample as basis for conclusive causal arguments on whether various grievances were causally important in the violent radicalization of those included. While he does not present a relevant control group for comparison, he notes that his European sample includes more individuals that hail from "the lower strata of society"[234] compared to those in Sageman's sample. Also, almost 20 % of his sample had a criminal record before their involvement in terrorism.[235]

In a more detailed survey of Dutch Muslim youth, Slootman and Tillie found that political grievances and the notion that "society deal with Muslims in an unjust manner threatening to Islam" is an important reason for radicalization.[236] This perceived injustice fits within the very

[230] Nesser 2011b:526-532.
[231] Bakker 2006:18-29.
[232] Bakker acknowledges that the poor quality of data is perhaps "the largest obstacle" to the research on jihadist milieus. This realization is evident in his recommendation to threat the conclusions with caution. See Bakker 2006:16-17, and Edwin Bakker, "Characteristics of Jihadi Terrorists in Europe", in *Jihadi Terrorism and the Radicalization Challenge: European and American Experiences,* ed. Rik Coolsaet (Farnham: Ashgate Publishing Company, 2011), p. 142-144.
[233] Bakker 2011:139-140.
[234] Bakker 2006:43.
[235] Bakker 2011:143-144. Again, both Sageman's and Bakker's datasets suffers from a lack of transparency and insufficient and missing data on a significant number of the individuals included.
[236] Marieke Slootman and Jean Tillie, *Processes of radicalisation. Why some Amsterdam Muslims become radicals* (Amsterdam: Institute for Migration and Ethnic Studies, University of

wide understanding of grievances encountered in the radicalization models.[237] Their study consisted of a survey of 321 Muslim youths in Amsterdam and field interviews with 24 youth "on the verge of radicalizing"[238] of "twelve radical Muslim youths (the so-called *salafi-jihadis*, who theoretically defend the use of violence)".[239] The survey does not examine individuals who have utilized violence to "right" the "wrongs", and therefore cannot offer insight into what role the perceived injustices play in the transformation from internalizing radical beliefs to adopting violent means. Due to the small sample size and questionable sampling procedures[240], it is doubtful that the sample of 24 near-radicalized youths, and the 12 "salafi-jihadis" is representative of radicalized, Dutch Muslims in general and certainly not of jihadi terrorists in particular.

Looking to shed light on what turns radicals violent, Jamie Bartlett and Carl Miller conducted a study that sought to contrast the "attitudes, ideologies, experiences, identities, and backgrounds" of a group of convicted "homegrown" jihadi terrorists in Canada and Europe, and control groups of what they termed as "radicals" and "young Muslims."[241] Confronted with the difficulty of acquiring access to the convicted terrorists, the authors had to rely on court transcripts, press reports and interviews with acquaintances of the incarcerated terrorists - 61 profiles in total. The control groups consisted of 28 "radicals" and 70 "young Muslims", where those selected were subject to in-depth interviews to produce data that could be contrasted with the terrorist profiles.[242] Their study sought to produce data on the impact of factors often proposed in the literature, including categories found in the radicalization models, such as "alienation from the state", "foreign policy", "discrimination" and "identity." Their findings revealed that a majority in their control groups harbored the same mistrust and dislike towards their government as evident among the convicts. Likewise, the foreign policy of Western countries were a universal source of anger, though many in the group of "young Muslims voiced anti-war arguments that were unrelated to their Muslim identity."[243] Adding

---

Amsterdam, October 2006), p. 4-5.
[237] What is seen as a valid political grievance in one study could be interpreted as ideological statement inspired by the jihadi ideology or narrative in others.
[238] Slootman and Tillie 2006:13.
[239] Slootman and Tillie 2006:5.
[240] As an example, Slootman and Tillie's rationale for their selection of youths to be interviewed seem to be convenience and links to common acquaintances. See Slootman and Tillie 2006:13.
[241] Bartlett and Miller 2012:1-4.
[242] Bartlett and Miller 2012:3-6.
[243] Bartlett and Miller 2012:6.

to these commonalities between the violent and non-violent groups, Bartlett and Miller also state that identity issues and perceived discrimination were present across all three datasets.[244]

Several other recent case studies and samples from various contexts offer anecdotal evidence that elucidates the role of discontent as a catalyst for radicalization.[245,246] Weenink's study of Dutch foreign fighters, although mainly addressing the presence of mental issues, provided descriptive information that indicated that many in the sample came from troubled backgrounds, lacked higher education, and had experienced personal crises, unemployment and even homelessness prior to their radicalization.[247]

As in the empirically derived models and the other examples of surveys and evidence-based case studies, the presence of various forms of discontent seems to characterize violent radicals, non-violent radicals and relevant control samples. Even if the importance of some form of discontent is established, the sheer number of people exposed to these experiences clearly indicates that there must be additional factors at work.

3.1.2 The problematic ubiquity of "discontent"

Obviously, none of the models presented propose mono-causal explanations – a deterministic path from discontent to terrorism. Considering the staggering occurrence of counter-examples, such a claim would be absurd. There are millions of individuals exposed to the experiences and factors presented in the models, theories and studies, but only a minute part of these people engage in terrorist activities. There are reasons be cautious when assessing the proposed explanatory power of the "discontent"-phenomena found in the literature.[248]

[244] Bartlett and Miller 2012:8.
[245] See for example Stefan Malthaner, "Contextualizing Radicalization: The Emergence of the 'Sauerland-Group' from Radical Networks and the Salafist Movement", *Studies in Conflict and Terrorism,* 8 (2014), p. 644; Aidan Kirby, "The London bombers as "self-starters": A case study in indigenous radicalization and the emergence of autonomous cliques", *Studies in Conflict & Terrorism* , 5 (2007), pp. 415-428; Anne Aly and Lason-Leigh Striegher, "Examining the Role of Religion in Radicalization to Violent Islamist Extremism", *Studies in Conflict and Terrorism,* 12 (2012), pp. 849-862; McCoy and Knight 2015.
[246] A few studies play down the importance of the issues discussed in this section. See for example Randol and Bjelopera 2010.
[247] As previously noted, the quality of the data in Weenink's study is questionable due to the lack of detail and various sources of error related to the collection procedure. See Weenink 2015:23.
[248] Here it must be noted that most scholars acknowledges the limited amount of and quality of the data, and the resulting uncertainty of the conclusions.

The dearth of available data result in few empirical studies that can lend support to or discredit the models and theories that emphasize the importance of discontent as a causal factor. In-depth interviews of terrorists are for obvious reasons seldom an option. Terrorists are usually locked up, unreachable, dangerous or deceased. If such high quality data was available, the task of measuring the broad selection of proposed phenomena would not be straightforward - nor would judging how it impacted on the violent outcome.

When examining a relatively small number of cases to assess a model or hypothesis, it would require very detailed data on the inner workings of a group (or individual!) to be able to establish what causal variables or mechanisms affected the radicalization process.[249] Consequently, a theoretical model or explanation would be bolstered if one could establish that the proposed explanations or causal mechanisms were valid in the examined case(s). Given the lacuna of high quality data and small sample sizes, none of the empirical studies present generalizable causal mechanisms.

Still, many case studies, biographical profiles, articles and anecdotes offer examples of individual trajectories that may support the hypotheses. Examples of individual paths that debunk the hypotheses are equally easy to find. Many of these examples could fit within one model or author's conceptualization of deprivation, whereas they would not match the criteria offered in another. Take the example of Mohammed Atta. If one focuses on the economic aspect, he would not be considered to suffer from relative deprivation. If one's primary concern is alienation, Atta and his group of expatriate Arabs have been reported as alienated from their host societies.[250]

It is possible to find confirmatory evidence in support of just about any causal claim of "discontent". When retrospectively assessing the individual trajectories of terrorists, imprecise and vague conceptualizations of various grievances will make it easy to identify something that could potentially constitute a grievance, crisis, or anything that may function as a "cognitive opening". This form of causal "reverse-engineering" in search of evidence to support a hypothesized causal explanation is particularly prone to confirmation bias. Furthermore, it is also challenging to establish the direction of the causal effect. Was the

[249] Robert A. Pape and James K. Feldman, *Cutting the Fuse: The Explosion of Global Suicide Terrorism & How to Stop It* (Chicago: University of Chicago Press, 2010), pp. 63-65.
[250] Sageman 2004:96-98.

individual alienated or economically deprived before the radicalization process, or is it rather a part or a result of the process?

The link between "discontent" and radicalization has received considerable attention and has to some degree been accepted as an important factor in the literature.[251] This is also evident in the models proposed by various authors. A commonality across the models and hypotheses is a lack of consistency and/or precision as to what exactly is meant by alienation, deprivation, discrimination, exclusion, identity issues and other experiences and grievances, and how this can be weighted in relation to other causal factors or explanations. Stretching the concepts to be able to fit all the plausible sources of radicalization is detrimental to the explanatory power of the models and hypotheses. Nor does it allow for rigorous empirical testing.

The grievances presented in the literature are evidently present in the societies that experience terrorism, but it remains somewhat unclear how and to what degree they affect the radicalization process. Intuitively, it makes perfect sense that some form of discontent must fuel the decision to participate in violent activism. When assessing the available evidence, it also seems plausible that it does have a causal function. It appears to function as a trivial *necessary* but *not sufficient* condition or cause[252] - common among millions, yet an integral part of the violent radicalization of a few.[253]

When trying to explain why only a few of the discontented turn to violence, it becomes clear that other factors are working in conjunction with the various crises, grievances or other sources of disaffection. To explain violent radicalization, we must also look to the other two important categories of contextual factors highlighted in the scholarship: The socio-psychological mechanisms present in group processes and the influence and impact of ideology on behavior.

[251] Egerton 2010:3-10. See for example Peter Neumann, "Joining al-Qaeda: Jihadist Recruitment in Europe", *Adelphi Paper 399* (London: The International Institute for Strategic Studies, 2008), pp.43-44, Tore Bjørgo (ed.), *Root Causes of Terrorism: Myths, reality and Ways Forward* (Abingdon: Routledge, 2005), p. 260, King and Taylor 2011, Dalgaard-Nielsen 2010:799-806.
[252] James Mahoney, Erin Kimball, Kendra L. Koivu, "The Logic of Historical Explanations in the Social Sciences", *Comparative Political Studies*, 1 (2009), p. 119.
[253] Although trivial, issues that breed discontent among a large portion of a population may obviously result in a much larger pool of possible recruits, providing fertile ground for the narratives espoused by jihadi militants.

3.2 Group mechanisms and ideology in radicalization models and theories

Many scholars postulate that social mechanisms found within group processes are important explanatory factors in the radicalization process. The explanatory models differ on the relative importance of various factors, on what particular socio-psychological mechanisms may generate violent radicalization, and in what manner. Scholars offer numerous variants of causal mechanisms that purportedly explain how and why an individual may turn violent. Among the proposed mechanisms are socio-psychological processes such as peer pressure, group-think, socialization, the forging of group identity, and other explanations linking the individuals, groups, and the context in which they are found. Similarly, the adoption of radical ideology or religion is, to various degrees and in various functions, hypothesized to play an important role in the radicalization process. To what degree ideology[254] is important, at what stage it becomes important, and how it facilitates the turn to violence is also disputed.

The question of the impact of both of these "categories" of causal explanations raises the question of how their effect or function may be evaluated or measured. Considering that they are both present in the group setting and possibly are mutually reinforcing[255], it is also a question of whether their causal consequences can be empirically separated. The factors or variables of interest are also often of an intangible, abstract and fluctuating nature, their effect only visible through change over time.

