# The Psychogenesis of Terrorism

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**Student Declaration**

I, Emily Joy Corner confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signed

Name

Date

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This thesis would never have reached its conclusion without the help of a wide list of people. Not all are mentioned here, as the list is far too long. But there are a few key individuals, who have had a far greater impact, and without them, I would never have managed to tackle the hurdles of the last three years.

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This thesis is my own work, and has not been submitted in the same form for the award of a higher degree at any other institution. Early versions of certain aspects of this thesis were published, or submitted for publication in the following periodicals:

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**Abstract**

Studies concerning both mental disorder and involvement in terrorism have a long and convoluted history. The literature that has focused on attempting to understand psychological drivers of terrorist behaviour has shifted through multiple stages. Moving from untested assumptions of psychopathology, personality, and deviance, towards more empirically sound interpretations of sociology. While the early studies were correctly debunked on methodological grounds, the existing consensus, spawned from the growing interest in sociology, that mental disorder never plays a role in terrorism, is likely to be a fallacy when we consider the complexity of the problem and the diverse pool of individuals who engage in it.

This body of research falls into line with highly influential seminal reviews, and more recent re-examination of the role of group processes in terrorism. This thesis takes the starting position that the logic of an act of targeted violence being either borne out of mental health problems or terrorism is likely to be a false dichotomy. Instead, we are likely to see a range of mental disorders across the arc of terrorist involvement. This thesis utilises multiple existing and novel inferential statistical techniques on both qualitative and quantitative datasets, to address the current discord both in the understanding of the potential role of psychopathology, and to re-examine currently well accepted, but as yet untested theories of terrorist behaviour. The intent of this multi-pronged methodology is to provide practitioners with a holistic understanding of the problem as well as suggestions toward preventing and disrupting future offences.

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# Introduction

On Monday 15th December 2014 at 08:33, Man Haron Monis entered the Lindt Chocolate Cafe in Martin Place, Sydney. He wore camouflage trousers and a large backpack, and carried a blue bag. Monis ordered a piece of chocolate cake and tea. At 09:44, Monis put on a bandana and pulled a 12-gauge shotgun out of the blue bag, holding it to the café manager's head. Monis shouted at customers to stand with their hands raised. He announced he was an Islamic State representative, and that he was conducting a terrorist attack. Monis instructed the café manager to call emergency services and tell them: "This is an attack on Australia by Islamic State" (Safi, 2015, January 29).

Monis told the hostages: "You're here because of [Australian Prime Minister] Tony Abbott and what we're doing overseas…No one cares about you…the government doesn't care about you" (Australian Associated Press, 2015, April 1). He told the 18 hostages there were bombs in the building and radio-controlled explosives in Martin Place and Circular Quay. At 10:10, Monis forced two hostages to hold a black flag with Arabic script to the café window. The flag was later identified as the Shahada (the Islamic creed), and is used by both extremist and non-extremist organisations. Monis grew frustrated when the media reported this, saying to the hostages:

> "You don't have to have an Isis flag to be involved with Isis. It doesn't work like that. You don't have to be a member. If you say you support Isis, and you work for its cause, then you're a part of Isis" (Safi, 2016, April 6)

Over the course of the 16-hour siege, Monis instructed at least two hostages to post status updates on Facebook listing his demands, and made the hostages appear in videos which were uploaded to YouTube. Monis offered hostages in exchange for his demands being met. In exchange for an on-air broadcast phone call with Prime Minister Tony Abbott, he would release five hostages; if the government declared that his act was a terrorist attack committed on behalf of the Islamic State, he would release two more hostages; and in exchange for a black ISIS flag, he would release one hostage. The siege ended at 02:35 after an exchange of gunfire between Monis and the police. Monis and two hostages were killed and an additional four suffered non-fatal injuries.

In the aftermath of the attack, and at the Coroner's inquest, a debate persisted on how to classify Monis and his actions. Monis had a history of mental health problems. Between 2005 and the attack, Monis' mental state was assessed by six professionals, two of which he

attended over periods of time. His behaviour prompted a range of preliminary diagnoses including major depressive disorder, panic disorder, paranoia, delusional symptoms, chronic schizophrenia, post-traumatic stress disorder, obsessive compulsive disorder, sleep disorder, panic disorder, and anxiety. Throughout his multiple encounters with services, no professional assessed Monis to represent a risk to himself or others, nor was it ever recommended that Monis be admitted to hospital for treatment.

Many commentators reasoned it was this history of mental disorder that best explains his actions and that he should not be considered a terrorist. For example, Dr Rodger Shanahan, a Research Fellow from the Lowy Institute, argued at the inquest that Monis was "not motivated by political, ideological or religious causes, but rather was someone with mental health issues acting on his own personal grudges" (Safi, 2015, August 25). Shanahan also argued that "If he [Monis] was following IS [Islamic State] direction why didn't he go in there and kill everyone?" (Australian Associated Press, 2015, August 26). Shanahan instead believed that Monis chose the Lindt cafe for personal rather than political reasons, highlighting Monis' historical grievance with Network Seven's Sunrise program, the studios of which were across the road from the Lindt Cafe. Shanahan also drew on Monis' lack of direct connection to ISIS, his use of the Shahada, and his wearing of a headband which has an association with the Shia sect of Islam, considered heretical by ISIS (Safi, 2015, August 25). Dr Clarke Jones of Australian National University agreed with Shanahan, explaining that due to his mental health problems, Monis was desperate to attach himself to a cause, further explaining that his actions were extremely hard to predict (Australian Associated Press, 2015, August 26).

Terrorism scholar Bruce Hoffman held an opposing view. He informed the inquest that there was "overwhelming" (Safi, 2015, August 25) evidence the siege was an act of terrorism. "From the evidence I was provided I believe and concluded that Mr Monis did have a political motive" (Safi, 2015, August 25). He cited Monis' request for an ISIS flag, and his attempts to broadcast his demands to a wider audience: "[The siege] was designed to have far-reaching psychological repercussions beyond the immediate victims" (Safi, 2015, August 25). Monis' history of mental disorder, in Hoffman's opinion, was "immaterial" as to whether he carried out a terrorist attack (Safi, 2015, August 25). Based on the strategic position of the attack location, the violence involved, the political motivations he declared, and the fact that his actions were designed to have longstanding psychological repercussions Hoffman "would still have confidence in characterising him as a radicalised terrorist" (Safi, 2015, August 25). This position focused upon how the attack was carried out as opposed to focusing upon the motivations of the offender itself. Hoffman explained: "until we can peer into men's souls, we

have no idea what motivated them… you have to look at the act, which I have no doubt was a terrorist attack" (Safi, 2015, August 25).

In the initial stages of the inquest, forensic psychologist Kate Barrelle, advisor to the coroner, explained that Monis had an insecure or floating sense of self, and his behaviour during the siege did not reflect that of an ISIS-style attack. Barrelle agreed with the inquest's initial summary that Monis' own interests triggered the attack and his espoused grievances were invented. Barrelle concluded that Monis did not behave like a terrorist during the siege and carried out the attack due to desperation not radicalisation. Barrelle explained that the availability of ISIS rhetoric provides a powerful outlet for those with mental disorder to justify their actions (Safi, 2015, August 25).

However, later in the inquest, Barrelle gave further evidence. This time, Barrelle concluded that Monis suffered from "narcissism, paranoia, and antisocial behaviour disorder" (Safi, 2016, April 7). Barrelle explained that although Monis' behaviour did not fit that of existing terrorist profiles (explaining that this may be due to a lag between events and academic investigations), he was "undoubtedly a terrorist" (Safi, 2016, April 7). Forensic psychiatrist Jonathan Phillips concurred with Barrelle's second concluding remarks regarding Monis' personality. He dismissed the possibility that Monis also suffered from co-morbid disorders by explaining that earlier non-psychosis related diagnoses were no different from "what everyone experiences 'from time to time'". Phillips reasoned his decision was based on Monis' history of sexual assaults, and that he "orchestrated the incident in a meticulous and callous manner" (Australian Associated Press, 2016, May 2). Counsel assisting the coroner at the inquest, Jeremy Gormly, SC., surmised Phillips conclusions: "[Monis] was suffering from some definable personality disorders, including anti-social, paranoid and narcissistic tendencies, but did not suffer a mental illness and his actions cannot be attributed to mental illness" (Safi, 2016, March 21).

The case of Man Haron Monis is not isolated. Practitioners within the United Kingdom have been long aware of the risk of radicalisation and the potential for terrorism in individuals with mental disorder. Since 2003, the government policy for counter terrorism within the United Kingdom, CONTEST (HM Government, 2011a), has had specific programmes designed to identify, and treat individuals with mental health problems who are at risk of radicalisation. The Prevent strategy (HM Government, 2011) works to prevent individuals from progressing to enact terrorist offences. Prevent comes under the safeguarding directorate, and focuses on individuals who are at risk of radicalisation. Referrals are made to specially trained Prevent officers, who discuss the case with a safeguarding panel, to see if the case warrants further attention with a Channel panel. Channel was first piloted in 2007, and forms

an integral part of Prevent. Channel utilises a multiagency approach to identify needs, and provide support to individuals who are at risk of radicalisation (HM Government, 2015). The Channel process is a multifaceted, multistage model, with input from multiple authorities such as local authority, Prevent, housing, police, and education.

Referrals to Prevent range from medium secure settings with patients with extensive forensic histories, down to individuals who are high functioning within the community. According to practitioners, the majority of individuals referred to Prevent are acutely unwell, in the midst of florid psychotic episodes. Current empirical research is also highlighting the high level of unmet mental health needs in cohort of individuals who are referred to Channel (Dodd, 2016, 20 May).

The Prevent strategy has met with large amounts of criticism from practitioners, and within the media. Alongside this, there are also knowledge and practitioner gaps between the Prevent, Channel, and referrals into mental health services. The lack of mental health training for officers and issues with engagement, has led to certain individuals who don't meet the threshold for mainstream psychiatric or social services, being 'lost' within the system. Spanning from these problems, a pilot study is currently underway to harmonise how police and mental health professionals work together in partnership, to identify mental health vulnerabilities in individuals identified by the Prevent and Channel processes.

The pilot is based on street triage, liaison diversion, and assertive outreach protocol. This allows for more proactive approaches to identification and referrals. Within the street triage processes, mental health professionals and police work together, visiting individuals within communities, and connect them with services. Currently street triage and liaison diversion are one off assessment processes, which has fed into engagement problems. The pilot therefore also adopts an assertive outreach approach, where practitioners continually attempt to encourage engagement. In order to ensure effectiveness, multiple services will be involved, support is offered for both agencies and individuals, and practitioners at all levels are aware of the importance of understanding how vulnerability towards radicalisation and moving towards terrorism may be interrelated with mental health and psychosocial vulnerabilities.

There are also three pilots, within three UK based counter terrorism policing units. Three full time mental health practitioners are now employed within the units to support police in understanding the role of mental health within terrorism.

Awareness of the risk of radicalisation within individuals with mental health programmes is not specific to the United Kingdom. Practitioners within the United States are

also working to develop programmes to reduce the risk for individuals with multiple complex needs, one of which may be mental disorder. One current programme, based within Illinois works to connect communities together, and brings external experts to help educate community members to help develop effective programmes, and connect resources. There is ongoing committee development, which comprises of numerous entities which will act to help direct intervention programmes to communities. This programme development has spanned from calls from practitioners for subject-specific training, and education, as currently they are unsure as to where their responsibilities lie.

The above mentioned programmes focus on identifying mental health needs of individuals who have been identified as at risk of radicalisation, not the mental health needs of those involved in terrorism. To date, practitioners remain reliant on academia to establish the mental health needs in groups of terrorists across different levels of engagement. However, the above illustrative example highlights pervasive issues concerning the study of psychopathology within terrorism; the unwillingness to expand the knowledge base past current dichotomous conclusions for the role of mental disorder within terrorism. The evidence from those involved in countering radicalisation in vulnerable individuals highlights the lag between academic knowledge and practical development. The current empirical evidence base within terrorism studies not only fails to indicate a definitive link between being involved in terrorism and mental disorder, it also, in many cases, refutes it. This state of evidence, alongside the case study and practitioner evidence provokes a number of questions, which are particularly pertinent given the tendency within the literature over the past forty years to lurch from assumptions of terrorism as an outlet for severe psychopathology, to assumptions of no relationship between psychopathology and terrorist behaviour. They include:

- ° Why has the scientific literature concerning psychopathology within terrorism not demonstrated incremental, linear improvements?
- ° Is the prevalence of mental disorder in terrorist actors really as low as current popular opinion suggests?
- ° Is the development of a political grievance and mental disorder mutually exclusive?
- ° Are there processes in place to prevent an individual with an identifiable mental disorder from joining a terrorist group?
- ° Are there protective factors within group environments which would mitigate the onset of psychological distress caused by negative elements of 'being' a terrorist?
- ° Are terrorists really that different? Is it possible to empirically verify the presence of risk factors for mental disorder in the lives of terrorists?

This thesis aims to answer these questions, and supplement the current empirical knowledge base in a variety of ways. Utilising a unique set of data sources coupled with inter-disciplinary perspectives, this thesis offers the first comprehensive empirical analyses of the psychogenesis of terrorist involvement. It takes the starting position that the established logic of an act of targeted violence being either borne out of mental health problems or terrorism is likely to be a false dichotomy. Instead, we are likely to see a range of mental disorders across the highly complex process that is terrorist involvement.

This thesis contains seven chapters. The first two chapters outline the context to the empirical chapters presented in this thesis. Specifically, chapter one reviews the maturation of thought surrounding psychopathology and terrorism. By examining the reasoning, methods, and attribution of results, the chapter exposes limitations in the current knowledge base. Consequently, the chapter highlights how this current thesis provides a significant contribution to the existing literature. Chapter two provides a deeper examination of the empirical inaccuracies identified in chapter one, through comparative examination with the empirical developments in the more mature psychopathology in crime literature. It highlights the need to conduct valid, reliable, and rigorous empirical examination.

Chapters three to six present a series of quantitative and qualitative analyses of the data gathered for this thesis. These datasets are used to critically examine as-yet unverified assumptions highlighted in chapters one and two. Chapter three utilises two Large-N open source datasets to comparatively examine both politically and non-politically motivated individuals who act violently alone. The chapter specifically investigates how mental disorder affects thought processes and behaviour. Chapter four focuses on recruitment behaviours. Using interview and autobiographical data, I empirically measure whether recruiters deploy selection mechanisms to ensure that those with overt mental health problems are not recruited to a terrorist organisation.

Chapter five utilises a Large-N autobiographical dataset to assess protective factors within group settings, and using probability based analytical techniques, examines whether the nature of terrorist groups buffer the stressful experiences encountered. Chapter six also uses the Large-N autobiographical dataset, but examines risk factors for psychopathology, both whilst engaged, and following disengagement. It highlights the importance of examining events throughout a lifespan, and also uses probability based analyses to measure how sequences of events affect behaviour. Finally, chapter seven summarises the findings of the thesis, and discusses practical implications and avenues for future research.

As seen throughout this section, this thesis utilises a variety of psychiatric and political terminology. To provide clarification for what are often contentious expressions, the next section of this chapter provides a brief overview of the definitions utilised throughout the subsequent chapters.

# Terminology

There remains little consensus regarding definitions in terrorism literature, with many publications specifying the definition used for that particular investigation, and hundreds dedicated solely to the 'definition problem'. The concept of mental disorder too suffers from incongruities. The following section therefore summarises the definitional contentions in both fields, and outlines the rationale behind the chosen definitions for this thesis.

## Mental Disorder

As Raine (1993, p. 3) highlights; "experts in psychiatry and psychology have found it exceedingly difficult to outline an acceptable definition of psychopathology". This is further underscored in the Diagnostic and Statistical Manual of Mental Disorders- fifth revision (DSM-V) (American Psychiatric Association (APA), 2013), which acknowledges, that despite successive editions of the manual over 60 years, there remains a lack of complete description of all symptoms for most mental disorders, and current diagnostic criteria are the "best available" description of how mental disorders manifest (p. xli). The primary cause of this dilemma is the manifestation of symptoms. Although disorders are categorised as separate entities, symptoms diffuse across diagnostic boundaries, and not all symptoms which characterise disorders manifest in every case. Scientific advancements in neuroscience, brain imaging, epidemiology, and genetics have driven the maturation of study, and its evolution continues. This progress is reflected in the revisions of the diagnostic classification systems utilised during diagnostic processes.

### *Diagnostic Classification Systems*

The fields of psychopathology,[1] psychiatry, and psychology currently utilise two principal diagnostic classification systems: The aforementioned DSM-V (APA, 2013), and the International Statistical Classification of Diseases and Related Health Problems, tenth revision (ICD-10) (World Health Organisation (WHO), 2010). The World Health Assembly ministers

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[1] Defined as the "scientific study of mental disorders" (Collins English Dictionary, 2016), also used interchangeably with mental disorder (Raine, 1993).

from all WHO member states (194 countries) sanction the ICD-10, which encourages multidisciplinary usage. On the other hand, the assembly of the American Psychiatric Association approved the DSM-V, and usage is generally limited to U.S.-based psychiatrists. Considerable differences existed between the classification systems in earlier versions, partly due to the lack of international participation in the DSM. However, following dominance of the descriptive phenomenological approach (Husserl, 1970) of mental disorder diagnosis, alongside increases in collaboration between the two entities, these differences have substantially decreased. The recent adoption of ICD-10 coding inclusion in the DSM-V highlights these progressions (APA, 2013).

Despite these advances, entities in non-Western countries continually criticise the validity of both the DSM-V and the ICD-10 (Kessler & Üstün, 2008). To counter this critique, Kessler et al. (2008), and the WHO World Mental Health Survey Consortium (2004), present quantitative data concerning usage of ICD-10 survey measures in developing countries. This wide application highlights the validity of the ICD-10 as a measure for prevention implications, and is thus utilised as the diagnostic classification for this thesis. Table 0.1 displays the diagnostic categories used throughout this thesis.

**Table 0.1 ICD-10 Diagnostic Categories**

| Diagnostic Category | Disorders |
| --- | --- |
| F00-F09 | Organic, including symptomatic |
| F10-F19 | Disorders due to psychoactive substance use |
| F20-F29 | Schizophrenia, schizotypal, and delusional |
| F30-F39 | Mood (affective) |
| F40-F48 | Neurotic, stress related, and somatoform |
| F50-F59 | Behavioural syndromes associated with physiological and physical factors |
| F60-F69 | Adult personality and behaviour |
| F70-F79 | Mental retardation |
| F80-F89 | Psychological development |
| F90-F98 | Behavioural and emotional, with onset occurring in childhood or adolescence |
| F99 | Unspecified |

## *Defining 'Mental Disorder'*

The psychiatric and psychological literature utilises multiple terms to describe psychopathology. The most popular include; mental disorder, mental illness, mental health, mental deficiency, or mental retardation.[2] The literature often uses these terms interchangeably

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[2] The terms psychiatric and psychological are used interchangeably with 'mental' across each term. Psychiatric refers to the "relating to mental illness or psychiatry" (Collins English Dictionary, 2015),

but there remain differences in opinion regarding the 'correct' terminology. Table 0.2 highlights these differences using the Oxford Dictionary of Psychology (Colman, 2015) definitions.[3] The term mental illness is contentious among practicing mental health professionals as some consider personality disorders not to fall under the definition. Developmental and intellectual (mental retardation) disorders are also often considered outside the remit of the term mental illness. However, both the ICD-10 and DSM-V's classification systems include all these disorders (APA, 2013; WHO, 2010). Mental health is also an erroneous term, unless suffixed with nouns such as 'condition', 'problem', or 'issue'. Since the term mental disorder encapsulates all disorders under the ICD-10, and is currently widely accepted as appropriate, this thesis will use that terminology. Colloquial usage of terms such as crazy, nuts, mental, insane, subnormal, etc. only serve to feed the stigma surrounding individuals suffering psychiatric problems. Such terminology is therefore only contained in direct quotes and citations.

**Table 0.2 Terminologies Encountered in Psychopathology Literature**

| Terminology | Definition |
| --- | --- |
| Mental Disorder | "Clinically recognisable collection of symptoms or behaviour associated in most cases with distress or interference with personal functions. A deviant pattern of behaviour, whether political, religious, or sexual, or a conflict between an individual and society, is not a mental disorder unless it is symptomatic of a dysfunction in the individual." |
| Mental Illness | "Another name for mental disorder, with medical connotations that some consider misleading or tendentious." |
| Mental Health | "A person's condition with regard to their psychological and emotional well-being." |
| Mental Deficiency | "Another name for intellectual disability." |
| Intellectual Disability | "A neurodevelopmental disorder characterized by arrested or incomplete mental development, with onset before the age of 18, including deficits in both intellectual and adaptive functioning." |

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and psychological "of affecting, or arising in the mind; related to mind or mental or mental activity" (Collins English Dictionary, 2015).

[3] Note: as ICD-10 is being utilised in this Thesis, the ICD-10 definition for mental disorder only is quoted.

## Terrorism

### *Defining Terrorism*

Definitions of terrorism remain as contested as the subject matter of this thesis. Schmid (2011) highlights the number of definitions currently in use, listing over 250. Kruglanski and Fishman (2006) concede that this vast number of definitions is not exhaustive, and as terrorism is viewed as a highly emotive form of violence with questionable morality, definitions are inevitably led by personal motivations. Weinberg, Pedahzur, and Hirsch-Hoefler (2004) analysed 73 definitions from leading journals, offering a definition employing just five elements,[4] the lowest common denominator of consensus across the journals. Schmid and Jongman (1988/2005) investigated 109 definitions of terrorism, identifying twenty-two commonly referenced factors. They concluded that, on average, authors used eight factors, and the only consensus reached was that terrorism is a criminal act, often symbolic in purpose. Gibbs (1989) explained that most definitions of terrorism are elucidated neatly and briefly by authors, so not to tax readers. However, it is contradictory to concede to the complex nature of human behaviour, and then put forth a simple definition to appease. To bypass this pervasive issue, Barnes (2012) proposes using a definition that supports the purpose of the author.

To improve the field of terrorism research, a definition of terrorism must hold empirical applicability (Gibbs, 1989). Gill, Horgan, & Deckert (2014) proposed a definition of terrorism in their empirical analysis of lone-actor perpetrators. It encompasses purpose, motivation, action, and risk of actors involved in this type of violence, but does not mention the number of actors involved. As multiple actor types are empirically investigated in this thesis, the author will follow Gill et al.'s definition. Table 0.3 outlines the terminology used in this thesis, including the breakdown of definitions for different actors involved in terrorism.[5]

**Table 0.3 Definitions of Terminology regarding Terrorism utilised in this Thesis**

| Terminology | Definition |
|---|---|
| Terrorism | "The use or threat of action where the use or threat is designed to influence the government or to intimidate the public or a section of the public and/or the use or threat is made for the purpose of advancing a political, religious or ideological cause. Terrorism can involve violence against a |

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[4] "Terrorism is a politically motivated tactic involving threat or use of force or violence in which the pursuit of publicity plays a role." Weinberg et al. (2004, p.786)

[5] Problems in the literature also arise over the term given to lone-actors. Authors use varying terminology, including lone-actor, lone wolf, lone operator, freelancer, individual and solo terrorists (Borum, Fein & Vossekuil, 2012). The colloquial term 'lone wolf' is most often associated with these offenders, particularly in the media. However, the term will not be utilised in this thesis unless directly quoted from a source.

| | person, damage to property, endangering a person's life other than that of the person committing the action, creating a serious risk to the health or safety of the public or a section of the public, or facilitating any of the above actions." (Gill et al., 2014). |
|---|---|
| Radicalisation | "The process of adopting an extremist belief system, including the willingness to use, support, or facilitate violence, as a method to effect societal change." (Allen, 2007). |
| Lone-Actor | "An individual lacking any ties to a terrorist/violent extremist group and the subsequent materials. These individuals typically engage in violence in support of a group and/or ideology." (Horgan, Gill, Bouhana, Silver, and Corner, 2016). |
| Solo-Actor | "An individual who either (a) carried out the act of terror alone, but under instruction or (b) carries out the act through his/her own volition, but has had previous contact with terrorist/violent extremist groups and/or radical environments to receive planning and support." (Horgan et al., 2016). |
| Group-Actor | An individual involved in a group (three or more) involved in, or intent on carrying out acts of terrorism. |
| Mass Murderer | An individual who commits "a number of murders (four or more) occurring during the same incident, with no distinctive time period between the murders" (Federal Bureau of Investigation, 2005). |

In order to critically examine the field of psychopathology and terrorism, and enhance the current common misconceptions highlighted at the start of this segment, careful consideration has been made to data collection. Alongside consideration of definitions, this critical approach also included examination and evaluation of theoretical basis and methodology.

## Data

This thesis aims to rectify misconceptions and assumptions surrounding mental disorder and terrorism using valid empirical methods. This requires extensive consideration towards data collection. Chapters 1 and 2 will highlight that an extant lack of an empirical evidence base is the principal underlying flaw within the literature attempting to understand the psychology of terrorist behaviour. The continued deficiency of a data-driven evidence base concerning individual-level motivations and processes has stunted the emergence of scientifically valid theories of the psychological processes involved in 'being' a terrorist (Horgan, 2012). Silke (2001; 2004; 2009) explicitly highlighted that September 11th 2001 was a turning point for terrorism studies. The scarcity of empirical quantitative methods prior to this date provides explanation for the early assumptions regarding terrorist behaviour, which in turn hindered progression of understanding. Schmid and Jongman (1988, p. 177) estimated

that at the time of review, up to 80 percent of the literature lacked a rigorous research base, relying instead on narratives and descriptions, Noting:

> "Much of the writing in the crucial areas of terrorism research… is impressionistic, superficial, pretentious, venturing far-reaching generalizations on the basis of episodal evidence"

This figure did not vastly improve during the 1990s; 68 percent of research output was narrative literature reviews, with only 19 percent providing quantitative statistical analysis to support arguments (Silke, 2001). The post 9/11 period has witnessed an explosion of interest towards understanding the behaviour of individuals (Silke, 2004; 2009), but this has not led to a comparative increase in valid scientific evidence. In 2004, Silke noted changes in the literature (26 percent utilising statistics), but earlier flaws remained. By 2009, this number declined to 25 percent, but importantly there was a rise in the use of inferential statistics (6.9 to over 11 percent). Correspondingly low levels of rigorous research were identified by Lum, Kennedy, and Sherley (2006), who systematically reviewed thousands of peer-reviewed articles, noting that between 3-4% of those sampled employed empirical analysis on terrorism data or information. Describing the remaining 96-97% of sources as "thought pieces, theoretical discussions, or opinions" (Lum, et al., 2006. p. 491-492). Gunning (2007) explained that the adoption of problem-solving and dichotomous thought in terrorism studies has fuelled the empirical shortcomings. The enduring overreliance, acceptance, and reproduction of literature review methods with a drive towards seeking a "one-size-fits-all formula" (Ranstorp, 2006. p. 7) alongside a continuing reluctance towards improving the quality of research using empirical data to validate the presented theories and claims continues to hamper terrorism studies literature (Dolnik, 2013; Horgan, 2004, Young & Findley, 2011; Schuurman & Eijkman, 2013).

Scholars argue various epistemological and methodological reasons for the continuing lack of empirical research. From difficulties gathering primary data, an over-reliance on secondary data (Dolnik, 2013; Silke, 2001; Schuurman & Eijkman, 2013), limited methodologies for gathering data (Schuurman & Eijkman, 2013), a lack of conceptual clarity and commitment to the field (Gunning, 2007), funding for novel research, and a lack of experienced researchers (Silke, 2009). The above sections have addressed the issue of conceptual clarity, and the following discussion outlines the methodologies for gathering both primary and secondary data utilised in the subsequent chapters of this thesis.

This thesis utilises a combination of a small n primary data source, and large n secondary data sources to develop six unique datasets. The primary source is interview data gathered from former terrorists. Secondary sources include an extensive range of sources, including academic, autobiographical[6], and OSINT. This thesis uses, and builds on, two extensive open source datasets compiled by Gill et al. (2014), Gill (2015), and Horgan et al. (2016). Three novel datasets, constructed specifically for the thesis, are also utilised. Sources utilised to compile each dataset is outlined in the table below, and subsequently further explained.

**Table 0.4 Description of Dataset Sources**

| Primary Datasets | | Chapter Inclusion |
|---|---|---|
| Former Terrorist Interview | Three interviews with individuals formerly involved in terrorism (to remain anonymous). Each have been disengaged for an extended period of time. | 4, 5, 6 |
| Secondary Datasets | | |
| Group-Actor | Sourced from multiple secondary data sources, including; the Terrorist trial report card (The Center on Law and Security, 2006), Southern Poverty Law Centre (n.d.), Mother Jones (2013), The PIRA Militant Database (Gill & Horgan, 2013), Global Terrorism Database (n.d.), and open source materials including news articles, legal documents, and manifestos. | 4 |
| Lone-Actor & Mass Murderers | Built using the LexisNexis (n.d.) archive of open source information, news and academic articles, and public record depositories. Literature sources include media articles, sworn affidavits, indictments, manifestos, warrants, trial proceeding transcripts, trial memorandums, government and expert witness reports, and competency evaluations. | 3, 4 |
| Autobiographical | List of autobiographies taken from Shapiro's (2013) annotated bibliography. Extended through extensive online searches. Terrorist groups and ideologies crossed checked with TRAC (2014), Global Terrorism Database, (LaFree & Dugan, 2007), and U.S. Department of State (2014). | 4, 5, 6 |

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[6] Autobiographical information is often considered primary data. However, in this instance, due to the sensitive nature of many of the autobiographies, they are screened, and often redacted prior to publication. Therefore, without direct access to the authors, it is not possible to identify whether every autobiography investigated is true to the original intentions of the authors.

**Former Terrorist Interview Dataset**

The purpose of the former terrorist interviews was to gain insight into how terrorist recruiters and leaders evaluate characteristics of potential recruits, the choices they made with regards to personality and suitability for roles, and characteristics they deem suitable and unsuitable for a role in a successful operation. Interviewees were also asked about their own experiences of involvement, their trajectories through engagement and any psychological difficulties they encountered during engagement and in the post-disengagement space.

The sample included three former members of terrorist groups.[7] Two of which were specifically involved in the recruitment of others, whilst the third was able to offer insight into their former group's recruitment processes. Two individuals were based within the United States, whilst the third was interviewed in the United Kingdom. Interviewees were approached through gatekeepers, who had established relationships with the interviewees, between two years and three months prior to interview, this timeframe allowed for trust building between researcher and interviewee. Prior to confirmation of acceptance to interview, each potential interviewee was informed of the aims of the interviews, and the subject matter that would be discussed. As the interviewees were not currently directly involved in terrorist activities, but were likely to talk about their illegal activities, university ethics required comprehensive risk assessments to be conducted prior to approval. All interviews were subsequently conducted face to face. Each interview was conducted in a public place (hotel and coffee houses), and in two instances, due to the small size of the meeting location and the interviewee's concerns over the subject matter of discussion, the interviews were conducted on the external terrace of the location, both on public streets.[8] At meeting, the aims of the investigation were reiterated, and the interviewees signed an informed consent form prior to the interview. The interviews followed a semi-structured procedure, with a basis of specific questions regarding their early life experiences, engagement experiences, post-disengagement experiences, and their recruitment activities, and the recruitment activities of their organisation. This structure allowed for expansion if an interviewee felt comfortable speaking about a particular subject. Interviewees were also informed of their right not to answer any question they were not

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[7] Initially 10 individuals were approached for interview, but following non-repsonse and drop-out (which varied from immediate decline to interview, through to agreement and interview planning, with last minute schedule change conflicts affecting the interviews), the sample consisted of three individuals.