A precise and convincing explanation of the effects of these proposed causes of violence therefore requires unbiased and detailed data. Verification of such effects often rests upon interpretations of empirical "clues" or observable empirical manifestations or indicators of the unobservable mental processes or mechanisms that are thought to be responsible for a change

[254] Ideology, in this context, refers to the merger of religion and salafi-jihadi narratives and ideas that may legitimize, inspire, guide, or in other ways influence the adoption of violent means. Some scholars argue that the global salafi-jihadi narrative functions as a religious ideology, as it marries religious justifications and imperatives with the global jihadi understanding of the causes of Muslim suffering and humiliation, who to blame it on, how to fix it – and offering the violent antidote to this suffering.
See for example Quintan Wiktorowicz, "Anatomy of the Salafi Movement", *Studies in Conflict &* Terrorism, 3 (2006), pp. 207-239; Assaf Moghadam "The Salafi-Jihad as a Religious Ideology", *CTC Sentinel,* 3 (February 2008), Combating Terrorism Center, West Point, pp. 14-16; David Cook, **"**Islamism and Jihadism: The Transformation of Classical Notions of Jihad into an Ideology of Terrorism", *Totalitarian Movements and Political Religions,* 2 (2009), pp. 177-187.

[255] Hypothetically, the various group mechanisms may cause increased ideological fervor, but strong ideological commitment or fervor may also lead one to seek membership in a group in the first place.

in behavior.[256] These retrospective examinations are fraught with potential sources of error and bias – from the collection and evaluation of the "facts" to the subsequent interpretation, assessment or measurement on which inferences are drawn. Due to the paucity of quality data within the field of terrorism research, addressing, avoiding, and acknowledging the limitations caused by these pitfalls are particularly important for scholars aiming to illuminate or explain causal relationships through empirical analysis.

The following section will present the relevant parts of prominent models and hypotheses, and assess whether the empirical scholarship on the causes of global jihadi terrorism offers ample empirical evidence to support the alleged causal impact of within-group mechanisms and ideology put forward in the literature.

3.2.1 Modeled radicalization: The hypothesized impact of group mechanism and ideas

The radicalizing "bunch of guys" and tailored-made "framing"

One of the fiercest proponents of the causal importance of group, Marc Sageman, argues that his middle-range analysis captures

> (…) how they evolve into terrorists; how they interact with others (terrorists and nonterrorists); how they join terrorist groups; how they become motivated to commit their atrocities; how they are influenced by ideas; and how they follow orders from far-away leaders. (…) To answer the question "How do people become terrorists?" we need to look at processes, especially the relationships between individuals and their environment. (…) [P]rocesses of interaction in context: Radicalization, mobilization, motivation, and perhaps, separation.[257]

His model of violent radicalization, known as the "bunch-of-guys"-theory, is built upon the proposition that it is within these self-radicalizing, tight-knit groups that the inter-group dynamics, in conjunction with a varying influence of grievances and ideology, generate the acceptance and intent to use violence. He argues that the threat from jihadi terrorism now

[256] To what degree various qualitative "clues" may support an explanation is very often a matter of interpretation. Can, for example, the degree of commitment to the jihadi ideology be measured by observable outward signs of religiosity? Or, is it possible to gauge the impact of, for example, peer-pressure without access to a granular portrayal of the inner dynamics of a group?
[257] Sageman 2008:34-35.

mainly consists of these "homegrown" groups of friends,[258] the emergence of which precedes other proposed causes of violence such as ideology.

Sageman, employing a Social Network Analysis[259] (SNA) approach, argues that his data illustrate how the formation of *cliques* is vital for the turn to violence.[260] Through friendships, kinship, family relations and other social ties, potential jihadists for various reasons seek out companionship among like-minded individuals. These small groups of friends may have different profiles; some of the groups of friends may be poor, uneducated and religiously ignorant, while other groups may be constituted by seemingly successful and devout individuals.[261] These groups or cliques are to various degrees connected to other groups or to the international network of global salafi jihadists. Detailed information about such mechanisms is rare, but referring to wire-taps of terrorist cells that caught the jihadists speaking without restriction, Sageman found that the

> [C]onversations (…) shaped the social life of clique members by altering individual and collective perspectives, transforming social ties, collectively processing events and generating specific meanings and interpretations, and forging commitments to the clique and the jihad.[262]

[258] His propositions sparked a considerable debate on the nature of the global jihadi threat. The debate is centered on a difference in opinion of how influential the al-Qaeda Central leadership, situated in the Afghanistan-Pakistan border region, is in recruiting and directing attacks against the West. Sageman argues that the threat from "homegrown" terrorists has eclipsed that of centrally planned and guided attacks. This also has implications on how violent radicalization takes place. See for example Marc Sageman and Bruce Hoffman, "The Reality of Grass-Roots Terrorism", *Foreign Affairs,* 4, 2008, pp. 163-166; Elaine Sciolino and Eric Schmitt, "A Not Very Private Feud Over Terrorism", *The New York Times,* June 8, 2008. Available at http://www.nytimes.com/2008/06/08/weekinreview/08sciolino.html?ref=&_r=0.

[259] In his presentation of SNA, the author's main argument is that it is within these large de-centralized networks of self-starting independent or semi-independent groups that individuals are recruited and radicalized to the point of turning to violence. With exception of explaining the process of bottom-up recruitment, it remains somewhat unclear how the structure of the network itself impact the processes within the small groups. In a later chapter, the author acknowledges that these social processes and interactions are to complex and fluid to be captured in the static framework offered by SNA. See Sageman 2004:137-139, and Sageman 2011:121. For a general presentation on the utility of SNA in terrorism research, see Arie Perliger and Ami Pedahzur, "Social network analysis in the study of terrorism and political violence", *PS: Political Science & Politics,* 1 (2011), pp. 45-50.

[260] Once again, it must be noted that the enlarged database employed in *Leaderless Jihad,* though allegedly built on open sources, has not been made public. The empirical foundation of his proposed causal relationships is therefore very opaque. In *Understanding Terror Networks,* the names of those included in his samples are provided. *Leaderless Jihad* offers none of these.

[261] Sageman 2004:152-153.

[262] Sageman 2004:156-157

Through this gradual process, the alienated individual forms strong friendships, with increased loyalty, "mutual devotion, self-sacrifice, and intimacy."[263] The perceived sacred nature of their collective duty to sacrifice themselves for the sake of God and the global Ummah increases the value of these friendships, may lessen the value of outside friendships, and perhaps contributes to the isolation of the clique. This again may further strengthen the group's solidarity, cohesion and social identity.

The sum of this collective radicalization, according to Sageman, is the solution to the so-called free-rider problem: In simple terms, this problem questions why any rational person would risk injury, persecution or death in a struggle for a greater good, if others are willing to take on such risks on your behalf.[264] In Sageman's model, one's rational inclination to free-ride is stymied by the intensifying processes that gradually lead to an acceptance of violent means:

> The clique solve the rationalist paradox: They are the social mechanism that put pressure on perspective participants to join, defines a certain social reality for the ever more intimate friends, and facilitates the development of a shared collective social identity and strong emotional feeling for the in-group.[265]

The intense strengthening of in-group bonds makes the individual identify to such a degree that the self-benefit is engulfed by group considerations. The giving up of self-interest becomes a part of the merged group identity and provides a sharp contrast to the perceived enemy: In the group, the regards to self-interest is perceived as Western, the absolute opposite of which is martyrdom - total devotion to the cause.[266] According to Sageman, the radicalizing dynamic within these cells feeds off of a lack of action by the majority – increasing disillusionment over the lacking ability to prevent moral violations and resentment towards those that "just talk, talk, talk."[267]

---

[263] Sageman 2004:155.
[264] The notion that ideas, beliefs and socialization processes can alter the individual's perception or even concern for his own benefits or self-interest apparently contradict rational choice theories that posits that all behavior is guided by self-interest. Whether altruism can be accommodated in rational-choice models is contested. Of course, one can argue that the substantial otherworldly rewards awaiting the religious terrorist offer a rational explanation of apparently irrational self-sacrifice. This would imply that all global jihadi terrorists are primarily driven by ideological commitment. For a discussion on various forms of rational choice theory in relation to conflict, see for example Jolles Demmers, *Theories of Violent Conflict: An Introduction* (Abingdon: Routledge, 2012), pp. 100-115.
[265] Sageman 2004:154.
[266] Sageman 2008:91-91.
[267] Sageman 2011:123.

His inferential arguments are only occasionally linked to empirical descriptions of the purported impact of group mechanisms on behavior. As Sageman himself notes, the processes that are hypothesized to cause a change in behavior are not well-documented. Empirical verification of such processes would require close observation of these groups over an extended period of time.[268] While he presents a thorough and measured reflection on the inherent biases and weaknesses of various open source data (and offers his justification for ranking their quality)[269], the lack of citations severely diminishes the validity of his analysis. Without reference to the exact type of source used to empirically underpin the causal argument, it is impossible to assess if the source is of adequate detail and quality to support the explanation.[270] His findings and conclusions, although compelling and plausible, must therefore be regarded as hypothesized explanations based on secondary sources and selected anecdotal evidence of unknown quality.[271]

Arguing along the same lines as Sageman, Clark McCauley and Sophia Moskalenko hypothesize that radicalization is fueled by mechanisms found within a group setting. Anchored in insights gleaned from socio-psychological experiments and empirical findings from earlier studies of terrorist groups, the authors argue that individuals join these groups through pre-existing social connections, and grow increasingly attached to the other group members. After joining the group, "love for friends and comrades in the group is likely to increase further as common goals and common threats increase group cohesion."[272] The inner dynamics of the clique may also lead to conformity in opinion and a shift towards more extreme positions. McCauley and Moskalenko refer to experimental studies that show how individuals have a tendency to adjust their position to fit in with that favored by the group. As opinions come with social values, those that espouse a message

> (…) more extreme than average in the group-favored direction—the direction favored by most individuals before discussion—are more admired. They are seen as more devoted to the group, more able—in sum, as better people. This extra status translates

[268] Sageman 2004:154.
[269] He also notes that his sample is probably not representative of the population of global jihadi terrorists a whole. Rather than random or informed selection, the individuals are included based on the availability of information. See the discussion on sources in Sageman 2004:64-68.
[270] As an example, the evidential basis of the importance of social bonds is sourced from a selection of earlier studies of social movements, from various other contexts. Sageman 2004:125-135.
[271] In his defence, Sageman states that «any findings and interpretations base don the data are necessarily suggestive hypotheses», although this acknowledgment is base don the lack of control group, and not the lack of documentation. Sageman 2004:68.
[272] McCauley and Moskalenko 2008:421.

> into more influence and less change during group discussion, whereas individuals less extreme than average in the group-favored direction have less influence and change more.[273]

McCauley and Moskalenko hypothesize that the face-to-face nature of these small groups multiplies the social costs of not adhering to the group's preferred solution. They also argue that isolation may lead to conformity of arguments that actually make the violent solution seem as a rational choice to the individual radical.[274]

While the explanatory power of these mechanisms has been demonstrated in studies of different terrorist groups found in a variety of contexts, the only empirical study of global jihadi terrorism cited in their article is Sageman's *Understanding Terror Networks.*[275] It is also unclear to what degree insights from socio-psychological experiments conducted in controlled environments may apply to highly complex real world scenarios rife with contextual factors.

Several of the other radicalization models offer similar explanations of "something" happening within these groups. According to Wiktorowicz, "socialization" is crucial, as individuals "need to be convinced that the cause is worth the risks and costs of belonging"[276] to the radical group. This gradual process of socialization is often ignited by spending time with friends or acquaintances that are already members, gradually leading to more contact with the group. Members describe how the increased interaction leads to a growing pressure, but also motivation to act, as the recruit is surrounded by others that serve as examples of "'real' Muslims" taking action in defense of their faith.[277]

Wiktorowicz argue that the activists consciously tailor their arguments to fit in with the personal grievances and issues of the aspiring recruits - recruits who in turn repeat the process

[273] McCauley and Moskalenko 2008:422. This corresponds with Nesser's suggestion that the leaders ("entrepreneurs") of these groups are often ideologically driven, and therefore may exhort a radical influence on members that may join groups due to, for example, personal grievances or identity issues ("misfits and drifters"). In this way, ideology may be important as a motivating factor because of the leaders' influence over the group. See Nesser 2011b:531-532.
[274] McCauley and Moskalenko 2008:417 and 422.
[275] McCauley and Moskalenko 2008:43, footnote 26.
[276] Wiktorowicz 2004:7.
[277] Quintan Wiktorowicz, *Radical Islam rising: Muslim extremism in the West* (Rowman & Littlefield Publishers, 2005), p. 94.

when they become activists seeking out prospective members.[278] In contrast to Sageman, Wiktorowicz posits that this process of socialization is reliant upon the prior occurrence of two phenomena; religious seeking and frame alignment. The religious seeking is a result of the "cognitive opening" brought on by some form of discontent, and may be "self-initiated religious seeking" or fostered and "guided religious seeking,"

> especially where the cognitive opening is prompted by movement outreach. In some cases, this may directly incorporate the individual into movement activities and socialization. In other instances, a movement member may help a potential joiner "shop around" and sample different religious products while subtly guiding him or her toward the conclusion that the movement ideology is the most reasonable and appealing choice.[279]

At this stage, Wiktorowicz argues, group members make a conscious effort to ensure that the ideology they espouse and present to the seeker resonates with his personal experiences, focusing on "local, immediate concerns or emotional issues." If the effort to achieve "frame alignment" is successful, the "deeper socialization process" can start.[280]

Through his study of the Al-Muhajiroun (AM) movement, Wiktorowicz found that those who approached (or were approached by) AM were seldom religiously knowledgeable, but tied their sense of identity to being Muslim. The lack of knowledge made the seeker less able to fend off the group's simplistic ideology, which gradually came to be internalized. At this stage, the socialization takes the form of indoctrination.[281] Facilitated by the careful socialization process, Wiktorowicz argues that the "commitment to activism is secured and reinforced through deeper member-only activities and an increasingly heightened sense of group identity and solidarity."[282] The survey suggests that ideology, at least from the point that the individual engages with the movement, is a crucial component in the radicalization process. The adoption and internalization of the ideological tenets functions to alter the cost-benefit analysis of the members. Rather than being an example of the "irrationality of

[278] Wiktorowicz 2005:94-96.
[279] Wiktorowicz 2004:9.
[280] Wiktorowicz 2004:10. At outreach events, the activists would address local issues facing Muslims in Britain, but also point to the atrocities committed against Muslims around the world, for example by displaying pictures of dismembered children from the conflicts in Chechnya, Palestine and other places. See pp. 14-20.
[281] Omar Bakri Mohammed, the movement's leader, stated that every member "is an identical copy of the way I think, and he has my adopted culture [ideology], and he teaches it to the people." See Quintan Wiktorowicz and Karl Kaltenthaler, "The Rationality of Radical Islam", *Political Science Quarterly*, 2 (2006), p. 303.
[282] Wiktorowicz 2004:20-23.

zealotry"[283], it is argued that it is perfectly rational for the indoctrinated member to accept the high costs associated with membership. The alternative, eternal damnation and suffering, is unbearable. Fervent support and encouragement for jihad is paramount in the AM ideology, thereby linking the adoption of radical ideas, via an alteration of the rational self-interest, to active support for radical behavior.[284]

While Wiktorowicz' interpretative study and survey is a rare example of participant observation and in-depth interviews of members, it cannot shed light on what separates the ideological radicals from the violent radicals.[285] As acknowledged by the author, it also fails to answer what separates those who complete the socialization process from those who defect; however, he hypothesizes that prior knowledge and understanding of Islam might function as a bulwark against radicalization.[286] Despite these shortcomings, the survey illustrates how the powerful combination of personal discontent, ideology and group processes impacts some individuals.

The "NYPD"-model: Ideology as the principal catalyst

Silber and Bhatt's empirically derived "NYPD"-model acknowledges the importance of "social networks made up of friends and family, religious literature and the Internet"[287], but the model distinguishes itself by the singling out of ideology as an absolutely vital component at an early stage of their sequential radicalization process. It is emphasized that the "cognitive opening" that precedes the group process results in religious seeking, where the potential

[283] Wiktorowicz and Kaltenthaler 2006:311.
[284] Wiktorowicz and Kaltenthaler 2006:308-319. This rationalist approach assumes that the religious seeking is a result of the individual's need to relieve the discontent that resulted in the "cognitive opening" in the first place. For a critique of the application of Western rationalist thought to Islamic fundamentalism, see Roxane Euben, "Projections and Refractions: Islamic Fundamentalism and Modern Rationalist Discourse", in *Enemy in the Mirror*, (Princeton: Princeton University Press, 1999), pp. 20-42.
[285] Peter Neumann and Brooke Rogers' report to the European Commission, building on Wiktorowicz "framing theory-framework" and employing similar types of data, corroborated his findings. See Peter Neumann and Brooke Rogers, "Recruitment and Mobilisation for the Islamist Militant Movement in Europe", report prepared for the European Commission, December, 2007, pp. 17-18. Available at http://ec.europa.eu/home-affairs/doc_centre/terrorism/docs/ec_radicalisation_study_on_mobilisation_tactics_en.pdf
[286] Wiktorowicz 2004:24. To investigate what separates those that radicalize from non-joiners or defectors, the author wanted to construct a control sample of relevant individuals. This was not feasible, due to the difficulty of identifying such individuals. As a substitute to the control sample, a questionnaire was distributed among Muslims in London. Due to the sensitive subject matter, few were willing to participate, resulting in a unsystematic and non-randomized sampling procedure guided by convenience. Consequently, the aims of the study, as the author notes, "are more modest that sweeping generalizability." See Wiktorowicz 2005:30-34.
[287] Silber and Bhatt 2007:30.

terrorist is "slowly migrating away from their former identity—an identity that now is re-defined by Salafi philosophy, ideology, and values."[288] The importance of ideology in this model is evident when the authors offer a clear answer to the puzzle presented at the start of the document: "What motivates young men and women, born or living in the West, to carry out 'autonomous jihad' via acts of terrorism against their host countries?"[289] According to the authors,

> [t]he answer is ideology. Ideology is the bedrock and catalyst for radicalization. It defines the conflict, guides movements, identifies the issues, drives recruitment, and is the basis for action.[290]

This rather assertive claim is based on the "common pathways" and "characteristics" found across the groups and plots included in their study.[291] The authors argue that "there is a remarkable consistency in the behaviors and trajectory of each of the plots across all the stages" and that this "consistency provides a tool for predictability."[292] They claim to have identified indicators that offer the possibility of metering where the potential terrorist is situated along the sequential path leading to terrorism. For example, behavioral indicators of the second stage in the process, "Self-identification", include "Progression or Gravitation Towards Salafi Islam" and "Regular Attendance at a Salafi mosque."[293] At this stage, the potential terrorists are subjected to ideological influences, through existing networks, which can take place just about anywhere:

> [A]n individual who goes searching for answers will invariably be exposed to a plethora of Salafi/Wahhabi interpretations of Islam. Most often the vehicles for these exposures include family ties or old friendships, social networks, religious movements like the Tablighi Jamaat, political movements like the Muslim Brotherhood, or

[288] Silber and Bhatt 2007:30.
[289] Silber and Bhatt 2007:16.
[290] Silber and Bhatt 2007:16. This statement is easily refuted if one interprets this claim as a deterministic link leading from adoption of the ideology to terrorism. Empirically derived causal models such as this one usually make less assertive claims of causation, especially when the empirical material is in limited supply and of questionable quality.
[291] Silber and Bhatt 2007:15.
[292] Silber and Bhatt 2007:82.
[293] Silber and Bhatt 2007:31. In a case study of the convicted Australian terrorist and convert Jack Roche, Anne Aly and Lason-Leigh Striegher applied the "NYPD-framework" to assess the role of religion in Roche's path to terrorism. They concluded that religion was not the principal factor in Roche's radicalization. Aly and Striegher argues that a chance encounter with a jihadist group, a gradual withdrawal from more "moderate" Islam, and "acknowledgement from his new social group" were better explanations. See Aly and Striegher 2012:849-862.

> extremist-like discussions in halal butcher shops, cafes, gyms, student associations, study groups, non-governmental organizations and, most importantly, the Internet.[294]

While these characteristics might fit most of the individuals included in their sample, the model fails to explain why the innumerable others who are exposed to similar influences or exhibit such behavior do not become terrorists. If the model is to be used as a predictive tool, law enforcement personnel are presented with a gigantic metaphorical haystack of potential terrorists that might not even contain any needles. The model has been criticized for over-generalizing the findings, causing stigmatization and unjust suspicion towards those that fit the characteristics presented in the model.[295]

On a methodological note, the model suffers from shortcomings that provide reasons to be cautious of the conclusions, many of which are common in the study of terrorism. These include a limited amount of detailed data that may reveal the precise causal pathways, grievances and motivations of the individual in the group context.[296] Further, by only looking at plots where the individuals turned violent (or at least showed violent intentions), the researchers are guilty of "selecting on the outcome variable."[297] When aiming to explain the outcome within a small number of cases (which is most often the case when studying terrorism), this praxis is commonly used and accepted[298], as "it does not make sense to select

[294] Silber and Bhatt 2007:30. This statement illustrate that otherwise benign social structures serve to facilitate the dissemination of ideology that Silber and Bhatt identify as the main driver of violent radicalization.
[295] See for example Faiza Patel, "Rethinking Radicalization", published by Brennan Center for Justice at New York University School of Law (March 8, 2011). Available at https://www.brennancenter.org/publication/rethinking-radicalization.
[296] Their sample is small and their data consist of press reports and interviews with "law enforcement, intelligence officials and academics," in itself reasons to consider that their conclusions may suffer from various forms of bias. There are reasons to doubt that their data provide the foundation for gauging the importance of ideology in the radicalization processes included in their sample. See Silber and Bhatt 2007:15.
[297] Social science scholars disagree as to whether this sampling procedure is appropriate when attempting to prove causal relationships. Veldhuis and Staun uses this argument to criticize authors of sequential models such as the "NYPD"-model. Among those that adhere to correlational/statistical methods, usually applied when studying a large number of cases, this procedure amounts to selection bias. If these "statistical" criteria were to be applied to the study of terrorism, most studies would be regarded as methodologically flawed. Within terrorism research, the universe of cases available for study is small and most cases are selected exactly because they have produced the outcome of interest, namely terrorism. See Tinka Veldhuis and Jørgen Staun, "Islamist Radicalisation: A Root Cause Model", Netherlands Institute of International Relations Clingendael, October, 2009, pp. 17-18. Available at http://www.dcism.dk/graphics/_IO_indsatsomraader/Religion_og_social_konflikt_og_Mellemosten/Islamist%20Radicalisation.Veldhuis%20and%20Staun.pdf.
[298] For an example of a careful and measured utilization of this technique, and a discussion on the potential sources of bias often associated with micro-level terrorism data, see Nesser 2011b:33-36 and 41-53.

cases without regard for their value on the outcome."[299] If the authors are only aiming to show that, for example, exposure to jihadi-salafi ideology was necessary for terrorism to occur *within* the examined cases, the selection of cases where terrorism occurred makes perfect sense. Looking at cases where terrorism did not occur will not prove or disprove such a proposition, as a lack of or presence of the same cause in a "non-case" will not tell us whether or not it is a necessary cause in the specific case(s) under study.