[8] This led to some concerns over a large amount of background noise on the recordings, but only a small portion of one interview (10 minutes) was disrupted by this. To counter this, the researcher contacted the interviewee via email to ask for a re-iteration of their statements during the 10 minute segment.

comfortable with. Interviews lasted between 2 and 5 hours, and at their conclusion, interviewees were again informed of their right to withdraw at any time.

## Group-Actor Dataset

This dataset was generated to examine the prevalence of mental disorder within group-actor terrorists. Actors were selected for inclusion if they had been convicted of terrorism related offences, including offences not specifically listed under terrorism acts, and if their offence was carried out under the auspices of a terror affiliated organisation[9]. Actors were chosen based on the location of their offence commission (U.S. and Europe), and their offences were committed between 1990 and 2014 (location and date matched to matched to other open-source datasets within this thesis). Individuals for which there was a very limited amount of information, for example; only name released, were removed, leaving information concerning 544 actors, with links to 85 designated terror organisations (cross checked with TRAC, 2014; Global Terrorism Database, 2007; and U.S. Department of State, 2014). Actor profiles, including dichotomous coding for mental disorder, were built using the LexisNexis archive of open source information, media articles, sworn affidavits, indictments, manifestos, warrants, trial proceeding transcripts, trial memorandums, government and expert witness reports, and competency evaluations.[10][11]

## Lone-Actor & Mass Murderer Datasets

The sample includes two unique datasets regarding 129 lone- and solo-actor terrorists, and 116 mass murderers. The two datasets were created to improve the empirical validity, long criticised in literature on both terrorists and mass murderers (Schmid & Jongman, 1988; Silke, 2001, 2004, 2007, 2009). Assigning individuals to one of the two categories proved problematic in certain cases. This is due to the fluidity of personal grievance guiding political ideology, and personal idiosyncratic ideology. When this occurred, categorisation was guided based on the definitions outlined in Table 0.3. The lone-actor dataset combines data gathered by Gill et al. (2014), Gill (2015), and Horgan et al. (2016), alongside diagnostic information gathered specifically for this thesis. Actors included were individuals, who were either convicted, or died in the commission of their offence in the US and Europe between 1990 and 2014. Non-violent and violent behaviours are recorded. Actors in the mass murderer dataset were coded by Horgan et al.'s (2016) research team, and were either convicted or died in the

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[9] In this context a terrorist organisation is defined as three or more connected individuals whose operation involves the support, planning, promotion and commission of acts of terrorism.

[10] Procedures for ensuring validity and reliability of diagnostics are described below.

[11] For access to this dataset, please contact the author.

commission of their offence in the US between 1990 and 2014. Each database was built using an extensive codebook.

The codebook was developed based on extensive reviews of literature and existing codebooks concerning individuals who commit a wide range of violent and non-violent offences, are victimised, and/or engage in high risk behaviours. It includes 200 variables spanning socio-demographic information, antecedent event behaviours, event specific behaviours, post event behaviours, and network related behaviours. Actor profiles were built using the LexisNexis archive of open source information (LexisNexis, n.d.), media articles, sworn affidavits, indictments, manifestos, warrants, trial proceeding transcripts, trial memorandums, government and expert witness reports, and competency evaluations. Variables were coded as categorical (yes, no, unknown, not applicable). Further analytical procedures utilised in this thesis combine 'no' and 'unknown', and instead examined the presence (confirmed in sources), not absence (unconfirmed) of variables. 'Unconfirmed' combines both 'unknown' and 'no' as one variable, as within the data sources, it was extremely uncommon for the reporting that an actor 'had not' participated in certain behaviours, only that they did participate.

Three independent coders coded each data observation separately. Observations were then reconciled using a two stage process (coder A with B, then coders A and B with C). When coder conclusions remained inconsistent, differences were resolved through consultation of the original sources, factoring in decisions regarding the reliability of sources, and the sources cited in the report. To aid this process, each source was plotted on a continuum of reliability (Figure 0.1).

As shown in Figure 0.1, court transcripts and associated documents were deemed most reliable, as these documents recorded finalisations of judicial decisions. Competency evaluations, sworn affidavits and indictments were deemed reliable, as these were carried out post arrest and prior to trial, when initial investigations had been made. Manifestos were deemed somewhat reliable, as the individual may not have been honest (or have insight; Erickson & Erickson, 2008). Warrants and Expert Witness reports were also reasoned to be somewhat reliable, as warrants are produced prior to arrest, and like Expert Witness reports are subject to unreliability and bias (Gutheil & Simon, 2004; Murrie, Boccaccini, Guarnera, & Rufino, 2013). Media articles were then placed on a separate continuum within the less reliable end of the spectrum; with personal opinion blogs at the lower end, and broadsheet newspapers at the upper.

| Least Reliable | Partially Reliable | Somewhat Reliable | Reliable | Very Reliable |
|---|---|---|---|---|

|  | Media Articles | | Manifestos | Competency Evaluations | Trial Transcripts |
|---|---|---|---|---|---|
| Internet Blogs | Tabloids | Broadsheets | Warrants | Sworn Affidavits | Trial Memorandums |
|  |  |  | Expert Witness Reports | Indictments |  |

**Figure 0.1 Reliability Continuum of Open Source Data**

## Autobiographical Dataset

This dataset was built using autobiographical information from individuals involved in terrorism. Autobiographical information is heavily reliant on autobiographical memory. Autobiographical memory is outlined as "defining identity, linking personal history to public history, supporting a network of personal goals and projects across the life span, and ultimately grounding the self in experience" (Conway, Pleydell-Pearce, and Whitecross, 2001, p. 493). It plays a critical role in the construction of individual identity, accounting for *what* occurs, and *when* in a lifespan. Given this, systematic analysis of terrorist autobiographies has the potential to offer understanding of psychogenesis, thought processes, reasoning, and social construction within a terrorist life-span, previously unaccounted for in open source data. Critical analysis of autobiographical information allows for examination of underlying behavioural processes over a life course, an advantage not afforded in prevalence studies (Altier, Horgan, & Thoroughgood, 2012; Altier, Leonard, Shortland, & Horgan, Forthcoming). Analysis of autobiographical data also limits participant reactivity via; removal of contamination effects found in observation studies, elimination of researcher-participant interactions, removal of expectancy bias from participants, and reduction of artificiality found in interview designs (Altier et al., Forthcoming; Krippendorff, 2004).

One issue with using autobiographical data to determine the mental state of individuals who have been involved in terrorism is the reliability of sources. Longevity of autobiographical memory is fragile, and fades over time. Rubin Wetzler, and Nebes (1986) highlighted a memory retention function of up to 20 years, with older memories less likely to be recalled. Berney and Blane (1997) assessed memory recall against historical records, highlighting that simple occupational and residential information was accurately recalled, but recall for more detailed information regarding illness and diet was less accurate. Berney and Blane examined a 50-year difference in recall, but other investigations have demonstrated failings in memory recall over much shorter periods. Walker, Vogl, and Thompson (1997) examined the effects of memory retention over three months, one year, and four and a half years. They concluded that memory retention faded over this short time span, and more so for unpleasant events.

Following this, is work on mood-state-dependent memory; a memory is more effectively recalled if the mood at recall matches the mood at learning. This has shown to be more effective when individuals are in a positive rather than negative mood (Ucros, 1989). As many of the autobiographies utilised in the chapter were written post-engagement, and recalled unpleasant, sometimes horrific events; where possible major incidents recalled in the autobiographies were cross-checked with historical records to identify potential inaccuracies.

A larger concern within the field of terrorism is the potential for bias in autobiographical accounts. Wilson and Ross (2001; 2003) highlight that autobiographical memory recall is skewed by the need for self-enhancement. It permits individuals to maintain favourable views of themselves and their actions. Scholars note that those involved in terrorism often attempt to re-characterise their actions as legitimate, and can use their writings to put forth their ideology and tactical suggestions (Cordes, 1987; Ross, 2004). Despite these concerns, autobiographical accounts have the potential to offer significant insight into the behavioural processes at any point in time during their life span, and can offer more revealing information than initially intended (Altier et al., Forthcoming).

Despite weaknesses, there are merits to using autobiographical data to investigate terrorist behaviour. Reminiscence bumps (Rubin, Rahhal, & Poon, 1998) occur in autobiographical memory recall due to the novelty and stability of event onset occurring in early adulthood. Events occurring in early adulthood have a higher chance of autobiographical recall in later life (Conway & Pledell-Pearce, 2000; Pillemer, Goldsmith, Panter, & White, 1988; Rubin, et al., 1998). Reminiscence bumps have been shown to occur more than once. Conway and Haque (1999) discerned that a second reminiscence bump occurred in adults who had personally experienced a period of national conflict between Pakistan and Bengal. Conway and Haque concluded that the unexpected secondary recall rises are accounted for by raised accessibility of memories; a product of privileged encryption of vastly self-relevant incidents.

Within this dataset, autobiographies were chosen for inclusion based on language (English and translated documents), timeframe (due to text availability, individuals active prior to 1900 were removed), admission of action, and availability. Due to constraints on time and resources, only documents that were in print or available through libraries were considered. Accounts which only provided a brief timeframe of a terrorist's life, were excluded (e.g. Donal Donnelly, Prisoner 1082: Escape from Crumlin Road, Europe's Alcatraz; Bobby Sands, A Day in my Life), as were texts that portrayed an overview of the organisation rather than an account of their personal journey (e.g. Naim Qassem, Hezbollah: The story from within). Given the specific focus of the chapters utilising this dataset, to be considered for inclusion, individuals

must have engaged in terrorist activity on behalf of a group. This left 97 autobiographical accounts from 91 individuals for analysis.[12][13]

Overall, the codebook contained 197 questions, including: Demographic information; early life experiences- including familial and interpersonal relationships, early life links to ideology and terrorism, education and employment, military and political service, victimisation, criminal behaviour, mental health problems, and recruitment; roles whilst engaged- including satisfaction and violence, activities and experiences whilst engaged- interpersonal relationships whilst engaged, ideological commitment and group activities, mental and physical health, and victimisation; disengagement- including reasoning, willingness, and post-disengagement experiences; and stressors- imprisonment, fear, burnout, dissatisfaction, victimisation, and relationships. These questions were derived from previous codebooks used for open source data collection in chapter three (Gill et al., 2014), autobiographical data collection (Altier et al., Forthcoming), and literature on terrorist disengagement.

Due to the sensitive nature of specific subjects, such as abuse and mental disorder, there was inherent lack of disclosure. In these cases, it was necessary to deduce possible occurrences from the available information. If a source spoke at length concerning their negative psychological state, but never directly gave any diagnostic information, this information was coded as 'psychological distress'.

Autobiographical coding included direct transcription from the source matched to the relevant question, with the date of the occurrence included, and a page number. Only information directly presented in the source was utilised, with the exception of whether the actor was still alive, where information was sought externally. If a quotation was appropriate for multiple questions, it was transcribed for each. Where no answer for a specific question was available in the text, it was noted as 'unknown', and where questions were not relevant (for example disengagement event questions, when an actor did not disengage), 'not

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[12] Appendix 2 hold the list of autobiographical evidence

[13] 12 individuals operated as government agents at some point in their trajectory. These individuals were included as the analyses within chapter five and 6 explore the psychological impact of living a terrorist lifestyle. These individuals also provided evidence for the impact of poor social connections, explored in chapter five. Given the complexity of when individuals acted as government agents, and their intentions, it was also difficult to pull apart levels of commitment to the terrorist groups; e.g. Sean O'Callaghan only moved toward agent work following a period of engagement where he genuinely acted on behalf of the Provisional IRA, Aukai Collins despite working for the CIA, still travelled to fight on behalf of terrorist organisations, and admitted that he used his position as an operative to facilitate this travel, whereas Larry Grathwohl entered the Weathermen as an undercover operative.

applicable'. This method produced a dataset of categorical answers (yes, unknown, not applicable). Direct transcriptions also allowed for qualitative expansion within chapters. This top-down approach to coding has advantages over other more subjective coding, such as grounded theory (Corbin & Strauss, 1990), which can be hampered by the subjective opinion of coders. The top-down, more objective approach suited the resource constraints faced within this thesis.

To ensure reliability, coding was also assessed by an independent coder, who had an in-depth knowledge of the coding procedure, but blind to research hypotheses. The codebook was discussed with the external coder, to refine the definitions for each variable. Once familiarised, the coder was presented with two completed example codebooks as examples. Reliability of coding was then assessed by having the coder independently complete 7 (7.2%) of the autobiographies. The reliability of coding achieved 82.1% agreement, and a corresponding Cohens Kappa of 0.73, suggesting substantial coding reliability (Viera & Garrett, 2005).

**Psychopathological Data**

Despite empirical advancements in terrorism research, mental disorder as a variable for explaining terrorist behaviour remains dichotomous; a trait long discarded in psychopathological research of related crime disciplines. Research focusing on mental disorder and crime has evolved significantly since deinstitutionalisation, this is thanks to improvements in diagnostic procedures (Monahan & Steadman, 1983), attribution (Areseneault, Moffitt, Caspi, Taylor, & Silva, 2000), and methods (Link, Andrews, & Cullen, 1992; Monahan et al., 2001).

One reason for the recent extant lack of consideration towards the role of psychopathology in terrorism literature concerns the longstanding perception that mental disorders play no role in terrorist behaviour. This fallacy has severely limited empirical development in the exploration for understanding terrorist behaviour. Recent research on lone-actors has highlighted the importance of utilising methods currently used in mental disorder and crime literature to acquire a deeper understanding the role of mental disorder in terrorist behaviour (Weenink, 2015). This thesis follows from Corner and Gill (2015), and performs research based diagnostic procedures to identify prevalence rates for mental disorders.

*Diagnostics*

This thesis develops on Corner and Gill's (2015) methodology. Mental disorder was recoded as multiple variables; concerning number, name, and diagnostic category. Within open source datasets, name and number of diagnoses were located in the open source literature, and source reliability and quality were considered when cross referencing across mediums to ensure the most valid diagnostic decision.