If, however, they aim to show that the presence of one or more causes are sufficient (as the authors claim to do) for terrorism to occur, it will not suffice to only examine cases with a violent outcome. Such cases will not reveal whether the proposed causes can be present without causing terrorism.[300] When attempting to reveal causal explanations or relationships that also qualify outside of the cases under study, it is generally acknowledged that the inclusion of "negative" or counterfactual cases is important to address challenges to one's inferences, and thereby increase the leverage of the hypothesized causal relationships.[301] The inclusion of such cases will shed light on whether the causes thought to explain the phenomenon are also present outside of the "positive" cases, and thereby strengthen or weaken the proposed causal relationships. However, in terrorism research, the potential number of cases of "non-terrorism" is dauntingly high, and may not even be relevant to the phenomenon one attempts to explain. Identifying a relevant body of "negative" cases is therefore challenging. The authors invoke the causal leverage and predictive "promises" of quantitative methodology, but fail to adhere to the principles and logic that such inquiry is built upon.

As illustrated above, the explanatory models to various degrees portray how within-group processes and ideology can have causal impact in radicalization processes. Still, none of the models offer comprehensive causal explanations that are based on both reliable and relevant empirical footings *and* robust methodology that allows for generalizing the findings to other cases or contexts. To elucidate the potential impact of the proposed causal factors and

[299] James Mahoney and Gary Goertz, "A tale of two cultures: Contrasting quantitative and qualitative research", *Political Analysis*, 3 (2006): 239-240.
[300] For a defense of careful selection on the dependent or outcome variable, see for example Douglas Dion, "Evidence and Inference in the Comparative Case Study", *Comparative Politics*, January, 1998, pp. 127-145.
[301] As stated by Levy, "[w]e could learn a lot about the causes of World War I, for example, by analyzing why the numerous crises in the decade before 1914 did not lead to a general European war." See Jack S. Levy "Case Studies: Types, Designs, and logic of Inference", *Conflict Management and Peace Science*, 1 (2008), pp. 7, and 8-15.

mechanisms, we must turn to the evidence generated in empirical studies that claim to offer insights on these issues.

3.2.1 Between speculation and facts: The impact of group mechanisms and ideology

Empirical insights: Different types, different causes, different paths?

Within the empirically-based literature on the causes of violent radicalization, there are some examples of scholarship which offer more than speculative descriptive arguments and anecdotal evidence. Bartlett and Miller's comparative study includes "control groups" of non-violent radicals (and non-radicals) which function to test whether the "'permissive factors' commonly suggested by the literature to correlate with violent radicalization also obtain for a much broader cohort of individuals who are not terrorists."[302] Their study indicated that these proposed factors, on their own, could not explain violent radicalization. Looking to identify other causes or mechanisms to explain the turn to violence, the authors point to social processes that may offer explanations as to why some radicals became violent: peer pressure, status and internal code of honor.

Within the terrorist cells studied, Bartlett and Miller claim to have found examples of escalatory dynamics such as peer pressure and competition for status. Referring to insights from anthropology and social psychology, the authors posit that the in-group competition and pressure feed a potentially vicious spiral of gradually more radical positions:

> The power of peer pressure in such settings is considerable. If defiance or radicalization is tied to status, individuals will tend to compete with each other for status, and if status is equated with defiance or violence, there is a risk of spiraling into one-upmanship.[303]

They further observed that in-group status was often tied to previous experience with violence. Former foreign fighters were held in particularly high esteem. Those regarded as

[302] Bartlett and Miller 2012:2. The "permissive factors" roughly corresponds with those presented in the section on "Discontent".
[303] Bartlett and Miller 2012:16.

radical in both thought and behavior accrued status accordingly: "[T]he more radical, the higher the standing in the group."[304] According to one of the experts interviewed for the study, the leaders of the cells were often "slightly older, always charismatic, and with a smattering of Arabic."[305]

Their analysis and comparison, though extensive, transparent and methodologically stringent, suffers from the same limitations to inference as other studies of terror cells or terrorists that rely on public and secondary sources rather than interviews or other primary sources. To study the *violent radicals*, and create the individual profiles and generate information on the inner dynamics of the cells, they relied on press reports, court transcripts and interviews with persons acquainted with the terrorists.[306]

Bartlett and Miller's observations on the importance of the cell leaders are mirrored in evidence presented by other scholars. The leaders, often with experience from training camps or "classic jihad" fronts such as Afghanistan, Bosnia or Chechnya, are pivotal in the group process, but also serve to amplify the relative importance of ideology. Thought to be more ideologically aware and committed than the average group member, the leaders use their influence over the group to relay this message, and thereby guide the formation of group identity and motivations.

Nesser's typology: Multiple "types" and multiple pathways

Petter Nesser, in his "tentative typology" of European jihadists, finds that the clique leaders are

> […] critical for terrorist cells to coalesce and go operational. They proactively connect with jihadi networks, and they proactively recruit, socialize and train their cadre. […] The entrepreneurs are charismatic religious and political activists possessing a strong sense of justice. […] They are not militants for their own sake, it seems, but out of

[304] Bartlett and Miller 2012:15.
[305] Bartlett and Miller 2012:15. Several scholars note the vital role of the leader, or "political entrepreneur". For a discussion of the role of charismatic leadership in terrorist groups, and its application in scholarly studies, see David C. Hofmann and Lorne L. Dawson, "The Neglected Role of Charismatic Authority in the Study of Terrorist Groups and Radicalization", *Studies in Conflict & Terrorism*, 4 (2014), pp. 348-368.
[306] The authors readily acknowledge the limitations of the study. Though attempting to interview to the convicted terrorists, this proved impossible. Their sample of 61 terrorists was drawn from a selection of the largest convicted cells from plots in Canada, the UK, the Netherlands, France, and Denmark. See Bartlett and Miller 2012:3-6.

> what they consider a religious duty to defend others. […] Entrepreneurs embrace jihadism gradually through intellectual processes, activism, idealism, and a call for social and political justice. Frustrated with political affairs and poor prospects of having much influence through non-violent means, the entrepreneurs will seek alternative ways to making a difference. They might then be attracted to the action-oriented religious interpretations disseminated by extremists and militants.[307]

While the members of the cell may be motivated for a plurality of reasons, these observations indicate that the leaders utilize their standing and influence to proselytize the jihadi narrative and justification for violence. The degree to which this ideological framework causes the violence is, of course, hard to gauge.[308] Still, it can be assumed that their relative dominance within the groups serve to steer the various group mechanisms in a more radical and action-oriented direction.

Nesser's typology is an important corrective to simplistic models that portray singular and sequential paths to terrorism. The study documents that the explanatory power of various causes or motivational factors (or a combination) varies between the different individuals, but somewhat systematically. The leaders (*entrepreneurs*), and their seconds-in-command (*protégés*), were generally motivated by a combination of political grievances and jihadi ideology. The *drifters* and *misfits* were less driven by ideological conviction. Nesser found that they often found themselves as part of cells due to loyalty and commitment to friends and relatives, or by chance encounters. They were also drawn by the personal and social "rewards" tied to the group or milieu– a sense of redemption, adventure, rebellion, belonging and status. The study illustrates that ideology is not necessarily the primary driver for all of those who join, but it accrues high *relative* importance because of the influence the entrepreneur and protégé exert over the other members.[309]

Regarding the impact of group processes and social mechanisms on the radicalization process, the author acknowledges that we lack a complete understanding:

---

[307] Nesser 2010:92-93. Nesser found that the leader often had a protégé that also showed high levels of ideological commitment, but seemed to be equally motivated by loyalty and admiration for the leader. He found no examples of leaders or protégés that showed remorse or turned informant after capture, interpreted as an indication of their commitment to the cause.

[308] Terrorists showing a lack of ideological knowledge or few outward signs of religiosity may still be fiercely driven by ideological or religious convictions – and vice versa.

[309] See Nesser 2011b:525-532.

> [There] were clearly processes going on among the terrorists that could not be investigated properly […]. [M]ore research is needed on the micro-dynamics of recruitment processes; the means and methods used by recruiters to seduce and win over recruits; and the social bonds and social practices keeping cells together and facilitating violent radicalization.[310]

The primary function of Nesser's study is to illuminate the cases under study in light of relevant variables drawn from the existing literature, the systematic individual patterns he presents provide a tool for better understanding the inner dynamics of other cases of violent radicalization.

Findings from the Arabian Peninsula: The evolution of the Saudi al-Qaida branch

Thomas Hegghammer's study of Saudi members of al-Qaeda portrays the importance of prior connections in recruitment, but also illustrates how the group processes influenced the radicalization of those who joined groups or travelled to the training camps in Afghanistan. In the pre-9/11 context, most recruits intended to help and defend Muslims in classical jihad fronts, such as Chechnya and Afghanistan, but later found that al-Qaeda had shifted focus to the "far enemy". Those who travelled, Hegghammer notes, did so for myriad different reasons, but usually left with "friends or relatives."[311] Judging from the available sources, he argues that "[g]roup dynamics, such as peer pressure, bidding games, and intra-group affection were very important in driving the radicalization process and preventing desertions. For some, social processes preceded ideological ones (…)."[312] These training camp alumni would form the backbone and function as "nodes" in the post-9/11 jihadi network that instigated a campaign against international targets inside the Kingdom of Saudi Arabia.

The characteristics of the Saudi al-Qaida branch illustrate how existing relationships served as tools to recruit, convince and sometimes lure potential recruits into the organization. Of those recruits who had no previous jihadi experiences[313], most were recruited through family ties or friendship with those who were already jihad veterans or members. Face-to-face persuasion

[310] Nesser 2011b:544.
[311] Hegghammer 2010:142.
[312] Hegghammer 2010:133-142. Quote from p. 142.
[313] Hegghammer notes that more than half of the sample had experience from Afghanistan or other jihadi fronts. Hegghammer 2010:189.

was a common point of entry.[314] Many recruits stated that loyalty towards their friends and a quest for comradeship were motivating factors, bonds that were strengthened as the clandestine organization came under increasing harassment and persecution by the authorities.[315]

Hegghammer's data set also shows how many of the recruits were unwittingly drawn into the jihad by helping friends and acquaintances already implicated and on the run, and thereby becoming fugitives themselves. Familiar with the often brutal methods employed by Saudi authorities, many would rather join than be caught.[316] This form of gradual radicalization, coined "the slippery slope"-mechanism by McCauley and Moskalenko[317], could lead an individual from minor tasks such as providing shelter, to becoming an active member. Once inside the group, the various socio-psychological mechanisms described above could kick in and facilitate the transformation from friend, family member or acquaintance to violent activist.

Comparing his examination to Sageman's findings, Hegghammer argues that his data also show that group dynamics were often more important than ideology when explaining individual recruitment. Interestingly, he finds that "exposure to violence through training and combat was crucial to individual radicalization", and the best indicator of future involvement in terrorism.[318] Perhaps a direct result of mainly recruiting through the existing network of the Afghanistan veterans – and an indication of how this shared experience, socialization and comradeship cemented group loyalty and cohesion.

As noted by other scholars, individuals with experience from "classic jihad" or training camps earned the respect of others in the radical milieus, but they also brought established networks of militants into Western societies. These networks were utilized for recruitment purposes, using the established bonds to add personnel to the global jihad. Besides those who joined via prior social relations or chance encounters, what motivated recruits to seek combat experience

[314] Thomas Hegghammer, 2007:510-511.
[315] Hegghammer 2010:193-194. This form of outside threat and subsequent isolation, as argued by McCauley and Moskalenko, often serve to amplify the radicalizing group dynamics. See McCauley and Moskalenko 2008:423-424.
[316] Hegghammer 2010:196-198. In his dataset, Hegghammer does not find support for judging whether the recruitment pattern in Saudi Arabia was characterized by "bottom-up" self-recruitment, or an active "top-down" effort.
[317] See McCauley and Moskalenko 2008:419-420.
[318] Hegghammer 2010:236.

or training in the first place may perhaps be explained by grievances, deprivation, strong ideological commitment or "pull factors" such as adventurism or companionship.