Diagnostic categories were assigned either from a confirmed diagnosis in the literature, or from described symptoms, cross referenced with diagnostic material. ICD-10 Diagnostic criteria for research (WHO, 1993) was utilised to aid allocation of diagnoses and symptoms to categories, resulting in a provisional diagnosis. For actors where explicit diagnoses and symptom details were not available, outcome was recorded as a diagnosis with a corresponding code of 11 (unspecified).[14]

A second tier of reliability, specific to diagnostic decisions, was developed (Figure 0.2). Here, the quality and reliability of the quoted source (Figure 0.1) was taken into account, and was also cross referenced across multiple sources. For example, a tabloid which directly quoted from a witness using a trial transcript was deemed more reliable than a tabloid which quoted a law professional, which was denoted as more reliable than a tabloid quoting a diagnoses from a neighbour or 'friend'. Also within media articles, number of claims of a diagnosis was taken into account, and this was then cross referenced with more reliable documents. Although mental health professionals with direct case involvement were considered the most reliable source, evidence has shown that even those directly involved in legal cases can be somewhat unreliable due to bias. Murrie et al. (2013) found psychiatric and psychological consults in legal cases were biased in their assessment of offenders depending on the side they represented in the proceedings. Those who believed they were assigned to the prosecution assigned significantly higher risk scores to offenders, than those who believed they were assigned to the defence. This highlights the reasoning for considering multiple sources when performing diagnostic assessment.

| Least Reliable | Partially Reliable | Somewhat Reliable | Reliable | Very Reliable |
|---|---|---|---|---|
| ← | | | | → |
| Neighbours | Other Family Members and Friends | Mental Health Professionals | Law Professionals | Mental Health Professionals |

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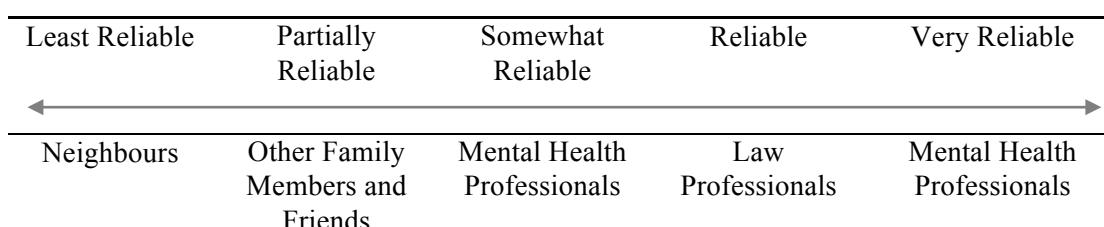
[14] For example, the only information pertaining to Houria Chahed Chentouf's mental state was that she had a history of self-harming behaviours, Michael Frederick Griffin refused psychiatric evaluation but it was noted that he had attended counselling, and Nidal Malik Hasan also refused a psychiatric evaluation at trial, but it was noted that he had paranoid and schizoid personality traits.

| | | Not Involved in Case | Directly Involved in Case | Directly Involved in Case |
|---|---|---|---|---|
| Other Individuals who met Actor | Media Professionals | | Close Family Members | |

**Figure 0.2 Reliability Continuum of Quoted Source**

To improve validity of the diagnostic procedure, two independent psychiatrists reviewed the same literature sources, and provided independent preliminary psychiatric assessments. These assessments, and any diagnostic outcome were cross checked for inter-rater reliability, and diagnostic outcomes were recorded.

### Prevalence

The prevalence of mental disorders within populations has received significant scientific interest (Kessler & Üstün, 2008). This is owing to difficulties in conceptualising and measuring disorders, and concerns over expenses and resource allocation of psychiatric and psychological care. The scientific capability of investigating psychiatric epidemiology increased post 1970's, following enhancements in sophisticated scientific measures. DSM operationalised models include the Diagnostic Interview Schedule (Robins, Helzer, Croughan, & Ratcliff, 1981), and the Epidemiological Catchment Area Programme (National Institute of Mental Health). The WHO followed suit in the late 1980's with a measure based on ICD criteria, the Composite International Diagnostic Interview (CIDI) (Robins et al., 1988). Unlike the DSM designed measures, subsequent surveys utilising the CIDI include more information regarding role impairments and disability, hold international representation, and subsequent inferences regarding prevalence, correlates, and patterns of mental disorder are deemed more valid (Kessler & Üstün, 2008).

The surveys highlight that a substantial proportion of each included population meet criteria for one or more mental disorders during their life. These disorders are often pervasive, with early onset, and cause significant impairment (Kessler & Üstün, 2008; Elisha, Castle, & Hocking, 2006; Fazel, Doll, & Långström, 2008; Feldman & Crandall, 2007). Kessler and Üstün (2008) note, that given the constraints in measuring mental disorder (exclusion of population with high proportions of severe mental disorders, e.g. homeless, survey nonresponse due to refusal by the mentally disordered, and systematic non-reporting following errors or failures) data are often considered conservative (Turner et al., 1998). Such constraints affect reporting. Kessler et al. (2008) demonstrate cross-national differences in surveys in their analysis of World Mental Health surveys in 17 countries. Prevalence for any disorder ranged from 12.0% (Nigeria) to 47.4% (United States) with an average prevalence of 27.43%.

To decrease the incidence of the aforementioned constraints, multiple psychiatric epidemiological studies were utilised to calculate the average prevalence rates of multiple disorders in the general population (Altarac & Saroha, 2007; APA, 2013; Boyle et al., 2011; Centers for Disease Control and Prevention, 2012; Fombonne, 2009; Hoek, 2006; Huang et al., 2009; Kessler et al., 2007; Kessler et al., 2008; Khan, Jacobson, Gardner, Prescott, & Kendler, 2005; Lubit, Bonds, & Lucia, 2015; Patra & Sarkar, 2013; Perälä, et al., 2007; Salvador-Carulla et al., 2011; Spiegel et al., 2011; Tagliaferri, Compagnone, Korsic, Servadei, & Kraus, 2006). Prevalence rates for each dataset were calculated using the following equation:

$$Prevalence = \frac{Number\ of\ individuals\ with\ a\ specific\ disorder}{Number\ of\ individuals\ in\ sample} * 100$$

This section has demonstrated long-standing discord in defining both psychopathology and terrorism. The lack of agreement unintentionally highlights a more profound and underlying disagreement in these two subjects. Over four decades of research has so far failed in multiple attempts to empirically verify whether mental disorder and terrorism are related. The literature has developed over five distinct periods, each differing in empirical evidence, mental disorders studied, and how terrorist involvement is conceptualised. The periods have not, however, demonstrated incremental linear improvement, with incorrect assumptions and interpretations of earlier research proliferating across periods. The next chapter of this thesis attempts to uncover these deep seated issues, and focuses on the convoluted history of psychopathology within terrorism literature.

# Chapter 1.  Psychopathology and Terrorism

## 1.1    Introduction

Psychopathological theories are very common in investigations of multiple types of non-political violent behaviour (Leistedt, 2013). The application of psychopathological theories to terrorist behaviour is therefore unsurprising. The terrorist suffering from a mental disorder is initially an attractive concept; the callous, destructive actions and behaviours involved in terrorism invite a stigmatising label. The study of the relationship between psychopathology and terrorist engagement spans over four decades. The field experienced five distinct periods of conceptual and empirical development, with the emphasis of psychopathology moving from the centre of explanations to the periphery. Many initial investigations postulated specific mental disorders as causal mechanisms (Cooper, 1978; Pearce, 1977). Later work correctly rejected the earlier causal assumptions, but perhaps incorrectly downplayed the prevalence of mental disorders amongst terrorists (Abrahms, 2011; Post 2005, 2007; Sher & Rice, 2015). There has been a small amount of recent investigations which have followed a middle ground, with psychopathology identified as just one factor in specific cases of terrorist behaviour.

Each of the five periods differ from one another in three domains; their empirical evidence, the specificity of mental disorders studied, and the conceptualisations of terrorist involvement. It is incorrect to assume, however, that improvements in these periods of development could be described as linear and incremental, as the false assumptions and interpretations of earlier work were still present in later periods. The first period offered psychopathy as a cause of terrorist involvement. Focusing on individual drives, and characterising terrorist involvement as a yes/no dichotomy, this period lacked empirical evidence. The second period moved the psychopathological focus away from psychopathy, and looked to specific personality types to offer explanation for terrorist behaviour. The third period synthesised the existing evidence, correctly questioning the suppositions of earlier periods regarding the causative nature and prevalence of mental disorder and specific personality types. Misinterpretations of these reviews led to the proliferation of now commonly held generalisations within terrorism literature. These generalisations, and a drive towards socialisation theories within period four subsequently helped to build a false dichotomy surrounding psychopathology and terrorist involvement.

Empirical innovations within the study of terrorism drove the fifth period. A few studies identified a middle ground between the staunch views adopted in periods one and two,

and the mistaken assumptions following the seminal reviews in period three. Period five was characterised by the understanding that terrorist involvement in a highly complex behavioural process, usually precipitated following numerous push/pull personal, social, and ecological factors, and involvement may differ across roles within and across groups.

This literature review provides a history of the study of psychopathology in terrorism, highlighting gaps in knowledge and providing direction for this thesis. First, I briefly delineate the core principles and assess the scientific rigour of studies in periods one and two. I then outline the arguments produced by the seminal reviews conducted in period three, identifying how these findings were subsequently misinterpreted and fed into the proliferation of socialisation theories within period four. The chapter then highlights the recent empirical innovations in the field of terrorism and mental disorder. The chapter concludes by explaining how this thesis will broaden our understanding of both terrorist involvement and psychopathology; moving from simple dichotomous thinking and reductionist approaches, and embracing empirical approaches that regard both topics as continuums.

## 1.2  Period One- Psychopathy

The concept of the terrorist as a psychopath or sociopath[15] became a popular notion during the 1970s, in the public and academia (Silke, 2003). This speculative opinion was derived mainly from popular culture, and the desire to attribute mental disorders to those committing such heinous, violent acts (Victoroff, 2005). Morf (1970) cites Dr André Lussier, one of the first psychiatrists to give opinion on the psychology of terrorists. Dr Lussier described individuals who cannot hold a positive role in society, craving glamour and revolt, with a misplaced assumption that their actions carry greatness. They are in a state of "mental urgency", craving an "illusion of power", which is satiated through attacking the strongest perceived enemy (Morf, 1970; p. 15). Hassell (1977; p. 5) hypothesised that those with a psychopathological tendency towards violence and destruction use terrorism as a "convenient" outlet for their impulses. Pearce (1977) also viewed terrorists as psychopaths, speculating that engagement in an extremist cause provided an outlet for underlying problems. Cooper (1978) contended that terrorists possess psychopathic personalities, and if the individuals were not engaging in political violence, they would use another outlet to satisfy their violent impulses.

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[15] Sociopathy and psychopathy have been interchangeably used in the literature following capricious overuse of the term psychopath meant sociopath was introduced into professional writings (Cooper, 1978).

Tanay (1987) agreed, describing terrorist acts to be simply psychopathic tendencies masked by political rhetoric, providing the individual with an excuse to aggress.

This impression holds "intuitive appeal", until one delves further into the underlying construct of psychopathy (Borum, 2004; p. 31). Those diagnosed with psychopathy (also referred to as anti-social personality disorder in recent revisions of psychiatric diagnostics) present with persistent disregard for, and violation of, the rights of others, disrespect towards the feelings of others, patterns of irresponsibility in many aspects of their life, and indifference and a lack of remorse for their negative actions (DSM-V, APA, 2013). These behaviours are at odds with the camaraderie and organisation terrorist groups demand to be successful. Being a member of a successful terrorist organisation requires unrelenting commitment to the ideology of the group, and staunch loyalty when faced with on-going adversity.

The discord between the above mentioned studies and clinical diagnostics spans from the labelling of psychopathy in the absence of rigorous clinical diagnostic procedures. Standard clinical procedures require direct access to an individual in a clinical setting for prolonged periods. These protocol were not followed in terrorism studies. Pearce (1977) utilised autobiographies, biographies, and media interviews as a determinant of diagnosis. In one case, he diagnosed psychopathy following the analysis of tattoos found on one terrorist's body. Kellen (1982) also used secondary source material, basing his conclusions on behaviour during media interviews. In the absence of rigorous clinical and empirical procedures, this reductionist view, where terrorists are characterised as abnormal purely on the nature of the attack behaviour, ignores the highly complex neurological, psychological, and sociological processes whereby actors become brutalised and desensitised to violence, and subsequently suffer psychological consequences as a results of terrorist engagement (Horgan, 2003).

The literature demonstrates that during early investigations into terrorist behaviour, psychopathy was the condition most commonly coupled with terrorists (Horgan, 2005). The attractiveness of this approach continues to permeate common assumptions, for example, at the United Nations general assembly in September 2014, UK Prime Minister David Cameron referred to ISIS as "psychopathic, murderous, brutal" (Press Association, 2014). However, in academia, the lack of valid concepts and objective empirical research, alongside advancement of psychological research concerning psychopathy, and development of a widely accepted validated measure (Psychopathy Checklist; Hare, 1985) aided the gradual demise of the psychopath-as-terrorist theory. This permitted other psychological theories to come to the fore.

## 1.3    Period Two- Personality

### 1.3.1    Psychoanalysis

In a continuing attempt to identify fundamental qualities of terrorist actors, psychoanalytical theories of terrorist behaviour largely replaced pathological approaches. This literature was built on clinical speculation and formulations, grounded in psychoanalysis, and initially focused on unconscious motives and impulses spanning from childhood maltreatment, holding roots in Freud's Oedipus and Electra complexes (Borum, 2004 cites Feuer; Horgan, 2003).

In psychoanalytical approaches, unconscious motives and impulses are alleged to influence human behaviour. A failure to resolve real or imagined conflicts during childhood interrupts the formation of a fully developed adult identity and personality, resulting in psychological problems (Erikson, 1968). In the majority of the psychological literature, psychoanalytical approaches have been superseded by more empirically oriented approaches (Taylor, 1988). This has not been the case in terrorism literature, with multiple investigations drawn to the initially attractive concept that early life and familial influences serve as a factor for terrorist engagement (Ferracuti & Bruno, 1981; Johnson & Feldman, 1982; Kent & Nicholls, 1977; Olsson, 1988; Pearlstein, 1991; Turco, 1987).

One of the earliest, and most consistently cited, investigations into terrorist personality was the comprehensive, state funded, German study, *Analysen zum Terrorismus*; which includes Schmidtchen's interviews and subsequent analyses of 250 terrorist careers (Jäger, Schmidtchen, & Süllwold, 1981). The results distinguished between personality types, across both leaders and followers. Süllwold, demonstrated that, within the cohort, 25% of actors had lost one or both parents in early life, and 33% reported severe conflict with their parents (Post, 1984). Post (1987; p. 24) strongly advocated these findings, arguing;

> "individuals with particular personality dispositions are drawn to the path of terrorism… A feature in common among many terrorists is a tendency to externalize, to seek outside sources of blame for personal inadequacies…Bollinger found psychological dynamics resembling those found in narcissistic borderlines. He was particularly struck by the history of narcissistic wounds, which led to a deficient sense of self-esteem and inadequately integrated personalities. The terrorists he interviewed demonstrated a feature characteristic of individuals with narcissistic and borderline personalities- splitting. He found that they had split off the de-valued parts of

themselves and projected them onto the establishment which then became the target of their violent aggression."

Attractive as the findings of the German investigation appeared to be, it is imperative to consider the lesser reported methodological issues, which severely affected both the validity and replicability of the results. Approached interviewees were extremely reluctant to meet with researchers (as interviewers were perceived as government agents). This severely reduced the subject pool the eventual results were based on. Those who agreed to be interviewed were often hostile and uncooperative. Despite being funded by the German Ministry of the Interior, local government units were habitually reticent to cooperate with the researchers. There was little effort to stratify findings across terrorist roles. There was no engagement of controls, and most of those approached were left-wing inspired offenders. Most importantly, however, the researchers conducted interviews on suspected terrorists, who had been apprehended, but not convicted of any offence (Crenshaw, 1986; Horgan, 2003).

Multiple papers attempted to use psychoanalytical theories to explain the cause of terrorist behaviour. Kaplan (1978, p. 247) wrote that terrorism is a response to poor self-esteem, used by an individual to counter impulses of self-contempt. By carrying out terrorist acts, it can "not only shore up a weakened ego; it can also shatter its walls altogether, freeing the self from what has come to be felt as a prison". Kellen (1982) drew on a single case study of German terrorist Hans-Joachim Klein, taken from two interviews given to media outlets (Kellen, 1979), to support the applicability of using psychoanalysis to understand terrorist behaviour. Kellen reported that Klein struggled against authority because he continued to unconsciously battle against his father, whom he had a poor relationship with. Kellen's evidentiary base consisted of one phrase in an interview "I would never talk about that man as 'father'" (Kellen, 1982; p. 17). Kellen also speculated that Klein later defected because the brutality he observed "must have reminded him of his father's real brutality and injustice" (p. 17). Post (1984) utilised psychoanalysis to explain terrorist behaviours across ideologies, explaining that the desire to resolve internal conflicts, and stabilise their identity is universal across terrorists, despite their stated motivations. Post argued that belonging to a group is a central tenant to effective identity formation. Effective interpersonal relationships, ideology, and strategies further develop this identity.

Although common practice in literature reviews is to refer to 'psychoanalysis', and briefly surmise the results of the *Analysen zum Terrorismus*. According to Victoroff (2005), it is possible to separate the psychoanalytical model and its highly interwoven theories according

to emphasis, revealing four distinct approaches; identity, narcissism, paranoia, and absolutist thinking. Each will now be explained in turn.

### 1.3.1.1 Identity

Leading from the Freudian concept that self-determination may be inseparable from destructive impulses (Victoroff, 2005), identity theory proposed that aspirants for terrorism are young, lacking in self-esteem, and have desperate desires to consolidate their identities (Olsson, 1988). As Erikson (1959) theorised; at a crucial adolescent stage of identity formation, ideologies help an individual to self-define, consolidating their adult identity. Identity theory was the basis for Böllinger's (1981) interpretations of interviews in the *Analysen zum Terrorismus* study. Böllinger asserted that over-controlling parents prevented an individual from developing autonomy, causing an identity crisis, which made violence irresistible. In attempts to resolve the identity crises, individuals turn to the collective identity and ideology of a group to experience purpose (Crenshaw, 1986), and find their own identity (Post, 1984). Ferracuti (1982) furthered the work of Böllinger, suggesting that a product of identity crisis is a sensation of isolation, and engagement in terrorist violence is an adaptive response to the torment. Taylor and Quayle (1994) reported on unstructured (and according to Victoroff, undocumented) interviews with European and Islamic terrorists. They emphasised that political violence was enacted when an individual was seeking purpose and self-worth.

More modern adaptations of identity theory have attempted to supplement the earlier investigations. Schwartz, Dunkel, and Waterman (2009), define two types of individual outcome, authoritarian foreclosure, and aimless diffusion. According to Schwartz et al., an individual adopts and internalises group ideals, either actively (foreclosure) or passively (diffusion) without question. Individuals who experience foreclosure develop a committed identity through identification with others, adopting the standards and expectations within the group. Such individuals are more often recruited to organisations. Diffused individuals are vulnerable to recruitment and manipulation, as an ideology provides a sense of purpose when searching for direction in their "unguided life" (Schwartz et al., 2009, p. 545). They proposed that group leaders rarely allow diffused individuals full membership, instead using them for purposes such as suicide attacks. Schwartz et al. go on to give examples of terrorists who, in their opinion, were diffused individuals, including José Padilla, John Walker Lindh, and Adam Gadahn. According to Schwartz et al., these individuals were unable to form a complete identity, and sought out terrorist groups to resolve their crises.

According to Victoroff (2005, p. 23), it has also been hypothesised that those in an identity crisis are also motivated to join a group through the desire to "embrace the intimate

tutelage of a charismatic leader- a form of anaclitic devotion". This consuming attachment to a leader is purported to span from an innate desire for an effective parental figure. Failure in parental attachment is also the underlying casual factor for terrorist engagement in narcissism theory – the subject of the next sub-section.

### 1.3.1.2 Narcissism

Based on Heinz Kohut's theory of Self Psychology (Baker & Baker, 1987), the premise of narcissism is embedded in a failure of maternal empathy leading to damage of self-image (Victoroff, 2005), which subsequently leads to an extensive requirement for validation and recognition by others. Narcissistic impairment prevents the development of adult identity and morality, leading to an overvaluation of self, and devaluation of others (Borum, 2004). Narcissists are characterised by volatile self-esteem, interpersonal problems, and aggressive responses to threats to their ego (Hogg & Vaughan, 2005). As in psychoanalytic theories, early life conflicts affect individuals later in life in the form of narcissistic injuries. These injuries are purported to prompt anger towards targets which the individual views as responsible.

Multiple theorists drew on Süllwold's (1981) conclusions in *Analysen zum Terrorismus,* emphasising that narcissism was crucial to understanding terrorist behaviour. Kent and Nicholls (1977) pointed toward parental abuse causing a "murderous rage" in the child with terrorist groups exploiting the resulting psychological vulnerabilities. Crayton (1983; cited by Borum, 2004) explained that charismatic group leaders draw narcissistically vulnerable individuals to the group, and 'narcissistic rage' prompts an aggressive response to perceived injustice. Crayton went further, asserting that group processes drive narcissism, enhancing collective self-image. Post (1984, 1986, 1987) remained a strong advocate for this school of thought, emphasising the importance of "psychosocial wounds", which predispose individuals to pursue affiliation with like-minded individuals. Using a single case study, Billig (1985) correlated the inability to identify with a father figure with becoming engaged in terrorism. Böllinger (1985) emphasised the role of deviance within the familial system in terrorists' early lives. Pearlstein (1991) offered nine case studies, analysing autobiographies, familial autobiographical accounts, juror diaries, and one interview. Pearlstein subsequently concluded that that terrorists use narcissistic rage when undertaking action, and asserted that "in 90 percent of political terrorist case studies, narcissistic disappointment plays a critical psychobiographical role" (p. 7). De Cataldo Neuburger and Valentini (1996) suggested that Italian female militants' early life experiences of oppressive fathers and weak mothers played a crucial role in their decision to engage in violence. Akhtar (1999) concluded that terrorists are deeply traumatised, as they suffer from chronic emotional and physical abuse as children, which causes an inherent mistrust of others. DeMause (2002) and Baruch (2003) give similar

analyses of jihadist terrorists, asserting that abusive and/or sexually repressive misogynist family environments put the individual on the path towards radicalisation. Berko (2007) consistently explained that suicide bombers are raised in broken homes.

As evidenced by the volume of interest over time, the intuitive plausibility of narcissism theory is often used as a premier psychoanalytical explanation for terrorist behaviour. However, the conclusions emerging the above investigations are generalised and lack empirical validity, and the difference in prevalence of narcissistic traits between terrorists and the general population continues to remain undetermined.

### 1.3.1.3 Paranoia

Post (1998, 2004) based his paranoia theory on his interpretation of *Analysen zum Terrorismus*, citing evidence of narcissistic injuries, splitting, and externalisation. Paranoia theory posits that projection is the salient characteristic of terrorist psychology. Projection, according to psychoanalysis, occurs when an individual with damaged self-image (due to narcissistic injuries) persists in the infantile phase of psychological development (Kohut, 1972, 1978). The individual assigns unbearable internal feelings to an external source, in order to idealise the good self, and remove the bad self (splitting). The individual is unable to confront their own inadequacies, and places blame for their own inner weakness onto others (externalisation) (Post, 1998). According the Robins and Post (1997), this is the "paranoid-schizoid position". Post explains that this paranoia fills the terrorist with suspicion, and they are compelled to commit violent acts in an attempt to remove the damaged self, justifying this behaviour as "self-defence" (Robins & Post, 1997, p. 146). Paranoia theory provides a developmental model, explaining why only a small minority of individuals with a grievance use terrorism, and why terrorists kill individuals who do not necessarily pose a direct threat (Victoroff, 2005).

Alongside the *Analysen zum Terrorismus* Post (1998) also uses his own interpretation of earlier research as evidence for paranoia theory. Clark's (1983) study of social backgrounds of Basque separatists, Euzkadi Ta Askatasuna, is utilised as evidence that terrorists suffer from high levels of social marginalisation in their youth. Post suggested that the high levels of mixed heritage among the terrorists is indicative of attempts to "out-Basque the Basques" (Post, 1998, p. 29), projecting their hatred of their Spanish heritage onto the Spanish people. Although the West German investigation was the basis for Post's development of paranoia theory, there were no formal measurements of paranoia employed. This alone fundamentally challenges the applicability of the theory. Post's interpretation of Clark (1983) also suffers the same error. Sageman's (2004) evaluation of terrorist biographies provided further criticism. Sageman

concluded that nine out of ten cases showed no evidence of paranoia. Much like identity and narcissism theories, until rigorous, and valid empirical investigation is pursued, paranoia theory remains an idealistic attempt to explain terrorist behaviour.

### 1.3.1.4 Absolutism

Lifton (2000, 2004) used an intensive case study (including interviews with low level members and external observer accounts) of Aum Shinrikyō to develop absolutist theory. Much like other psychoanalytic accounts, Lifton explained that individuals resolve internal conflicts by attempting to 'find' oneself within a group. If an individual is within a group that they perceive as suffocating, and damaging to their internal self (family, school, work), they seek to join a new group, which may be more totalistic than the original. Highly totalistic groups, Lifton explains, can impair perception of characteristics of outside entities, and induce perceived persecution. Resentment towards the host group, however, is internalised and suppressed.

In-group resentments are suppressed because, according to absolutist theory, individuals suffering from internal conflicts and a weak identity are drawn to absolutist groups through the seductive charms of highly charismatic leaders (Crenshaw, 2000). The mantra of such groups encourages in-group/out-group comparisons, leading to paranoia concerned with group annihilation, leading members to defend their psyche against inevitable violence through denial, psychic numbing, or isolation of affect (Victoroff, 2005).

Despite the intensity of Lifton's assertions, absolutist theory is based on subjective, culturally specific, theory driven interpretations of largely unstructured interviews with a non-representative sample of individuals. The postulations regarding fantasies of world domination and pathologically dependent behaviours toward leaders, can only explain a small number of individuals and actions.

As evidenced by the above theories, there was a definitive lack of empirical rigour in literature published following *Analysen zum Terrorismus*. Studies made many persuasive arguments concerning personality traits of terrorists, consistently citing the German study, yet failed to provide further valid or reliable evidence to support their claims. Silke (1998, p. 67) condemned this attribution bias, explaining the strand of research has done little but "taint terrorism with a pathology aura". Despite the popularity of the notion that terrorists were often reticent, psychologically damaged youths, psychoanalytical theories, much like the psychopathological assumption of period one, the unfalsifiability and circular logic of

suppositions which are based on conjecture[16] with no empirical basis, only served to stagnate the field of terrorism studies. This is exemplified in Morf's (1970) clinical examinations of Front for the Liberation of Quebec prisoners; which, whilst providing support from narcissism theory, highlighted failings inherent in this research strand: No statistical data, no standardised psychological instruments, and no control group (Victoroff, 2005).

## 1.4   Period Three- Synthesising the Evidence Base

At the end of the 1990s and in the early years of the new Millennium, a series of extensive scholarly outputs synthesised the existing evidence surrounding the psychopathological and personality-driven explanations of terrorist involvement (Borum, 2004; Horgan, 2003, 2005; Victoroff, 2005; Silke, 1998, 2003). These reviews were largely in agreement. Collectively, they questioned the "empirical, theoretical and conceptual foundations" of earlier studies (Horgan, 2003, p. 23).

The reviews argued that theoretical errors spanned from an explicit focus on psychopathy and/or personality as a cause of terrorist behaviour. This bias of using dispositions as the principle explanatory variable for behaviour, underestimates the impact of the situational context within which the individual behaves. The research, the reviews contended, in periods one and two placed too much emphasis on the actions of the terrorist, rather than the highly complex processes through which the individual became a terrorist. Focusing on the drama of the act, the investigators sought heuristic, dramatic explanations. Which, when combined with a focus on the individual in isolation, risks disregarding the omnipresent influence the immediate and distal social environment has on an individual's behaviour (Berger & Luckmann, 1966). Therefore, according to the fundamental attribution error, personality variables alone hold little explanatory or predictive value in determining who becomes a terrorist. The reviews collectively agreed the claim that psychopathy or personality causes terrorist engagement is faulty. This is not to say that psychopaths and individuals with problematic personalities do not become terrorists, but the explanations of periods one and two are too simplistic and unsupported to imply that these factors cause the initial engagement with terrorism alone.

On empirical grounds, the reviews collectively agreed there to be little evidentiary support for the argument that psychopathy drives terrorist behaviour. For Horgan (2003, p. 6),

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[16] As Victoroff (2005, p. 25) notes "it is impossible to test any hypothesis that attributes covert adult psychodynamic forces to covert psychosexual processes postulated to have occurred decades before, in infancy"

"there remains little to support the argument that terrorists can or should be necessarily regarded as psychopathic owing to the nature of the offences committed". The reviews also questioned the empirical underpinnings of the personality strand of research. Horgan (2003, p. 10) highlights that "attempts to assert the presence of a terrorist personality, or profile, are pitiful". Silke (2003, p. 32) similarly outlines, "quite simply, the best of the empirical work does not suggest, and never has suggested, that terrorists possess a distinct personality or that their psychology is somehow deviant from that of 'normal' people". Victoroff (2005, p. 12) explains that "the conclusion, at least on the basis of uncontrolled empirical psychological studies…has been that terrorists do not usually exhibit what we refer to as Axis I or even Axis II psychiatric disorders". Victoroff (2005, p. 3) characterised the research in periods one and two as "theoretical speculation based on subjective interpretation of anecdotal observations". Critical evaluation of the reviewers' conclusions reveals that psychopathy and personality as a cause of terrorist behaviour were found to be empirically unsupportable.

The reviews were not asserting that people with pathological and personality disorders do not become terrorists. Horgan (2003, p. 7) outlines that "perhaps, if the opportunity ever arose to examine actual terrorists in clinical settings, there might be some evidence to link at least a few of the 'sore thumbs' with pathological disorders." Instead, the reviews argued that the prevalence rates of various disorders do not differ from those found in general populations. Horgan (2003, p. 17) cites McCauley (1991, p. 132) as being "precise" in his statement that "[this] is not to say that there is no pathology among terrorists, but the rate of diagnosable pathology, at least, does not differ significantly from control groups of the same age and background". Silke (2003, p. 32) agrees, asserting that he "is not saying that mentally unbalanced or pathological personalities are never present in terrorist organizations". Victoroff (2005, p. 14) observes that "sociopaths may sometimes be among the terrorists". It is also worth noting, the reviews also agree that when psychopathic members are present within a terrorist organisation their personalities are suited to specific roles both within (Horgan, 2003; Victoroff, 2005) and on the fringes (Silke, 2003) of the movement.

Adding further weight to the above assertions regarding disorder prevalence, the reviews continually cited studies which affirmed the lack of difference in prevalence between terrorist and control groups. Horgan (2003, p. 18) noted a "persistence of evidence to suggest terrorist normality". Silke also utilised the word 'normal'. For example, "most serious researchers in the field at least nominally agree with the position that terrorists are essentially normal individuals" (1998, p. 53). The term 'normal' was used to denote that terrorists had the same likelihood of experiencing particular mental disorders as an average person on the street. They did not, despite subsequent assertions to the contrary, mean terrorists never suffer from

mental disorders. Indeed, a couple of the reviews even cite the Lyons and Harbinson (1986) investigation of Northern Irish terrorists, where 16% suffered from a mental disorder.

These reviews became highly influential within the literature, amassing over 1600 citations at the time of writing. Their publication also coincided with a large uptake in the number of published terrorist-related articles (Silke & Schmidt-Petersen, 2015). However, as alluded to previously, many of these citations misrepresented the reviews and their finer points surrounding mental disorder. Whereas the reviews often used very specific language, the citations generalised to a higher level of abstraction, overlooking many of the nuances. This led to the false assumption, that is still commonly held, that there was no relationship between mental disorders and terrorist involvement. This had major implications for both government practice and media portrayal of terrorist and mass casualty events. The intention of the reviews was not to halt studies of mental disorder and terrorist involvement. Rather, they intended to highlight the problems with existing studies, and to argue for less simplistic linear assumptions, and more empirically rigorous investigations.