At face value: Gauging motivation, and the lure of inferential excess

Concerning the impact of ideology, even if terrorists cloak their actions in jihadi rhetoric, it would require a fine-grained picture of the radicalization process to reveal what functions as the primary catalysts. Concerning ideology, as Sageman argues,

> There seems to be an assumption about terrorists that, once their minds are completely programmed by ideology, they cannot help but carry out their conscious program. As a psychiatrist, I am fully aware that people rationalize their past actions all the time. They are not always aware of their main motivation for doing things, but they do not lack for explanations. They often make them up on the fly or afterward when questioned about them. These post hoc justifications may not have much to do with the actual reasons for doing things. To evaluate the real role of ideology in terrorism, we need to see its use in the everyday life of terrorists, which is almost impossible to do. We would need to identify the future terrorists beforehand and witness their interaction. Even if this were possible, it would create difficult ethical dilemmas for social scientists.[319]

In his view, there is more evidence that portrays recruitment as the result of a prior relationship with other recruits, or plain chance encounters, than being a deliberate decision because of prior ideological commitment. In other words, it is just as likely that the ideological commitment occurred after joining the clique, varied from individual to individual, and evolved during the process. Sageman speculates that the utility of ideology is perhaps at its peak when the members of the clique attempt to make sense of the world from which they have grown increasingly isolated. The ideology functions as the framework that locates their grievances as part of a battle between good and evil, and serves to justify and

[319] Sageman 2008:85-86.

sanctify their will to address these by attacking those who are to blame. The group dynamics pave the way for the ideological commitment.[320]

Other scholars, sometimes in less comprehensive, detailed and systematic single-case and comparative studies from a variety of contexts also address the role of group processes and ideology in radicalization processes. At times in the form of anecdotal and descriptive narratives with a limited evidentiary foundation, these studies nevertheless point to information that corroborates on some of the observed patterns among global jihadi terrorists. Despite the lack of explicitly causative arguments - when conducted in a rigorous and transparent manner - descriptive narratives may still offer valuable insights into contingent but valid causal relationships within the examined cases. Indeed, the lack of detailed data suggests that explanatory modesty is probably the correct end point in most studies. Many of these studies also remark on the alleged causal impact of ideology[321], the relative importance and influence of leaders or "entrepreneurs",[322] the importance of prior relationships and networks in recruitment[323], the proposed violence-generating or promoting effect of small group dynamics[324], but also illustrate the vast plurality of causal paths resulting in militancy. Unfortunately, some scholarly studies lacking in methodological rigor still use procedures and data that are insufficient grounds upon which to build causal explanations.

Scott Kleinmann's study of 83 US "homegrown terrorists" serves as an example of such inferential excess. Kleinmann concluded that most of those identified in the sample radicalized in a group setting, stating that for non-converts, "group-level processes are both

[320] Sageman 2008:93-98. Whereas Sageman argue that ideological commitment grow as the clique become increasingly isolated and radical, Neumann and Rogers point out that the nature of the ideology itself (for example, by emphasizing that one must abstain from contact with infidels) may actually be a *cause* of the intensifying group processes, instead of a *consequence* of said processes. See Neumann and Rogers 2007:75.
[321] Daveed Gartenstein-Ross and Laura Grossman, *Homegrown Terrorists in the U.S. and U.K.: An Empirical Examination of the Radicalization Process,* report for the Foundation for Defense of Democracies (Washington, DC: FDD Press, 2009). Available at http://www.defenddemocracy.org/downloads/HomegrownTerrorists_USandUK.pdf.
[322] Shandon Harris-Hogan, "Australian neo-jihadist terrorism: Mapping the network and cell analysis using wiretap evidence", *Studies in Conflict & Terrorism*, 4 (2012), p. 307.
[323] This touch upon the debate on the general nature of recruitment processes. Is recruitment predominantly a result of active and networked "top-down" formation, or more spontaneous and self-igniting "bottom-up" processes? Most empirical data related to the proposed causes of terrorism indicate that both forms are present. Nesser argue that the "dismissal of an al-Qaida recruitment apparatus in Sageman (2004) appears too categorical, and is probably wrong." See Nesser 2011b:519; See also, Michael Taarnby Jensen, *Jihad in Denmark: An overview and analysis of Jihadi activity in Denmark*, DIIS Working Paper, no. 35 (2006), p. 58-61. Available at http://www.econstor.eu/bitstream/10419/84540/1/DIIS2006-35.pdf;
[324] See for example Malthaner 2012.

necessary and sufficient for radicalization."[325] Referring to "indications of group level radicalization", the study does not specify or explain *how* the group processes affected or caused the radicalization. Concerning the difference between converts and non-converts, he argued that individual "identity issues"[326] and mental illness were a significant factor in the radicalization of converts.[327] Although both conclusions are fully plausible, the evidentiary basis is limited, dubious, anecdotal or non-present.

Furthermore, Kleinmann coded the cases in his sample for the causal presence of "'individual-level, 'group-level' and 'mass level' factors and processes of radicalization", but failed to include explicit indicators, observable manifestations or parameters to guide this binary coding scheme. His sample, partly sourced from a list of 125 cases of "possible radicalization" identified in a prior report[328], was included based on the how much information was available. Drawn from a dataset that seemed to conflate foreign fighters, convicted terrorists and individuals who had not shown violent intent, the sample also included plots initiated by undercover agents in so-called "sting" operations.[329] Whether those implicated would have participated in plots or pursued their alleged violent intent is therefore a matter of dispute.[330] These are only some of several issues that undermine the findings. Although the author diligently lists the various deficiencies and sources of error which limit the validity and reliability of the study[331], he nonetheless offers findings and conclusions which require inferential leaps that the methodology and the cited evidence simply do not support. His sample is arguably not representative, nor are there any control groups that can shed light on whether the underlined mental illness or identity issues are spurious causal

[325] Scott Matthew Kleinmann, "Radicalization of homegrown Sunni militants in the United States: Comparing converts and non-converts", *Studies in Conflict & Terrorism*, 4 (2012), p. 290.
[326] Kleinmann 2012:279.
[327] Kleinmann 2012:287 This observation builds on anecdotes, and in some cases speculation. Moreover, the author rely on sources of varying, and sometimes unknown detail and quality. The study builds on data from a study authored by Gartenstein-Ross and Grossman, data which was not originally used for causal assesments. See Kleinmann 2012:281.
[328] Kleinmann 2012:281. The dataset in question was sources from Brian Michael Jenkins, "Would-Be Warriors: Incidents of Jihadist Terrorist Radicalization in the United States Since September 11, 2001," *RAND Occasional Paper* (June, 2010), p. vii. Available at http://www.rand.org/pubs/occasional papers/OP292/.
The included individuals were identified from a list provided in Bjelopera and Randols (2010) report to congress.
[329] Jenkins 2010:1-2; Bjelopera and Randol 2010:3.
[330] Thomas Hegghammer and Petter Nesser, "Assessing the Islamic State's Commitment to Attacking the West", *Perspectives on Terrorism*, 4 (2015), p. 19 (pdf version). Available at http://www.terrorismanalysts.com/pt/index.php/pot/article/view/440/html.
Hegghammer and Nesser noted that in their dataset, approximately half of the reported plots that originated from the US had some degree of undercover agent-involvement.
[331] Kleinmann 2012:281.

relationships - and perhaps equally present among individuals who share all other characteristics, barring implication in jihadi terrorism.

The scholarship is undoubtedly characterized by wide-ranging differences in regards to data, explanatory approach, methodology and rigor. A constant among most empirically based scholarship is the oft-mentioned role played by internet in the radicalization processes. What do we know about the impact of internet in relation to the causal effects of group processes and ideology?

3.2.2 Limitations, shortcomings and puzzles: Ideological and group process explanations

Although scholars try to paint as complete a picture as possible, there are several issues and challenges that shape and limit our knowledge of how group processes and ideology cause terrorism. While many can be addressed, some are seemingly permanent obstacles to robust inferential insights.

One obvious limitation to our understanding of both group mechanisms and the influence of ideology is their inherently immeasurable or indeterminable nature. While the best quality data or sources will give some grounds to judge their impact with a degree of confidence, terrorism is the end product of many unobservable individual and collective psychological processes. There are limits to what we can possibly know about what makes the terrorist "tick". Consequently, the assessment of causality rests on the author's qualified interpretation of patchy and ambiguous information gleaned from sources that are often subjective, prone to error or otherwise contaminated by various biases.[332] Even if the terrorists could be questioned face-to-face, one would have to ask whether their stated motives or convictions are truthful answers or rather rationalizations or justifications for acts spurred by less noble, ulterior motives.[333] Other potential "clues" would have to be consulted to maximize the validity of the explanation – sources which also require careful "vetting" and ranking of quality and reliability. Still, many of these individual- and group-level "clues" cannot be independently verified (or quantified) in any meaningful manner. In the end, many

[332] This includes the researcher's own prejudices or inclination to search for patterns or information that confirms preconceived notions, explanations or theories.
[333] For example, research has shown that the timing of such interviews will impact the answers. A larger time-span between act and interview may result in an increased tendency to justify one's actions by referring to collective grievances rather than personal motivations. See Paul Gill "Terrorist violence and the contextual, facilitative and causal qualities of group-based behaviors", *Aggression and Violent Behavior*, 6 (2012), p. 572.

explanations require an inferential leap of faith. Even the most meticulously researched studies are left wanting for more details as to what really goes on among the close-knit groups of individuals which often make up the cells or groups. Both at the individual and group level, processes could be driven by factors or forces never recorded for posterity to view or comprehend. Also, many terrorism incidents materialize by chance encounters or coincidence.[334]

Regarding the ideology thesis, the most obvious shortcoming is the inability to explain why only a miniscule portion of those exposed to the global jihadi narrative answer the call to pick up arms to attack the West. Those who espouse ideological indoctrination as a mono-causal explanatory factor must find a way to explain why people who are found in similar circumstances, with similar grievances, exposed to the same radical ideology (and perhaps show clear signs of ideological radicalization) nevertheless choose different paths. There are simply too many counterfactual examples to forcefully argue that ideology, on its own, can systematically explain terrorism. While there are examples of individuals who, at least superficially, are purely driven by ideological conviction, most cases defy such simplistic paths to violence. That being said, the empirical evidence surely indicates that ideology does play a role in many radicalization processes.

Concerning the group-process or mechanism explanations, several rigorous studies certainly provide evidence of "something" going on in these groups. Some of the suggested mechanisms seem to offer valid explanations as to why those who join groups out of coincidence or non-ideological reasons nevertheless end up as terrorists.[335] As Nesser and others have shown, as the group has coalesced, the pivotal figures seem to steer the others towards accepting and actively participating in violence. Such depictions rob the more accidental recruits of their agency, unless the explanation entails that the "non-ideological" members to some degree adopt the ideology of the group, and in some way align the tenets to their own idiosyncratic set of grievances, motivations or mundane reasons.