Many of the citations of these reviews made four common errors. These errors span from (a) how mental disorders were characterised (b) the conflation between the mental disorder and irrationality (c) how the terrorist is characterised and (d) the dismissal of mental order presence. Each of these errors will now be examined in turn.

### 1.4.1    Characterisation of Mental Disorders

The studies conducted in periods one and two examined specific mental and personality disorders. The seminal reviews, each conducted by a psychologist, are as equally careful in the language they use. For example, Horgan's (2003) study correctly questions the empiricism of studies which claim a relationship between psychopathy and terrorist involvement. The chapter is fundamentally about psychopathy, not about mental disorders in general. 'Psychopathy' is mentioned 11 times, 'mental illness' just twice. Psychopathy is a very specific diagnosis of mental disorder, with specific impairments of self and interpersonal functioning, and pathological personality traits including antagonism and disinhibition not found across other disorders. Victoroff's (2005) evaluation is equally precise, explicitly referring to Axis I and Axis II disorders.

However, much of the nuance, and specificity of periods one to three was lost in the citations the seminal reviews accrued. In many cases, citations erred toward generalisations such as 'mental illness'. In other cases, researchers (largely non-psychologists) used the term

'psychopathology' (the scientific study of mental disorder), when referring to conclusions regarding psychopathy. In using such sweeping (and in some cases incorrect) generalisations, these citations show clear evidence of misunderstanding the earlier reviews, alongside a disregard for the complexity of mental and behavioural disorders.[17] Table 1.1 highlights a small selection of these misconceptions. Each quote in table 1 cites at least one of the seminal reviews to back up their position.

**Table 1.1 Misinterpretations of the Literature Reviews**

| Author | Quote (emphasis added) |
|---|---|
| Abrahms (2011) | "Psychological assessments of terrorists indicate that they are *cognitively normal*" |
| Gupta (2012) | Terrorists "by an large, seem to be *free of diagnosable maladies of the mind*" |
| Jones and Bhui (2008) | "We can be fairly certain that most of these individuals will not *meet international diagnostic criteria for mental or personality disorders*" |
| Kruglanski and Fishman (2009) | "The majority of such research points to the *normality* of individuals involved in terrorist organizations" |
| Lakhani (2013) | There is little evidence to suggest that the vast majority of terrorists *hold any disturbed psychological symptoms*, or that there exists an identifiable 'terrorist personality' |
| Lutz and Lutz (2013) | "Terrorists are *not normally crazy* or suffering from *mental problems*". |
| O'Gorman (2010) | "Every study that has seriously examined the psychological state of terrorists finds that they fall within the *bounds of normality*" |
| Post (2005a) | "The search for *psychopathological origins* is fruitless" |
| Sher and Rice (2015) | "If the practices of certain terrorist organizations may be generalized to the practices of all, it appears that terrorist organizations reject recruits with *signs and symptoms of psychopathology*" |
| Spaiij (2011) | "Scholars such as Post and Horgan argue that, overall, terrorists should not be regarded as suffering from *any identifiable psychopathology*" |

### 1.4.2    Conflation of Mental Disorder with Irrationality

The lack of specificity largely steered the second widely held misconception; the conflation of mental disorder with irrationality. The seminal reviews largely proposed that, for a variety of reasons, psychopaths are likely identified, and then rejected in a group's selection process. Many citations then made the uninformed assumption that this practice of rejection is applicable to all mental disorders, and due to irrationality. Zartman (2007, p. 246) assessed

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[17] The current version of the DSM (V), and the ICD-10 both list over 300 discrete diagnoses

terrorists as "not mad but highly rational and strategic calculators". Post et al. (2009, p. 14) cites both Horgan (2005) and Silke (2003) whilst making the claim that "terrorist groups attempt to screen out emotionally disturbed recruits". Wilson, Scholes, and Brocklehurst (2010, p. 691) stated, "terrorists are not characterized by mental disorder… [and instead are]… like many other criminals… rational decision makers". McDonald (2013, p. 38), cites Silke, claiming that "people with psychological disorders do not make good terrorists. They lack the discipline, rationality, self-control and mental stamina needed if terrorists are to survive any length of time". In a recent textbook on forensic psychology Taylor (2015, p. 88) writes that "there is little research to show that terrorists are mentally disturbed, which makes sense, as such an individual would be a liability to the cause".

These assumptions span from both the aggregation of terminology, and the inherent stigmatisation surrounding mental disorders. 'Rationality'[18] is only affected in a very specific subgroup of acute symptoms across specific disorder types. The majority of individuals with a mental health diagnosis do not suffer breaks from reality, and are capable of rational decision-making. However, many of the citations disregard this: "It has often been assumed that mentally ill assailants… have motives so irrational that they cannot be understood or have no motives other than their illness" (Fein & Vossekuil, 1999, p. p. 328).

It is only with the rising interest and investment in empirical methods that this fallacy is being disproven. Fein and Vossekuil (1999) found evidence of mentally disordered individuals planning, and executing attack related behaviours as effectively as non-mentally disordered actors. Borum (2013) noted multiple mentally disordered lone-actors who were capable of sophisticated attack planning. Gill, et al. (2014) highlighted that lone-actors diagnosed with a mental disorder frequently display rational motives and engage in rational and purposive pre-attack behaviours. Corner and Gill (2015) empirically compared samples of mentally disordered and non-mentally disordered lone-actor terrorists. They concluded that individuals with a mental disorder were just as (and in some cases more) likely to engage in a range of 'rational' pre-attack behaviours as those who were not. Mentally disordered actors were more likely to; seek legitimisation for their intended actions, stockpile weapons, train, carry out a successful attack, kill and injure, discriminate in their targeting, and claim

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[18] Defined as "the state or quality of being rational or logical" and "the possession or utilization of reason or logic" (Collins English Dictionary, 2016). Rationality is often a contentious term, as it is difficult to determine if one individual's perception of rationality and rational behaviours matches another individual who has a different belief system. This is particularly pertinent within mental disorder, as although individual's with psychosis, may appear to carry out irrational behaviours, these behaviours may be seen as a rational means to an end due to their state of mind (rationality-within-irrationality, Link & Stueve, 1994). This thesis uses inverted commas around rationality (and irrationality), to highlight the perception of rationality within terrorism literature.

responsibility. Most of these traits are typically viewed as 'rational' behaviours and essential for success.

### 1.4.3 Aggregation

Alongside the simplification of mental disorder, the citations also regarded terrorism, and more importantly what it means to be a terrorist, in an aggregated, generic fashion. They often failed to acknowledge that being a bomb-maker may be different than being a bomb-planter; that being a foreign fighter may differ from being a terrorist attacking the homeland; that being a terrorist financier may be different than being a gunman; and that being a lone-actor may be different than being a group-actor. Their behaviours, roles, functions, expectations, and experiences may differ across recruitment, (self-) selection, routine activities during engagement, and ultimately disengagement. This almost universally adopted position is unexpected for two reasons. First, it is a sign of regression in the study, early investigations were often very specific about terrorist roles. For example, Strenz (1988) identified three distinct roles within leftist groups, which suited distinct personality types: The leader, dedicated to the cause, with few signs of self-interest, and no mental disorder; the activist-operator, opportunistic, with an extensive criminal history, antisocial personality traits, and lack of empathy toward others; and the idealist, harbouring a weak personality, easily exploitable by the strong personalities of leaders, desperate and dependent. Post (1987) emphasised the importance of ascertaining the locus of power and authority when conducting structural analyses. He contrasted autonomous cells, where the leader is a visible entity ("emotional hothouses, rife with tension"), and structured organizations, where leaders sit above cells, and hold higher authority ("decisions are developed outside the cells") (Post, 1998, p. 32). Somewhere in the subsequent upsurge in terrorist related publications, nuance in the depiction of terrorist roles became lost with the exception of a few studies. Second, one of the highly influential literature reviews implored for such disaggregated approaches. Victoroff (2005, p. 5) argued that "terrorist groups typically exhibit hierarchical organization, with various roles…[that]…may attract individuals with different predispositions who perhaps play their roles because of profoundly different psychological factors" and that "any empirical study claiming to characterize 'the psychology of terrorists' might be very misleading if it fails to stratify its findings according to level and role".

### 1.4.4 Dismissal of the Presence of Mental Disorders

Finally, many citations assume that because of the lack of empirical evidence inherent in the early studies, there is a complete lack of mental disorder prevalence within terrorism.

They therefore conclude that mental disorder cannot be linked to why (alongside a multitude of other factors) specific individuals in some groups engage in terrorism. The reviews illustrated the lack of scientific rigor behind the studies of periods one and two. They did not, however, point toward scientific evidence to the contrary. The investigations that are regularly cited as confirming their position against a role for mental disorder, are potentially not as scientific or rigorously examined to the same degree as those confirming a relationship. Merari (2010, p. 253-254) eloquently sums up this misconception:

"By and large, the opinion that terrorists do not have a common psychological profile rests on the absence of research rather than on direct findings. A scientifically sound conclusion that terrorists have no common personality traits must be based on many comparative studies of terrorists from different countries and functions, using standard psychological tests and clinical interviews. As such studies have not been published, the only scientifically sound conclusion for now is that *we do not know* whether terrorists share common traits, but we cannot be sure that such traits do not exist."

## 1.5    Period Four- The Power of the Group

A failure to attribute pathology or specific personality types to terrorist behaviour led to a change in direction in the investigations of terrorist behaviour. Süllwold's clinical observations of Schmidtchen's findings in the highly influential *Analysen zum Terrorismus* (Jäger et al. 1981) concluded the relative lack of mental disorder in their sample was suggestive of the power of the group. The strand of research advocating this conclusion drew upon sociological and social psychological theories.[19] They spurned psychopathology and personality by inferring (without empirical evidence) that those with a mental disorder are simply not recruited. This research field has now dominated the literature for over three decades. Previous supporters for the theories of periods one and two readily assumed the lack of empirical evidence from earlier literature was indicative of terrorists being 'psychologically normal' (Post, 2005; Post et al., 2009), and the power of group mind was championed. For example, Post (2005; p. 7) noted: "a clear consensus exists that it is not individual psychology,

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[19] Victoroff (2005) cites common sociological theories included variants on Social Learning Theory (Bandura, 1973), Frustration Aggression Hypothesis (Dollard, Doob, Miller, Mower, and Sears, 1939; Berkowitz, 1965; Friedland, 1992), Relative Deprivation Theory (Gurr, 1970), Oppression Theory (Fanon, 1965; Whitaker, 1972; Schmid, 1983), National Cultural Theory (Weinberg & Eubank, 1994). For an in depth discussion of each theory and its applicability to terrorist behaviour, please see Victoroff (2005).

but group, organizational and social psychology, that provides the greatest analytical power in understanding this complex phenomenon".

This rise in sociological theories of terrorist engagement may go some way to explain the misinterpretation of the seminal reviews. The rapid willingness to accept sociology as the silver bullet explanation for terrorist behaviour perfectly mirrors the fall of psychopathy theories during the wave of interest in personality. As Reich (1998, p. 262) emphasised, views are quick to alter when presented with the promise of a singular explanation for behaviour:

"Psychological accounts of terrorism are replete with explanations that ignore or blur the variety and complexity… a product of loose and weak thinking, a disregard for the need for evidence, and the habit, unfortunately endemic in so many areas of psychological discourse, of having a single idea and applying it to everything."

Group theories of terrorism fixed upon psychological heterogeneity (Rasch, 1979) and group-induced homogenisation. According to these theories, each individual has a different personal justification for entering into an organisation, however when they become part of a group, the collective moderates their behaviour. A sense of collective is said to overwhelm an individual, providing validation for actions carried out whilst part of the group (Post, Sprinzak, & Denny, 2003). Sageman went so far as to argue that social bonds are more important than ideology, and concluded that terrorism was a group phenomenon, with examination of individual characteristics holding no validity (cited by Rotella, 2004). Sprinzak (1990) provides an early example of this. He reviewed case studies from the Weatherman organisation, concluding that group dynamics, rather than individual psychology were the driving force behind terrorist actions. McCauley (2002) explains that terrorist actors within a group follow a moral trajectory, killing for cause and comrades. When examining individuals involved in groups, descriptions of self-sacrifice resulting from personal problems lack persuasive power. McCauley encourages reformulation of views of self-sacrifice to anger over group insult. Post, et al. (2003) further this interpretation, championing the notion of collective identity, purportedly providing the justification for actions. Post (2005; p. 7) explained that "terrorists have subordinated their individual identity to the collective identity, so that what serves the group, organisation or network is of primary importance." Sageman (2004) proffered supporting empirical evidence. Conducting secondary source psychiatric assessments on 172 Islamic mujahidin biographies. Sageman concluded social bonds to be vital in terrorist behaviour, further expanding "it's a group phenomenon. To search for individual characteristics in order to understand them is totally misleading. It will lead you to a dead end" (Rotella, 2004).

Within the overabundance of group theories of terrorism, there was evidence of more nuanced, less exclusive views of the interaction between sociology and psychology. Friedland (1992) postulated that terrorism was a result of interactions between social processes and individual character. Motivations for becoming a member of an organisation vary across individuals, and personal desires facilitating radicalisation and entry are not necessarily due to social factors. Jackson (2009) used social network analysis to bridge the knowledge of individual and group theories of terrorism. Assessing how interpersonal connections shape individual behaviour, and how relationships between individuals influence organisational function. Taylor and Horgan (2006) support this view, suggesting an alteration in thought. They implored that researchers switch from the assumption that terrorism is a state, and instead viewing it as a highly complex process. Horgan (2008) also expressed the importance of focusing on contexts and relationships, as opposed to psychological or moral qualities. The next section of this chapter focuses on the importance of this interpretation, and how moving from mono-causal explanations, alongside rigorous research has led to advancements in conceptualisations surrounding terrorism and psychopathology.

## 1.6    Period Five- Pathways

Horgan (2008) outlined how psychology can contribute toward an understanding of the terrorist. He advocated viewing terrorism as a pathway process (as opposed to a psychological state) comprising three phases; becoming involved, being involved, and disengaging. Whereas there was already substantial interest and research concerning the first phase, such theorising opened the field of study to largely overlooked areas. While the approaches from periods one and two focus on 'why' individuals become members of terrorist groups, pathway approaches primarily focus on 'how' individuals become members.

Shaw (1986) published the first 'pathway model'.[20] It comprised four constituents; socialisation processes, narcissistic injuries, escalatory events, and personal connections with militant group members. The (time-specific) dominant explanation, narcissism, profoundly influenced the model. Taylor and Horgan (2006) suggested that a pathway involves the interaction between three critical elements: Setting events relating to contextual influence; personal factors relating to psychological and environmental experiences; and social/political/organisational contexts. Taylor and Horgan proposed that during terrorist involvement, the influence of setting events and personal factors diminish, and social/political/organisational factors grow in their influence on an individual, merging with

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[20] That this author is aware of.

personal factors. Mullins (2009) modelled the development of two Islamic terrorist organisations utilising social network analysis. Mullins hypothesised that dynamic variations in group structure correlate with alterations in group and individual psychology, and concluded that individuals strengthen their commitment to the group, through assimilation of the ideas expounded by influential figures. Leistedt (2013) dissected the processes leading to the psychological motivation needed to carry out operations.[21] Social bonds precede ideology; the process of becoming involved in terrorist activities develops through natural group interactions. The group connections individuals acquire through interaction strengthen their identity, facilitate radicalisation, and encourage action.

Whilst pathway models are now fairly commonplace, the prospective role of mental disorder or personality types often goes apparently unmentioned, thus mirroring the dominant sociological explanations of period four. However, as psychopathology affects so many aspects of human behaviour, it can easily be subsumed as a facet of other measured behaviours, like contextual factors such as early experiences, cognitive-social factors like risk taking and reduced social contact (Taylor and Horgan, 2006), radicalising through personal victimization (McCauley and Moskalenko, 2008) or displacement of aggression (Moghaddam, 2005).

The pathway approach broadens the horizons for research regarding mental disorder and terrorist involvement. The influential literature reviews of period three highlight this fact, but subsequent evidence was slow to emerge. For example, Horgan (2003, p. 6) outlined that the regularly stressful experience of 'being' a terrorist may lead to psychological suffering. This echoed Ferracuti's (1982) earlier claims. Weatherston and Moran (2003, p. 702) also argued that symptoms of mental disorder in terrorists may be due to involvement in terror activity and its associated risks:

> "If the presence of mental disorders is detected in a terrorist, it cannot be concluded that the mental disorder was the cause of terrorist activity. In addition, those terrorists who have been subject to detailed psychiatric assessment have been examined under conditions of incarceration, and therefore the circumstances of their arrest and detention in producing mental disorder need to be considered."

So, rather than being a cause of involvement, in certain cases, psychological suffering may be a by-product of involvement. Weatherston and Moran further described how group lifestyle and conflict are fundamental factors that may contribute to mental disorder emergence in

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[21] Leistedt (2013) explains groups demand unanimity, are intolerant of dissent alongside the constant pressure to escalate frequency and intensity of operations with a constant rejection of compromise.

terrorists. Exposure to these conditions is not necessarily conducive to developing mental disorder in every case, but it may contribute to mental disorder onset in particular individuals. This is a potentially ripe avenue for future research in the psychology of terrorism.

The terrorist lifestyle evidently involves exposure to violent and traumatic situations. Studies of analogous behaviours like engaging in war or participating within a gang highlight that the violence inherent in these circumstances may lead to psychological problems. For example, conflict experience may induce post-traumatic stress disorder (PTSD) symptoms (Jordan et al., 1991). This disorder is recognised as manifesting in individuals who are considered to have no history of mental disorder (Weatherston & Moran, 2003). Burton, Foy, Bwanausi, Johnson, and Moore (1994) examined the dynamics of gang violence, and the subsequent impact on psychological functioning. Of the sample of juvenile offenders, 24% met clinical criteria for diagnosis of PTSD due to their exposure to various aspects of gang related lifestyle. Autobiographical evidence from former terrorist actors describe how roles and experiences within an organisation impact upon their psychological health also (Adair, 2009; Collins, 2002; Collins, 1998; Moloney, 2010). The process of continuing violence may lead to changes in the actor's cognitive processes. Individuals will experience psychological responses to their individual actions, as well as group activity (Weatherston & Moran, 2003).

Psychological stress may also play a role in disengagement from a terrorist group. Reinares (2011) interviewed 35 former members of Euskadi Ta Askatasuna (ETA). Some of these members voluntarily left due to 'personal' reasons, the majority of whom had been incarcerated prior to their desistance. Reinares does not elaborate on the meaning of 'personal reasons', other than mentioning a former female member who was motivated to leave the organization due to fatigue and "existential crisis" (p. 799). Despite the worth of this investigation, the author appears hesitant to expand on 'personal'. This might be due to the small sample and the potentially exponential number of personal reasons behind disengagement. Altier et al. (Forthcoming) do expand on 'personal reasons' however. In their empirical analysis of terrorist autobiographies, they include burnout, psychological distress, fear, regret, coping, experience of being a victim, and physiological distress, as various 'push factors' from terrorist groups. Bubolz and Simi (2015) interviewed 34 former white supremacists. 32% of participants self-reported mental health problems either prior to or during their involvement in a hate group. Bubolz and Simi also found that 44% of their sample self-reported suicidal ideation whilst 58% suffered from alcohol and substance abuse.

Although there is currently a lack of specific, concrete evidence regarding mental state affecting an individual's decision to disengage from an organisation. Successful

deradicalisation programs provide psychological aid to those leaving a group. Boucek (2008) describes the Saudi Arabian government program, which includes an expansive counselling course run by approximately 50 mental health professionals and researchers. Mullins (2010) describes Singapore's program[22] (which includes Cognitive Behavioral Therapy; Rabasa, Pettyjohn, Ghez, and Boucek, 2010), and the US program in Iraq, (that addresses psychological issues experienced during conflict). Rabasa et al. (2010) evaluated a number programs across the Middle East, Southeast Asia, and Europe. They conclude the most effective programs offer varying types of counselling (psychological, social, familial). This suggests practitioners should concern themselves with potential psychological issues occurring during participation in violent extremism. This coupled with the lack of research concerning the psychological effects of being involved in an organisation necessitates further investigation. In order to expand on desistance and deradicalisation research, the psychological impact of maintaining a terrorist lifestyle requires attention.

Another crucial by-product of pathway process models is the growth in maturity in terms of explaining behaviour. Rather than seeking mono-causal explanations, process theories acknowledge that radicalisation and engagement in terrorism is likely a culmination of several risk factors crystallising in time and space. Rather than focusing solely upon the 'cause' of terrorist engagement, this shift may lead us to a deeper understanding of the causal chain of terrorist behaviour, and expand current understanding of the role of mental disorder. For example, Gill's (2015) work on lone-actor terrorists highlighted several cases where the individual experience of mental disorders acted as a background risk factor and combined with a number of more proximal stressors, pushed the individual towards radicalisation. This is furthered by Corner and Gill's (2015) inferential analysis which compared samples of mentally disordered and non-mentally disordered lone-actor terrorists. The former group was significantly more likely to experience a recent stressor prior to planning their terrorist attack. For the purpose of threat management and/or risk assessment, solely focusing on a static indicator like presence of a mental disorder is therefore useless in the absence of also looking at how it interplays with dynamic indicators such as recent stressors.

## 1.7   Conclusion

In the months and years that followed 9/11, the terrorism studies literature grew enormously. The clamour for immediate answers often led to simple questions, simple frameworks, and linear thinking. Rather than treating both terrorism and psychopathology for

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[22] Those working within the programme undergo counselling training.

the complex and multifaceted issues that they are, many analyses grasped for the most aggregate and static interpretations. Instead of attempting to understand the complexities behind different diagnoses, the term 'mentally ill' and others like it were often, and sometimes incorrectly, adopted. Instead of understanding that terrorist groups are made up of a wide-range of individuals, functions, experiences, and behaviours, analyses typically sought to understand the 'terrorist' as if they were all similar. It is unsurprising that when such simple thinking dominated, naive answers such as 'there is no relationship at all' became an accepted mantra within the literature. This all occurred despite the presence of several rigorous syntheses of the evidence base, each making very carefully crafted, well-argued, and nuanced conclusions. Instead, these reviews were swept aside or largely misinterpreted. Instead a false dichotomy prevailed that an act of targeted public violence was either carried out by a terrorist or a mentally disordered individual.

There are other major knowledge gaps too. To date, no research has applied concepts around protective factors, mental disorders, and terrorism. Most terrorism research searches for 'risk factors'. This, in turn, may lead to a series of confirmation biases amongst intelligence analysts. Protective factors come in multiple forms and include individual factors (e.g. attitudes, academic achievement, social orientation, self-control, personality factors), peer factors (e.g. close relationships with non-criminal peers, pro-social norms within peer group, number of affective relationships), and family factors (e.g. highly connected to family, involvement in social activities). We also know very little about the temporal ordering of risk factors (of which the experience of a mental disorder may be one of dozens) across terrorists. Radicalisation, and group involvement are processes and may vary from case to case, yet there is a distinct lack of studies aiming to quantify what these progressions look like. There is an extant lack of knowledge, for example, concerning what antecedent behaviours and experiences are immediate risk-factors for lone-actor terrorism, and which ones are earlier in the causal chain (e.g. a factor that might heighten certain vulnerabilities which may in turn push that person further down the extremist path and make them more likely to experience other risk factors). Without sequencing the behaviours, it is impossible to know for sure. The subsequent analytical chapters of this thesis will utilise a variety of both quantitative and qualitative empirical models to investigate these factors, and provide valid empirical evidence for the need to move away from dichotomous reasoning, and instead investigate the multifaceted processes inherent in terrorism.

This review of the evidence base has highlighted, that with consideration of multiple variables at individual, social, and situational levels of analyses, terrorism research may be able to present valid, reliable evidence which aids in prevention and disruption of events

carried out by terrorists with mental health problems, who either felt, due to their disorder, there was no other viable option open to them, or individuals who have been involved in groups, and suffer with disorders due to the atrocities they witnessed. Terrorism is, and will remain, a contentious issue. Tempting as media headlines, citing 'expert opinion' that the cause of terrorism is "mental illness", may be, only with valid empirical data, and (re)interpretation of the value of current and historical evidence will the academic field move forward. Given this, the next chapter discusses and compares the trajectory of empirical advancement and knowledge base of the psychopathology in terrorism literature with the more mature psychopathology in crime field of study, before moving to examine the more recent improvements in terrorism studies, and how these innovative investigations are providing new insights into the role of psychopathology in terrorist behaviour.

# Chapter 2.  Psychopathology, Violence, and Terrorism: Empirical Limitations, Interpretations, and Advancements

## 2.1    Introduction

As highlighted in the previous chapter, the relentless pursuit, across various facets of psychology, for an understanding of terrorist behaviour has suffered from numerous theoretical and empirical errors. It is not surprising that the psychopathology debate stagnated, as there is little scientific agreement as to whether psychopathology plays a role in violence in general. This review provides a brief history of the study of mental disorder and criminal (both violent and non-violent) behaviour. Early work in this expansive research field suffered from much the same methodological and attributional flaws as terrorism studies. Subjective opinions surrounding causal attribution have, through empirical development, significantly reduced. This chapter highlights the parallels between mental disorder and crime and mental disorder and terrorism literature, which may provide direction for future terrorism research. Crucial scientific progression in mental disorder and crime research spanned from disaggregated approaches. Recent work on terrorism research has moved towards more disaggregated approaches, and has uncovered novel knowledge. This chapter argues for expansion of disaggregated approaches within terrorism research, including expansion of common thought and scientific analyses of 'mental disorder'.

## 2.2    Mental Disorder in Crime

### 2.2.1    Early Interest

The study of mental disorder in crime suffered from much the same issues as the study of mental disorder in terrorism, just decades earlier:

> "The terms sociopath, latent homosexual schizophrenic and others have been carelessly used, with a resulting impression that everyone, especially the criminal, is mentally ill.... Is every irresponsible, ill conceived or criminal act evidence of an underlying mental illness?" (Mueller, 1968. p. 189, cited by Melick, Steadman, & Cocozza, 1979).

Early studies comprehensively disproved the common misconception that mental disorder was a cause of criminal behaviour (Guze, Goodwin & Crane, 1969; Lopez-Rey, 1970; Rubin,

1972). However, a major turning point in perception came in the mid-1960s. Rabkin (1979) performed a large scale, comprehensive literature review of the research concerning arrest rates and criminal behaviours of individuals discharged from mental health care. Rabkin noted that prior to 1965, research concluded that when compared with a non-psychiatric population, discharged patients were less likely to be arrested. Post 1965 literature, however, provided polar opposite concluding evidence. Discharged patients were not only more likely to be arrested, but in some cases the arrest ratio was up to 15 discharged patients for every one community member (Sosowsky, 1974). Brugha et al. (2005) highlighted that weighted prevalence of psychosis in prisons was over ten times greater than the general population (52 per thousand compared to 4.5 per thousand). Other investigations evidenced more conservative measurements (Zitrin, Hardesty, Burdock & Drossman, 1976 found a ratio of 1.16 to 1). Rabkin also noted, that, within the mentally ill population, the criminal behaviours were often more severe crimes: "this excess was particularly pronounced in the category of felonies, and specifically, of violent crimes or crimes against people" (Rabkin, 1979. p. 24).[23]

Modestin and Ammann (1996) explained how these vastly disproportionate findings were attributed to deinstitutionalisation hypothesis.[24] This hypothesis was based on the worldwide movement to replace long-stay psychiatric institutions with community based mental health services. The deinstitutionalisation process (reducing institution population size and reforming the institutionalisation process to reduce maladaptive behaviours) (Stroman, 2002) was influenced by three major movements; the advent of modern psychotropic medications (more effective and less damaging than earlier invasive therapies such as electroconvulsive therapy and lobotomies), a socio-political movement calling for open hospitals and community services, and financial imperatives (Eisenberg & Guttmacher, 2010). Although initial outputs from authorities declared positive results, many outpatient facilities lacked the resources to manage to large scale influx of chronically ill patients. This resulted in poor follow-up and many former patients, without the necessary supervision and support, were made homeless (Torrey, 2015).

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[23] As this chapter concerns methodological advancements, a discussion regarding relative and absolute risk is not included. However, it is worth noting that as prison and hospital investigations were limited to highly specific populations these risk estimates are inherently flawed. Mulvey (1994) also explained that although these studies have purported to show elevated relative risk of violence in the mentally disordered, they fail to consider that in any 'general' population prevalence of different mental disorders can range between 1% for severe disorders (which have been continually linked to violence) and 16% for more 'common' disorders. So the absolute risk for an individual with a severe mental disorder sits within an infinitesimally small bracket of individuals within a population.

[24] Also referenced as the criminalisation hypothesis (Modestin & Ammann, 1996)

Along with a major increase in homeless populations, deinstitutionalisation also substantially affected popular views and research surrounding mental disorder and crime. Following deinstitutionalisation, there was a school of research that explained that mental disorder had been criminalised; individuals with mental disorder were more likely to be arrested and imprisoned (Melick, et al, 1979). Teplin (1984) provided evidence for this hypothesis. In an investigation measuring the arrest rates following police-citizen interactions between police and 506 suspects, those with psychopathology were 20% more likely to be arrested following interactions. Further results highlighted that despite the low numbers of individuals with psychopathology (30 of suspects were categorised (by field researchers) as having psychopathology), the probability of arrest for these individuals was substantially higher than non-mentally disordered suspects for most criminal behaviour.

There was also a second stream of literature, which proposed an alternate hypothesis; due to the reduction in availability of long-term hospitals and care programmes, individuals with severe psychopathology were not monitored, their behaviour escalated, and they subsequently entered the criminal justice system (Lamb & Weingberger, 1998). Researchers advocating this belief reasoned that individuals who would previously have been hospitalised were moved into the criminal justice system. Hodgins, Creem Alderton, and Mak (2008) noted that inclinations towards (particularly violent) criminality became evident following deinstitutionalisation. Modestin and Ammann (1996) highlighted that due to the lack of supervision and services for chronically ill individuals, they were more likely to be arrested, and moved into the judicial system. Other investigations made similar conclusions; Gelberg, et al. (1988) concluded that in the homeless population, individuals who had previously been hospitalised were most likely to carry out criminal behaviours. Jemelka, et al. (1989) noted increasing numbers of young adults with mental disorder entering the penal system. Jemelka et al. explained that these figures were because younger psychiatric patients were less receptive to outpatient treatment, and more violent than older chronic patients. Cocozza, Melick, and Steadman (1978) identified an increase in arrest rates of psychiatric patients. They also stressed, however, that although arrest rates were increasing faster than the general population, very few ex-patients were arrested for violent crimes.

The notion that individuals with a mental disorder were more criminally inclined and violent matches the prevailing belief in early periods in terrorism literature. The consistency in results from the numerous studies also led to attribution errors:

"The strength and consistency of this association [between mental patient status and arrest rate] have led some to assert to the conclusion that it is causal" (Link & Stueve, 1994, p. 139).

Selective media reporting (Steadman & Cocozza, 1977) only served to inhibit the opposing rational discourse, and fuel the proliferation of dichotomous reasoning that those with a mental disorder were more dangerous and criminally inclined (Erikson & Erikson, 2008, Hiday & Burns, 2010).