Another challenging aspect concerning the assessment of these processes is the question of whether individuals are guided, directed or fueled by rational calculations based on self-

[334] Thomas Hegghammer, "Violent Islamism In Saudi Arabia, 1979-2006: The Power And Perils Of Pan-Islamic Nationalism" (Phd diss., Ecole Doctorale De Sciences Po, 2007), pp. 40-41.
[335] Judging from the available evidence, the observation that most terrorists are recruited through existing social ties is well-documented. The intimate nature of these relationships, as suggested in the literature, might go some way in explaining why those that have joined for reasons other than ideological conviction might find it hard to defect as the hypothesized escalatory dynamics kick in.

interest, or rather by highly idiosyncratic emotive responses. The former implies a certain degree of systematic patterns, whereas the latter is rather unpredictable. Scholars suggest that the emotional aspects of the social processes are important[336], but perhaps undervalued and poorly understood.[337] The strength and causal impact of emotional forces is also hard, if not impossible, to gauge in a precise way. Still, strong emotions might explain seemingly irrational behavior. Substantial parts of both the immense output of contemporary jihadi propaganda[338] and the social practices of jihadi "culture" seem aimed at striking an emotional chord in the intended audiences. As one scholar hypothesizes,

> […]cultural products and practices are emotional persuasion tools that reinforce the cognitive persuasion work done by doctrine. Jihadi culture may help shape the beliefs and preferences of activists, ultimately affecting their decision to join, stay in, or perform certain tasks for the group. A common denominator of things like music, imagery, storytelling, or weeping is that they evoke or involve emotion. Primary sources are full of examples of people reporting a particular feeling while listening to anashid [a capella songs], watching videos, or reading poetry. We also know that individuals are exposed to cultural products early in their recruitment trajectories, and that some explicitly say they were drawn to jihadism more by the videos and the music than by the ideological tracts.[339]

Earlier generations of jihadists had to source pamphlets, cassettes or DVDs from likeminded activists or at local points of congregation. The contemporary prospective jihadi has large quantities of slickly produced propaganda material - video, music and text in several languages - at his fingertips at all times. Still, even though such material might produce rage

[336] See for example Scott Atran "Pathways To And From Violent Extremism: The Case For Science-Based Field Research" (statement before the senate armed services subcommittee on emerging threats & capabilities, March 10, 2010). Available at http://jeannicod.ccsd.cnrs.fr/ijn_00505380; Scott Atran, "The moral logic and growth of suicide terrorism", *Washington Quarterly* , 2 (2006), pp.127-147; Bartlett and Miller 2012:13-15; Stephen K. Rice, "Emotions and terrorism research: A case for a social-psychological agenda" *Journal of Criminal Justice*, 3 (2009), pp. 248-255; Simon Cottee and Keith Hayward, "Terrorist (e) motives: The existential attractions of terrorism." *Studies in Conflict & Terrorism*, 12 (2011), pp. 963-986; Thomas Hegghammer, "Why Terrorists Weep: The Socio-Cultural Practices of Jihadi Militants" (Paul Wilkinson Memorial Lecture, University of St. Andrews, 16 April 2015). Available at http://hegghammer.com/_files/Hegghammer_-_Wilkinson_Memorial_Lecture.pdf; Robert Agnew, "A general strain theory of terrorism", *Theoretical Criminology*, 2 (2010), pp. 131-153.

[337] Hegghammer, "Wilkinson Memorial", 2015; Rice 2009:253.

[338] See for example Aaron Y. Zelin, "Picture Or It Didn't Happen: A Snapshot of the Islamic State's Official Media Output", *Perspectives on Terrorism*, 4 (2015), pp. 85-97 (.pdf version).

[339] Hegghammer, "Wilkinson Memorial" 2015.

or hatred that will motivate some individuals to act, strong emotions are evidently *far* more widespread than terrorism.[340]

The way in which the group process thesis incorporates various explanatory causes makes it perhaps the most convincing of the explanations found in the empirical corpus. The group setting seemingly satisfies the personal needs and grievances of many individuals, be it the need for adventure, meaning, companionship, status, revenge, justice, redemption or other issues. The group mechanisms also offer to explain why a vast plurality of different individuals, with differing motivations, backgrounds, and levels of ideological commitment end up buying into the world-view and action-oriented prescriptions propagated in the global jihadi narrative. The explanation allows for multiple paths into militancy, caused by differing constellations of causes. Nevertheless, there is an obvious and urgent need to substantiate the limited amount of robust evidence produced to date. The empirical literature - with some notable exceptions and for several reasons – is lacking in depth, rigor, methodological stringency, and inferential modesty.

[340] Bartlett and Miller 2012:16-17.

4 Summary and conclusion

This review has been an attempt at gauging the extent of our knowledge on the causes of global jihadi terrorism at the individual- and group-levels of explanation – with a particular emphasis on critically assessing the evidentiary basis upon which they are built.

At the individual level, the decades-long scholarly effort to pin terrorism on psychopathological characteristics has proven to be more or less futile. The robust evidence in support of the psychopathology thesis is very limited and too rare to confidently claim that mental illness plays a large role in the occurrence of terrorism in general, and global jihadi terrorism in particular. Nevertheless, the lack of evidence still makes it premature to outright dismiss individual psychological characteristics as a part of the explanation. Terrorists are seldom available for clinical assessments, and high quality data that may serve to document illness or pathology is a rare commodity. Also, the pathology explanation undervalues contextual factors that evidently impact most cases of violent radicalization.

While numerous scholars point to various forms of discontent as point of departure in radicalization processes, this explanation is unsatisfactory for several reasons. There is a lack of precision when presenting the varied and wide-spread phenomena that may serve as propellants that explain the turn to violence. As noted by many scholars, it is not difficult to identify possible sources of discontent when retrospectively interpreting data in order to create a plausible causal path. Researchers must also be aware of post-hoc justifications that are not necessarily true representations of motivational factors; such justifications sometimes serve to conceal or embellish more mundane causes of action. Intuitively, it makes perfect sense that disaffection, resentment and frustrations play a motivational role in radicalization, and it seems well documented that many terrorists harbor such feelings. Still, a particular concern with every "discontent-explanation" is the fact that such crises, grievances or deprivation influence the lives of innumerable individuals who never engage in violent forms of protest. Therefore, such explanations only accrue merit when combined with other more potent causal factors or mechanisms.

Explanations anchored in the proposed impact of group processes and ideology also face challenges to their merit. Many scholars highlight the socio-psychological mechanisms found within groups as important. Few individuals turn to violence in isolation; most seem to either willfully or by chance create or become part of tight-knit cells or groups of friends, relatives or former acquaintances. Although the most robust, detailed and systematic empirical studies point to the dynamics found within groups of radicals as likely incubators of violence, researchers are often left to sketch out their interpretations based on patchy data from sources of varying quality. Furthermore, it is obviously hard, if not impossible, to accurately weigh the impact of these more or less intangible and immeasurable concepts or processes.

Concerning the causal impact of ideology, there are clear indications that ideologically committed individuals often make up the leadership of cells or groups. Consequently, even though not all terrorists are zealots, those who are exert a disproportionate degree of influence within the groups of radicals. Some studies also indicate that ideology offers an enticing and complete package that can "frame" discontent, explain who is to blame, prescribe the solution, and supply the religious and moral obligation to act. Although this may explain why some adopt the violent global jihadi ideology, most that are exposed to it clearly do not. Therefore, ideology can be seen as an important part of the within-group radicalization process, but not necessarily for all individuals.

Despite the difficulties of assessing how and to what degree group mechanisms and ideologies shape the radicalization process, the robust findings, though limited, clearly show in some cases that they offer to explain what separates those who turn violent from others.

Impediments and possibilities

As a repetition of earlier statements and thoroughly obvious by now, among the obstacles to acquiring robust knowledge, the lack of reliable and detailed data stands out. A lack of high quality data means that there are limits to what we may be able to elucidate. Scholars point fingers at the government and the intelligence community for their unwillingness to share what is presumed to be a treasure trove of, at least for now, classified data.

While some studies lack transparency, others fail to acknowledge the weaknesses inherent in the source material, the chosen research design or the methodological approach, and

subsequently fail to consider how this limits both the internal and external validity of their findings or conclusions. Methodological shortcomings are often times not reflected in the degree of modesty, contingency or boundedness in the conclusions. In addition, a large number of studies seem to draw on the data and findings from a few influential studies.

The available data at the individual and group levels of explanation does not lend itself well to methodology that may generate valid generalizations.[341] Even if "quantitative emulators" were let loose on rich data, this approach would not likely spawn insights on the role of ideas, emotions and other elusive but important factors, mechanisms and processes. The methods that best provide such elucidation, on the other hand, generate insights that are often highly context sensitive and contingent.

Paradoxically, while our lack of knowledge may have contributed to or failed to limit the number of Western foreign fighters or curb the threat from global jihadi terrorism, the continued recruitment, plotting and attacking provide opportunities to better understand the phenomenon and its causes. This new generation of militants may provide the data needed, both due to their sheer numbers, but also because they may have left vast amounts of clues to be examined[342] – both digital and physical. These can be mined and utilized to build a more solid empirical foundation upon which to base explanations.[343] This may reveal that what held true ten years ago may not represent today's militants.

As it stands, the empirical picture indicates that the explanatory causes (or perhaps constellations of causes) among terrorists are highly heterogeneous. No single causal template can explain violent radicalization. Consequently, there is no predictive capability to be found in the scholarship generated to date. Still, the recurring patterns or trajectories that have been extracted from the empirical material can be used to guide further research on factors or combinations of factors that seem to increase the risk of violent outcomes.

A lot of research is needed to build a robust and nuanced *understanding* of the radicalization process. This empirical base must be in place before one can credibly build, or at least attempt to build, generalizable theories or models that *explain (*or perhaps even predict) why and how individuals become terrorists.

[341] See for example Neumann and Kleinmann 2013:378.
[342] See Conway 2016.
[343] Barring ethical and privacy concerns.

Bibliography

Agnew, Robert (2010): "A general strain theory of terrorism", *Theoretical Criminology*, 2 (2010), pp. 131-153.

Aly, Anne and Lason-Leigh Striegher (2012): "Examining the Role of Religion in Radicalization to Violent Islamist Extremism", *Studies in Conflict and Terrorism,* 12 (2012), pp. 849-862.

Atran, Scott (2010): "Pathways To And From Violent Extremism: The Case For Science-Based Field Research", (statement before the senate armed services subcommittee on emerging threats & capabilities, March 10, 2010). Available at http://jeannicod.ccsd.cnrs.fr/ijn_00505380.

Atran, Scott (2014): "Martyrdom's would-be myth buster", *Behavioral and Brain Sciences* (2014), pp. 362-363.

Bakker, Edwin (2006): *Jihadi terrorists in Europe, their characteristics and the circumstances in which they joined the jihad: An exploratory study* (The Hague: Clingendael Institute, 2006).

Bakker, Edwin (2011): "Characteristics of Jihadi Terrorists in Europe", in *Jihadi Terrorism and the Radicalization Challenge: European and American Experiences,* ed. Rik Coolsaet (Farnham: Ashgate Publishing Company, 2011).

Bartlett, Jamie and Carl Miller (2012): "The Edge of Violence: Towards Telling the Difference Between Violent and Non-Violent Radicalization", *Terrorism and Political Violence,* 1 (2012), pp. 1-21.

Bjelopera, Jerome P. and Mark A. Randol (2010): "American Jihadist Terrorism: Combating a Complex Threat", Congressional Research Service, (Dec. 7, 2010).

Bloom, Mia (2007), *Dying to Kill,* (New York: Columbia University Press, 2007).

Borum, Randy (2007): *Psychology of Terrorism*, review report from the University of South Florida, Tampa, Department of Mental Health Law and Policy (2007). Available at. http://www.dtic.mil/dtic/tr/fulltext/u2/a494527.pdf.

Borum, Randy (2014): "Psychological Vulnerabilities and Propensities for Involvement in Violent Extremism", *Behavioral Sciences and the Law,* vol. 32(2014), pp. 286-305.

Brym, Robert J. and Bader Araj (2012): "Are Suicide Bombers Suicidal?", *Studies in Conflict and Terrorism,* 6 (2012), pp. 432-443.

Brym, Robert J. and Bader Araj (2012): "Suicidality and Suicide Bombing Revisited: A Rejoinder to Merari", *Studies in Conflict and Terrorism,* 10 (2012), pp. 733-739.

Bullis, Daryl R. and Richard D. Irving (2013): "Journals Supporting Terrorism Research: Identification and Investigation into Their Impact on the Social Sciences", *College & Research Libraries,* 2 (2013), p. 119-130.

Campana, Aurélie and Luc Lapointe (2012): "The Structural 'Root' Causes of Non-Suicide Terrorism: A Systematic Scoping review, *Terrorism and Political Violence,* 1 (2012), pp. 79-104.

Coolsaet, Rik (2005): *Al-Qaeda the Myth: The Root Causes of International Terrorism And How To Tackle Them* (Gent: Academia Press).

Coolsaet, Rik ed. (2011): *Jihadi Terrorism and the Radicalisation Challenge: European and American Experiences* (Farnham: Ashgate, 2nd edition).

Conway, Maura (2016): "Determining the Role of the Internet in Violent Extremism and Terrorism: Six Suggestions for Progressing Research", *Studies in Conflict & Terrorism* (2016), pp. 1-22.

Cottee, Simon and Keith Hayward (2011): "Terrorist (e) motives: The existential attractions of terrorism." *Studies in Conflict & Terrorism*, 12 (2011), pp. 963-986.

Crenshaw, Martha (2007): "Explaining suicide terrorism: A review essay", *Security Studies* 16.1 (2007), pp. 133-162.

Dalgaard-Nielsen, Anja (2010): "Violent Radicalization in Europe: What We Know and What We Do Not Know", *Studies in Conflict & Terrorism,* 9 (2010), pp. 797-814.

Demmers, Jolle (2012): *Theories of Violent Conflict: An Introduction* (Abingdon: Routledge).

Egerton, Frazer (2011): *Jihad in the West: The Rise of Militant Salafism* (Cambridge: Cambridge University press).

Egerton, Frazer (2011): *Jihad in the West: The Rise of Militant Salafism* (Cambridge: Cambridge University Press, 2011).

Euben, Roxanne (1999): *Enemy in the Mirror: Islamic Fundamentalism and the Limits of Modern Rationalism* (Princeton: Princeton University Press).

Gartenstein-Ross, Daveed, and Laura Grossman (2009): *Homegrown Terrorists in the U.S. and U.K.: An Empirical Examination of the Radicalization Process,* report for the Foundation for Defense of Democracies (Washington, DC: FDD Press, 2009). Available at

Gerges, Fawaz A. (2011): *The Rise and Fall of al-Qaeda* (Oxford: Oxford University Press, revised paperback edition).

Gerring, John (2008): "The mechanismic worldview: Thinking inside the box", *British journal of political science*, 1 (2008), pp. 161-179.

Gerring, John (2012): "Mere description", *British Journal of Political Science,* 4 (2012), pp. 721-746.

Gerring, John. *Case study research: principles and practices* (Cambridge: Cambridge University Press, 2006).

Githens-Mazer, Jonathan (2012): “The rhetoric and reality: radicalization and political discourse”, *International Political Science Review,* 5 (2012), pp. 556-567.

Hafez, Mohammed and Creighton Mullins (2015): "The Radicalization Puzzle: Theoretical Synthesis of Empirical Approaches to Homegrown Extremism, Studies in Conflict & Terrorism, 11(2015), pp. 958-975.

Hafez, Mohammed M. (2006): “Rationality, Culture, and Structure in the Making of Suicide Bombers: A Preliminary Theoretical Synthesis and Illustrative Case Study”, *Studies in Conflict and Terrorism,* 2 (2006), pp. 165-185.

Harris-Hogan, Shandon (2012): "Australian neo-jihadist terrorism: Mapping the network and cell analysis using wiretap evidence" *Studies in Conflict & Terrorism*, 4 (2012), pp. 298-314.

Hegghammer, Thomas (2006): “Global Jihadism After the Iraq War”, *Middle East Journal*, 1 (2006), pp. 11-32.

Hegghammer, Thomas (2007): “Violent Islamism in Saudi Arabia, 1979-2006: The Power And Perils Of Pan-Islamic Nationalism” (Phd diss., Ecole Doctorale De Sciences Po, 2007).

Hegghammer, Thomas (2009): "The Ideological Hybridization of Jihadi Groups." *Current Trends in Islamist Ideology* 9 (2009), pp. 26-45.

Hegghammer, Thomas (2010): *Jihad in Saudi Arabia: Violence and Pan-Islamism since 1979* (Cambridge: Cambridge University Press).

Hegghammer, Thomas (2013): "Should I Stay or Should I Go? Explaining Variation in Western Jihadists' Choice between Domestic and Foreign Fighting" *American Political Science Review*, 1 (2013), pp. 1-15.

Hegghammer, Thomas (2015): “Why Terrorists Weep: The Socio-Cultural Practices of Jihadi Militants” (Paul Wilkinson Memorial Lecture, University of St. Andrews, 16 April 2015). Available at http://hegghammer.com/_files/Hegghammer_-_Wilkinson_Memorial_Lecture.pdf.

Hegghammer, Thomas, and Petter Nesser (2015): "Assessing the Islamic State’s Commitment to Attacking the West", *Perspectives on Terrorism*, 4 (2015), pp. 14-30 (pdf version).

Hoffman, Bruce (2006): *Inside Terrorism* (New York: Columbia University Press, revised and expanded edition).

Hofmann, David C. and Alex P. Schmid (2012): “Selected Literature on (i) Radicalization and Recruitment, (ii) De-Radicalization and Dis-Engagement, and (iii) Counter-Radicalization and Countering Violent Extremism”, *Perspectives on Terrorism,* 6 (2012), pp. 114-143.

Hofmann, David C. and Lorne L. Dawson (2014): “The Neglected Role of Charismatic Authority in the Study of Terrorist Groups and Radicalization”, *Studies in Conflict & Terrorism,* 4 (2014), pp. 348-368.

Horgan, John (2005): *The Psychology of Terrorism* (Abingdon: Routledge, 2005).

Horgan, John (2008): "From Profiles to *Pathways* and Roots to *Routes*: Perspectives from Psychology on Radicalization into Terrorism", *The ANNALS of the American Academy of Political and Social Science,* 1 (July, 2008), pp. 80-94.

Jenkins, Brian Michael (2010): "Would-BeWarriors: Incidents of Jihadist Terrorist Radicalization in theUnited States Since September 11, 2001," *RAND Occasional Paper* (June, 2010), p. vii. Available at http://www.rand.org/pubs/occasional papers/OP292/.

King, Michael and Taylor, Donald M. (2011): "The Radicalization of Homegrown Jihadists: A Review of Theoretical Models and Social Psychological Evidence", *Terrorism and Political Violence*, 4 (2011), pp. 602-622.

King, Michael, and Donald M. Taylor (2011): "The radicalization of homegrown jihadists: A review of theoretical models and social psychological evidence." *Terrorism and Political Violence* 23.4 (2011), pp. 602-622.

Kirby, Aidan (2007): "The London bombers as "self-starters": A case study in indigenous radicalization and the emergence of autonomous cliques", *Studies in Conflict & Terrorism*, 5 (2007), pp. 415-428.

Kleinmann, Scott Matthew (2012): "Radicalization of homegrown Sunni militants in the United States: Comparing converts and non-converts", *Studies in Conflict & Terrorism*, 4 (2012), pp. 278-297.

Koivu, Kendra, and Erin Kimball (2010): "The Gap within: Differences between Approaches in Qualitative Methods", *APSA 2010 Annual Meeting Paper* (2010). Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1663342.

Krueger, Alan B. (2007): *What Makes a Terrorist: Economics and the Roots of Terrorism* (Princeton: Princeton University Press).

Kruglanski, Arie W. and Shira Fishman (2009): "Psychological Factors in Terrorism and Counterterrorism: Individual, Group, and Organizational Levels of Analysis", *Social Issues and Policy Review,* 1 (2009), p. 1-44.

Kurtulus, E. N. (2011): "The 'New Terrorism' and its Critics", *Studies in Conflict and Terrorism*, 6 (2011), pp. 476-500.

Lankford, Adam (2010): "Do suicide terrorists exhibit clinically suicidal risk factors? A review of initial evidence and call for future research", *Aggression and Violent Behavior* (2010), pp. 334-340.

Lankford, Adam (2011): "Could Suicide Bombers Actually Be Suicidal?", *Studies in Conflict & Terrorism,* 4 (2011), pp. 337-366.

Lankford, Adam (2012): “A Psychological Autopsy of 9/11 Ringleader Mohamed Atta”, *Journal of Police and Crmininal Psychology* (2012), pp. 150–159.

Lankford, Adam (2014a): “Evidence that suicide terrorists are suicidal: Challenges and empirical predictions”, *Behavioral and Brain Sciences* (2014), pp. 380-393.

Lankford, Adam (2014b): “Précis of *The Myth of Martyrdom: What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers”, Behavioral and Brain Sciences* (2014), pp. 351-362.

Leistedt, Samuel J. (2013): “Behavioural aspects of terrorism”, *Forensic Science International,* 228 (2013), pp. 21-27.

Levy, Jack S. (2008): “Case Studies: Types, Designs, and logic of Inference”, *Conflict Management and Peace Science,* 1 (2008).

Lia, Brynjar (2005): *Globalization and the Future of Terrorism: Patterns and Predictions* (Abingdon: Routledge).

Lia, Brynjar (2010): "Al-Qaida’s appeal: Understanding its unique selling points." *Perspectives on Terrorism,* 8 (2010).

Mahoney, James, and Gary Goertz (2006): "A tale of two cultures: Contrasting quantitative and qualitative research", *Political Analysis*, 3 (2006): 227-249.

Malthaner, Stefan (2014): “Contextualizing Radicalization: The Emergence of the ‘Sauerland-Group’ from Radical Networks and the Salafist Movement”, *Studies in Conflict and Terrorism,* 8 (2014).

McAllister, Bradley and Alex P. Schmid (2012) “Theories of Terrorism”, in *The Routledge Handbook of Terrorism Research,* ed. Alex P. Schmid (Abingdon: Routledge), pp. 214-222.

McCants, William (2012): "The lesser of two evils: the Salafi turn to party politics in Egypt", *Middle East Memo,* no. 23 (May, 2012), pp. 1-8. Available at http://www.brookings.edu/~/media/research/files/papers/2012/5/01-salafi-egypt-mccants/0501_salafi_egypt_mccants.pdf.

McCauley, Clark (2007): “Psychological Issues in Understanding Terrorism and the Response to Terrorism”, in *Psychology of Terrorism,* ed. Bruce Bongar et al. (Oxford: Oxford University Press), pp. 33-66.

McCoy, John and W. Andy Knight (2015): “Homegrown Terrorism in Canada: Local Patterns, Global Trends”, *Studies in Conflict & Terrorism,* 4 (2015), pp. 253-274.

Meijer, Roel, ed. (2009): *Global Salafism: Islam’s New Religious Movement* (London: C. Hurst & Co.).

Merari, Ariel (2010): *Driven to Death: Psychological and Social Aspects of Suicide Terrorism* (Oxford: Oxford University Press, 2010).

Merari, Ariel (2012): "Studying Suicide Bombers: A Response to Brym and Araj's Critique", *Studies in Conflict and Terrorism,* 6 (2012), pp. 444-455.

Merari, Ariel, Ilan Diamant , Arie Bibi , Yoav Broshi and Giora Zakin (2009): "Personality Characteristics of "Self Martyrs"/"Suicide Bombers" and Organizers of Suicide Attacks", *Terrorism and Political Violence*, 1 (2009), pp. 87-101.

Mintz, Alex and David Brule (2009): "Methodological Issues in Studying Suicide Terrorism", *Political Psychology,* 3 (June, 2009), pp. 365-371.

Moghadam, Assaf (2008): "The Salafi-Jihad as a Religious Ideology", *The CTC Sentinel,* Combating Terrorism Center, 3 (2008). Available at https://www.ctc.usma.edu/posts/the-salafi-jihad-as-a-religious-ideology.

Moghadam, Assaf and Brian Fishman, eds. (2010): *Self-Inflicted Wounds: Debates and Divisions within al-Qai'da and its Periphery,* report from the Harmony Project at Combating Terrorism Center, (West Point, 2010). Available at www.ctc.usma.edu.

Moghaddam, Fathali (2005): "Staircase to Terrorism: A Psychological Exploration", *American Psychologist,* 2 (2005), pp. 161-169.

Mousseau, Michael (2011): "Urban poverty and support for Islamist terror Survey results of Muslims in fourteen countries" *Journal of Peace Research,* 1 (2011), pp. 35-47.

Nesser, Petter (2006): "Jihadism in Western Europe after the invasion of Iraq: Tracing motivational influences from the Iraq war on Jihadist terrorism in Western Europe", *Studies in Conflict & Terrorism,* 4 (2006), pp. 323-342.

Nesser, Petter (2010): "Joining jihadi terrorist cells in Europe", in *Understanding Violent Radicalization: Terrorist and Jihadist Movements in Europe,* ed. Magnus Ranstorp (Abingdon: Routledge, 2010).

Nesser, Petter (2011a): "Ideologies of Jihad in Europe", *Terrorism & Political Violence*, 2 (2011), pp. 173-200.

Nesser, Petter (2011b): "Jihad in Europe: Patterns in Islamist terrorist cell formation and behavior, 1995-2010" (Phd diss., University of Oslo).

Nesser, Petter (2016): *Islamist Terrorism in Europe: A History* (London: Hurst Publishers).

Neumann, Peter (2008): *Adelphi Paper 399: Joining al-Qaeda: Jihadist Recruitment in Europe* (Abingdon: Routledge for The International Institute for Strategic Studies).

Neumann, Peter (2013): "The trouble with radicalization", *International Affairs,* 4 (2013), pp.873-893.

Neumann, Peter and Scott Kleinmann, "How Rigorous is Radicalization Research?", *Democracy and Security,* 4 (2013), pp. 360-382.

Pape, Robert A. (2005): *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Randon House, paperback edition)

Pape, Robert A. (2010): "It's the Occupation, Stupid", *Foreign Affairs,* Oct. 18, 2010.

Pape, Robert A. and James K. Feldman (2010): *Cutting the Fuse: The Explosion of Global Suicide Terrorism & How to Stop It* (Chicago: Chicago University Press).

Peter Neumann (2008): "Joining al-Qaeda: Jihadist Recruitment in Europe", *Adelphi Paper 399* (London: The International Institute for Strategic Studies).

Post, Jerrold M., Farhana Ali, Schuyler W. Henderson, Steven Shanfield, Jeff Victoroff, and Stevan Weine (2009): "The Psychology of Suicide Terrorism", *Psychiatry,* 1 (2009), pp. 13-31.

Price, Eric (2013): "Literature on al-Qaeda", *Perspectives on Terrorism,* 1 (2013), not paginated.

Qamar, Zubair (2013): "Adam Lankford. The Myth of Martyrdom: What Really Drives Suicide Bombers, Rampage Shooters, and Other Self-Destructive Killers", *Perspectives on Terrorism*, 1 (2013), pp. 152-166.

Ranstorp, Magnus, ed. (2010): *Understanding Violent Radicalization: Terrorist and Jihadist Movements in Europe* (Abingdon: Routledge).

Ranstorp, Magnus, Ragnhild B. Lygre, Jarle Eid and Gerry Larsson (2011): "Terrorism as a process: A critical review of Moghaddam's 'Staircase to Terrorism'", *Scandinavian Journal of Psychology,* 52 (2011).

Reid, Edna and Hsinchun Chen (2008): "Domain Mapping Contemporary Terrorism", in Hsinchun Chen, Edna Reid, Andrew Silke, Joshua Sinai and Boaz Ganor (eds.), *Terrorism Informatics: Terrorism Informatics: Knowledge Management and Data Mining for Homeland Security* (New York: Springer, 2008), pp. 3-26.

Reiss, Julian (2009): "Causation in the social sciences: Evidence, inference, and purpose", *Philosophy of the Social Sciences* (2009), pp. 1-21.

Rice, Stephen K. (2009): "Emotions and terrorism research: A case for a social-psychological agenda" *Journal of Criminal Justice*, 3 (2009), pp. 248-255.

Ruby, Charles L. (2002): "Are Terrorists Mentally Deranged?", *Analysis of Social Issues and Public Policy,* 1 (2002), pp. 15-26.

Sageman, Marc (2004): *Understanding Terrorist Networks* (Philadelphia: University of Pennsylvania Press).

Sageman, Marc (2011): *Leaderless Jihad: The Face of Modern Terror* (Philadelphia: University of Pennsylvania Press, ebook edition).

Sageman, Marc (2014): "The Stagnation of Terrorism Research", *Terrorism and Political Violence,* 4 (2014) pp. 566-576.

Scheuer, Michael (2011): *Osama bin Laden* (Oxford: Oxford University Press).

Schmid, Alex P. (2014): "Comments on Marc Sageman's Polemic "The Stagnation in Terrorism Research", *Terrorism and Political Violence*, 4 (2014), pp. 587-595.

Schmid, Alex P., ed. (2011): *The Routledge Handbook of Terrorism Research* (Abingdon: Routledge).

Schuurman, Bart and Quirine Eijkman (2013): "Moving Terrorism Research Forward: The Crucial Role of Primary Sources", background report for the International Center for Counter-Terrorism (The Hague: 2013). Available at http://www.icct.nl/download/file/Schuurman-and-Eijkman-Moving-Terrorism-Research-Forward-June-2013.pdf.

Sedgwick, Mark (2010): "The Concept of Radicalization as a Source of Confusion", *Terrorism and Political Violence*, 4 (2010), pp. 479-494.

Sedgwick, Mark (2015): "Jihadism, Narrow and Wide: The Dangers of Loose Use of an Important Term", *Perspectives on Terrorism*, 2 (April, 2015).

Silber, Mitchell D. and Arvin Bhatt (2007): "Radicalization in the West: The Homegrown Threat", report commissioned by The New York City Police Department (2007). Available at: http://www1.nyc.gov/html/nypd/downloads/pdf/public_information/NYPD_Report-Radicalization_in_the_West.pdf.

Silke, Andrew (1998): "Cheshire-cat logic: The recurring theme of terrorist abnormality in psychological research", *Psychology, Crime & Law*, 4 (1998), pp. 51-69.

Silke, Andrew (2003): "Becoming a Terrorist", in *Terrorists, Victims and Society: Psychological Perspectives on Terrorism and its Consequences*, ed. Andrew Silke (West Sussex: Wiley & Sons, 2003), pp. 29-54.

Silke, Andrew (2008): "Holy Warriors: Exploring the Psychological Processes of Jihadi Radicalization", *European Journal of Criminology*, 1 (2008), pp. 99-123.

Silke, Andrew (2008): "Research on Terrorism: A Review of the Impact of 9/11 and the Global War on Terrorism", in Hsinchun Chen, Edna Reid, Andrew Silke, Joshua Sinai and Boaz Ganor (eds.), *Terrorism Informatics: Terrorism Informatics: Knowledge Management and Data Mining for Homeland Security* (New York: Springer, 2008), pp. 27-50.

Slootman, Marieke and Jean Tillie (2006): *Processes of radicalisation. Why some Amsterdam Muslims become radicals* (Amsterdam: Institute for Migration and Ethnic Studies, University of Amsterdam, October 2006).

Tinnes, Judith (2013): "100 Core and Periphery Journals for Terrorism Research", *Perspectives on Terrorism*, 2 (2013), pp. 95-103.

Tinnes, Judith (2015): "Although the (Dis-) Believers Dislike it: a Backgrounder on IS Hostage Videos–August-December 2014", *Perspectives on Terrorism*, 1 (2015), pp. 76-94.

Townsend, Ellen (2007): "Suicide terrorists: Are they suicidal?", *Suicide and Life-Threatening Behavior*, 1 (2007), pp. 35-49.

Trachtenberg, Marc (2009): *The craft of international history: A guide to method* (Princeton: Princeton University Press, 2009).

Victoroff, Jeff (2005): "The Mind of the Terrorist: A Review and Critique of Psychological Approaches", *The Journal of Conflict Resolution,* 1 (2005), pp. 3-42.

Weenink, Anton W. (2015): "Behavioral Problems and Disorders among Radicals in Police Files", *Perspectives on Terrorism,* 2 (April, 2015), pp. 17-33.

Weinberg, Leonard, Ami Pedahzur and Sivan Hirsch-Hoefler (2004): "The Challenges of Conceptualizing Terrorism", *Terrorism and Political Violence,* 4 (2004), pp. 777-794.

Wiktorowicz, Quintan (2004): "Joining the Cause: Al Muhajiroun and Radical Islam". Paper presented at "The Roots of Islamic Radicalism" Conference, *Yale University, USA (May 8-9* 2004). Available at http://insct.syr.edu/wp-content/uploads/2013/03/Wiktorowicz.Joining-the-Cause.pdf.

Wiktorowicz, Quintan (2005): "A Genealogy of Radical Islam", *Studies in Conflict and Terrorism,* 2 (2005), pp. 75-97.

Wiktorowicz, Quintan (2005): *Radical Islam Rising: Muslim Extremism in the West* (Oxford: Rowman & Littlefield).

Wiktorowicz, Quintan, and John Kaltner (2003): "Killing in the name of Islam: Al-Qaeda's justification for September 11", *Middle East Policy* 10.2 (2003): 76.

Zelin, Aaron Y (2015): "Picture Or It Didn't Happen: A Snapshot of the Islamic State's Official Media Output" *Perspectives on Terrorism,* 4 (2015), pp. 85-97.

Zelin, Aaron Y. (2012): "Jihadi Studies Bibliography", *jihadology.net,* updated Dec. 15, 2012. Available at http://jihadology.net/2013/01/02/jihadology-presents-jihadi-studies-bibliography-v-1-0/.

Appendix A

Primary search terms[344]	Secondary terms
	Chapter 2
Jihad/-i/-ism/-ist or Islam/-ic/-ist	Psycholog/-y/-ical or mental
Terror/-ism/-ist	Individual
Cause/-s or motivation	Pathology/-ical or illness
Radical/-ization/-isation	Character/-istics or trait/-s
Global	Personality
Violent	Profile
	Chapter 3
	Ideolog/-y/-ical
	Group
	Socio-psychological
	Grievance/-s
	Deprivation/-s
	Religio/-n/-us
	Econom/-y/-ic/-ical
	Political
	Socio-economic/-al
	Alienat/-ion/-ed
	Identity
	Discriminat/-e/-ion

Databases/search engines:
Web of Science[345]
Google Scholar[346]
JSTOR[347]
Taylor & Francis Online[348]
PsycInfo[349]

[344] Searches were conducted with multiple combinations of primary terms combined with various secondary terms. To include variations of the different terms and concepts, searches were conducted using the root of the search word and the asterisk (*), e.g. jihad* or terror*. The operator OR was used to combine terms within the same concept (for example cause* OR motivation). The operator AND was used to combine concepts (for example cause* AND terror*, or cause* AND terror* AND psycholog*). As the searches yielded relevant literature, additional terms were added to subsequent searches. See Booth et al, "Five: Searching the Literature", 2012:70-96; Aurélie Campana and Luc Lapointe, "The Structural 'Root' Causes of Non-Suicide Terrorism: A Systematic Scoping review, *Terrorism and Political Violence,* 1 (2012), pp. 79-104.

[345] https://apps.webofknowledge.com/UA_GeneralSearch_input.do?product=UA&search_mode=GeneralSearch&SID=N1iIwEOQxrEEjoptbtd&preferencesSaved=

[346] http://scholar.google.no/

[347] http://www.jstor.org/action/showAdvancedSearch

[348] http://www.tandfonline.com/search/advanced

[349] http://psycnet.apa.org/index.cfm?fa=search.defaultSearchForm