Within this body of research, one particular diagnosis attracted particular interest. The relationship between schizophrenia and violence, was, and continues to be, the most fervently debated subjects in the study of mental disorder and criminal behaviour.

### 2.2.1.1 *Schizophrenia and violence*

Individuals with schizophrenic illness have been of particular attention to research in crime- particularly violent crime, and mental disorder. Schizophrenic disorders, although all characterised by thought and perception distortions, display a range of different symptoms and courses. The preoccupation with schizophrenia and violent criminal behaviour crescendoed in the 1980s (Wallace, Mullen & Burgess, 2004; Walsh, Buchanan & Fahy, 2002), with initial conclusions implying definitive links between the disorder group and violence (Reich & Wells, 1985; Grubin, 1991). Research regularly concluded that schizophrenic illness was overrepresented among mentally disordered; violent offenders (Brennan, Mednick & Hodgins, 2000; Hodgins, 2008) and murderers (Fido, Razik, Mizra, & el-Islam, 1992).

This aggregate view soon faced challenges. Craig (1982) examined agitation, anger, and 'assaultiveness' of patients at admission to inpatient facilities, although individuals with a schizophrenic illness showed high levels of agitation and anger, these behaviours were found at a higher rate in those with symptoms of mania and individuals with organic brain disorder, and the rates of assaultive behaviour for those with schizophrenic illness were lower than that of individuals with organic brain disorders. Walsh et al. (2002) reviewed existing schizophrenia and violence literature, focusing on three study designs; examination of violence in individuals with schizophrenic illness, examination of schizophrenic illness in violent offenders, examination of violence in community based comparison studies. Walsh et al. discovered a range of methodological issues, including definitional problems, selection bias, and confounding variables. The review concurred with Monahan and Steadman (1983) and Monahan (1997), concluding that when appropriate controls for extraneous risk factors such as age, gender, and socio-economic factors were implemented, the risk of violence in

schizophrenic illness or any other disorder group is modest. Walsh et al. did highlight two factors which have a positive effect on violence in those with a schizophrenic illness; co-morbid substance abuse (Cuffel, Shumway, Chouljian & Macdonald, 1994; Fazel, Gulati, Linsell, Geddes & Grann, 2009; Swanson, Holzer, Ganju & Jono, 1990; Tiihonen, Isohanni, Räsänen, Koiranen & Moring, 1997; Wallace et al., 1998) and acute psychosis (Häfner & Boker, 1982; Link, et al., 1992; Taylor, 1985; Taylor & Gunn, 1984). Wallace et al. (2004) also noted that an individual's pre-morbid personality may affect the risk of violence.

Another important methodological factor, not taken into consideration in the early concluding remarks, is the heterogeneity across schizophrenic illnesses. Modestin and Ammann (1996) demonstrated the importance in disaggregation across disorder types. When schizophrenic illnesses were aggregated as 'schizophrenia' there were no significant differences in rates of overall criminal behaviour between patients and controls. However, Modestin and Ammann did find differences in behaviours when 'schizophrenia' was split across subgroups; schizophreniform, acute, and chronic. Compared to controls, patients in the schizophreniform subgroup were more likely to have been convicted of property crimes, patients in the acute subgroup had a higher rate of convictions for violent crimes, and patients in the chronic subgroup were no more likely to have been convicted of any crime. Modestin and Ammann also compared conviction rate across subgroups; patients in the chronic subgroup had the least amount of convictions, and there were no significant differences between patients in the schizophreniform and acute subgroups.

The methodological and attribution problems within schizophrenia and violence literature were also present within the wider 'mental disorder' and violent and criminal behaviour literature. There were two distinct study designs employed to examine mental disorder and criminal behaviour; arrest rate and prison investigations- investigating prevalence of mental disorder in incarcerated individuals, and hospital investigations- investigating criminal histories in psychiatric patients. These two designs, whilst allowing access to rich samples of individuals, attracted wide critique from more recent investigations. Alongside overarching attribution errors, critical examination of the studies also reveal sampling, methodological, and aggregation problems. (Monahan and Steadman, 1983; Monahan et al., 2001). These two designs and associated evidence are now critically examined.

### 2.2.2 Arrest Rate and Prison Investigations

One stream of studies that examined psychopathology in the criminal justice system were arrest rate investigations. Arrest rate studies, first employed in the early 20th century

(Ashley, 1922, as cited by Rappeport & Lassen, 1965), were initially utilised to measure the 'dangerousness' of individuals with a mental disorder. Early arrest rate investigations found little evidence for increased risk of violence in discharged psychiatric patients, with discharged psychiatric patients presenting with lower rates of criminal behaviour (Brill & Malzberg 1962; Cohen & Freeman, 1945; Pollock, 1938). However, Rappeport and Lansen (1965) highlighted that these investigations had underlying flaws in experimental procedures and statistical measures. Rappeport and Lansen replicated the experimental design of Brill and Malzberg (1962), strengthening experimental and statistical procedures, and examined five serious violent offences (murder, manslaughter, rape, robbery, and aggravated assault). Rappeport and Lansen reported contrary findings to the earlier studies. They concluded that for all crime types, discharged psychiatric patients had at least equivalent rates of offending, and were significantly more likely to commit robbery.

Rappeport and Lansen's (1965) investigation highlights the sharp change in opinion of the link between mental disorder and criminal behaviour. The investigation was also one of the first following deinstitutionalisation. Multiple arrest and prison studies followed, seemingly validating the hypothesis that individuals with psychopathology are at risk of violent, criminal behaviour. Teplin (1990) measured prevalence rates of three disorder groups (major depression, mania, and schizophrenia) in jail detainees in Illinois, comparing rates with that of a general population. Teplin concluded that lifetime prevalence rates were between two and three times higher across disorders compared to the general population. Teplin's investigation was innovative as it also considered the relation between disorder episode onset and criminal behaviour, highlighting that over six percent of incoming detainees suffered from a current episode when they were arrested. However, this study also aggregated criminal behaviour and disorder groups, and though mentioning the importance of consideration of co-morbid substance abuse and personality disorders, the author did not test for prevalence of these disorders.

In a more recent investigation, Teplin et al. (2002) afforded more consideration toward the importance of disaggregation. Teplin et al. examined prevalence of mental disorder (affective disorders, psychotic disorders, anxiety disorders, ADHD, conduct disorder, substance use disorders) in a sample of arrested and detained juveniles within Illinois. Concluding that, after excluding conduct disorder, 59.7% of males, and 68.2% of females met criteria for at least one diagnosis of mental disorder with impairment to functioning. Within the cohorts, substance misuse had the highest prevalence (50.7% male, 46.8% female), followed by conduct disorder (37.8%, 40.6%), anxiety disorders (21.3%, 30.8%), affective disorders (18.7%, 27.6%), and psychotic disorders (1%, 1%). The prevalence for psychotic

disorders runs contrary to earlier investigations, and those advocating a link between schizophrenia and violent behaviour. Teplin et al. did not, however, investigate crime type, or a general population cohort, matched for age, gender, and ethnicity.

A second branch of research in this area examined prevalence of mental disorder within convicted prisoner populations. Taylor and Gunn (1984) conducted a prison survey, examining records of 1241 inmates. Within this cohort, 8.7% showed symptoms of psychosis (70% of which showed symptoms of a schizophrenic illness), 9.4% substance dependency, 3.3% 'neurosis', and 3.3% organic brain injuries. Within this cohort, levels of violent criminal behaviour differed both across disorders and between offenders (mentally disordered and non-mentally disordered). Taylor and Gunn concluded that "the high prevalence of psychiatric disorder among some violent offenders was not entirely surprising" (p. 1948). However, the results indicated that rates of homicide for individuals with schizophrenia and 'mixed psychiatric disturbance, not including schizophrenia, psychosis, or pure personality disorder' were 10.9% and 28.3% respectively. This figure appears high, but the impact is reduced when examining the individuals with no recorded disorder (58.7%). Other violent crimes follow the same pattern (schizophrenia, 8.9%, other mental disorder, 23%, and no disorder, 67%). Crimes where violence was directed at property (arson, criminal damage) highlighted that offending rates were almost equal across groups.

Côté and Hodgins (1990) examined incarcerated offenders, and measured co-morbidity of severe mental disorders. They identified higher lifetime prevalence (as compared to a non-criminal population)[25] in all disorders measured, with "almost all" the disorders being co-morbid. Antisocial personality disorder, alcohol abuse/dependence, and drug abuse/dependence were most frequently identified as co-occurring with the disorders measured. Despite the assertions made by this study, it suffers from aggregation and attribution errors. With regards to aggregation errors, there was no information disclosed concerning what constituted a criminal act, or whether the act was violent. Schizophrenia and schizophreniform disorder were also merged into one category, increasing the prevalence rate.[26] This merging also occurred for alcohol and drug abuse and dependence. Attribution errors spanned from the sample utilised; all individuals approached were currently incarcerated offenders. Alongside this, although the investigation measured onset differences between co-occurrence of

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[25] Prevalence figures drawn from Bland, Orn & Newman (1988), Collins & Schlenger (1983), and Robins et al. (1984).
[26] With no explanation as to whether 'schizophrenia' also included other diagnoses under this bracket.

disorders, there was also no explanation as to the relationship between disorder onset and criminal behaviour.

Fazel, Doll, and Langström (2008) performed a systematic meta-analysis of 25 surveys concerning mental disorder prevalence in juvenile detention settings, observing gender differences in prevalence of four disorder groups. Psychotic illness and conduct disorder held equal prevalence across genders, however, major depression (29.2% compared to 10.6%) and attention deficit hyperactivity disorder (ADHD) (18.5% compared to 11.7%) were more frequently identified in females.

These investigations were subject to criticism on five levels. First, given the mass influx of severely mentally disordered into populations, higher arrest rates may be reflective of differential police treatment, not underlying criminal behaviour (Link et al., 1992; Teplin, 1984). Second, arrest rate and prison studies which did employ comparison methodologies failed to consider the demographic and socioeconomic factors (Modestin and Ammann, 1996) which would drastically differ between discharged-patients (samples obtained from state funded treatment settings, attended by individuals from poorer socioeconomic backgrounds who could not afford private healthcare, and would come from more disadvantaged areas where rates of crime and violence are even higher for individuals without mental disorder), prison samples (also a higher preponderance of poorer socioeconomic and disadvantaged backgrounds), and the 'general' populations (rates are based on cross sections of multiple societies, and have been criticised for not picking up prevalence rates for more at-risk populations, such as the homeless and severely mentally ill (Kessler & Üstün, 2008)) (Link et al., 1992). Third, despite the assertions of authors, none of the studies were able to ascertain underlying motivations for criminal behaviour, therefore causality cannot be attributed. Fourth, the investigations failed to consider that following advancements in medical intervention, and inclusion of more deviant behaviours as symptoms of mental disorder, individuals who would have previously been moved through the criminal justice system are now moved through the mental health system (Monahan 1973; Steadman, Cocozza, and Melick, 1978). Fifth, a failure in sampling consistency, related to aggregation errors, also reduces the validity of the findings. Some investigations found higher arrest rates in overall populations (Cocozza et al., 1978; Steadman et al., 1978), whilst others found higher arrest rates for specific offence types (Rappeport & Lassen, 1965). Fazel and Danesh (2002) performed a systematic review of psychiatric surveys within prison systems. The results highlighted that although the papers considered for review consistently demonstrated that individuals within prison systems are at a higher risk of psychopathology, there was substantial heterogeneity in identified prevalence across disorders.

There was also a strand of research which stressed the importance of prior criminal records in determining arrest rate (Melick et al., 1979; Shore et al., 1989). A number of investigations have argued that rates of violent criminal behaviour by previous psychiatric patients may be explained by examining individuals who have arrest histories prior to hospitalisation (Brill & Malzberg, 1962; Monhahan & Steadman, 1983; Rabkin, 1979; Shore, Filson & Rae, 1990; Steadman et al., 1978). Melick et al. (1979) examined the arrest rates of two groups of ex-psychiatric patients, the first group released in 1968, the second in 1975. In both cohorts, arrest rates for both groups were higher than rates in a general population. However, these figures were skewed by previous arrest rates, particularly patients with two or more prior arrests. When Melick et al. controlled for previous arrests, ex-patients had lower arrest rates than the general population (for all crime types barring property crime). Shore et al. (1990) examined the pre- and post-hospitalisation criminal behaviours of cohort of 300 former inpatients who attempted to approach the president of the United States or other prominent political figures. Shore et al. concluded that individuals with a history of arrests (matched to a general population control sample) were three times more likely to be arrested for violent crimes following hospital discharge.

These investigations highlight that given the influx of individuals with criminal histories into the psychiatric system, increases of arrest and incarceration within former psychiatric patients may not wholly be due to mental disorder. These results, and the above criticisms of arrest rate and prison investigations, emphasise the importance of patient investigations.

### 2.2.3 Patient Investigations

Given the methodological concerns rising from the arrest rate and prison investigations, a second stream of research moved to investigate whether psychiatric patients are more likely to engage in criminal behaviour and violence than individuals who have never been psychiatric patients. This alternate hypothesis uses a different cohort of individuals for examination, and was seen as having a more stringent methodology (Link et al., 1992).

Multiple investigations focused on violence just prior to admission to an inpatient environment, with consistent results. Sosowosky (1978) investigated previous arrests (both violent and non-violent) within a cohort of inpatients within Napa State. Sowosky concluded that within the sample, 47.2% had been arrested at least once prior to admission, with just under half (23.6%) arrested for violence. Petrie, Lawson, and Hollander (1982) examined a cohort of patients within a geriatric psychiatric unit. Petrie et al. concluded that on admission

over 62% of patients presented with violent and aggressive behaviour. Swartz et al. (1998) examined risk factors for violence in the four months preceding involuntary admission to an inpatient unit. Swartz et al. concluded that 17.8% of the cohort had engaged in violence four months prior to admission, with the combination of non-compliance with medication and substance abuse problems the overall significant predictor for violence. Link et al. (1992) investigated violent and criminal behaviour across samples of inpatient and community residents (first contact patients, repeat-treatment patients, former patients, and never treated) within New York City. Link et al. controlled for sociodemographics, community context (Sampson & Groves, 1989), homicide rates, psychotic symptoms, and social desirability of response.[27] Link et al.'s results highlighted that all patient groups (first contact, repeat-treatment, and former) demonstrated higher levels of violent and criminal behaviour than the never treated cohort. Further examination revealed that current psychotic symptoms were the fundamental contributor to differences in recent violent and criminal behaviours between patients and community residents.

This high prevalence of violence and aggression within psychiatric hospitals should not be unexpected; Swanson, Holzer, Gangu, and Jono (1990) highlight that a primary criterion for admission, and commitment to psychiatric units is "danger to others or self" (p. 762). Tardiff and Sweillam (1982) found supporting evidence for this. Of their cohort of 5,164 psychiatric inpatients, 8% had been violent on at least one occasion in the preceding three months, with rates of violence dropping following admission (10% violent on admission). Krakowski, Jaeger, and Volavka (1988) examined patients within a facility designed for violent individuals, measuring levels of violent behaviours over three weeks. Krakowski et al. concluded that social dysfunction, not symptomology, was more strongly associated with violent behaviour. This was supported by gradual reductions in violence during patient stay at the unit, which were only partially explained by a reduction in acute symptoms (only reduced violence within the first half of the patient stay).

These investigations highlight the necessity to investigate violence and criminal behaviour as an individual's psychopathology improves. This involved a movement towards examining individuals after inpatient treatment. Early investigations continued to provide a static view of criminal and violent behaviour. Herman (1986) investigated instances of violence in an outpatient sample. 16% of patients had a history of perpetrating violence.

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[27] Link et al. (1992) controlled for self-reported measures of violence, reasoning that when undergoing treatment, patients are encouraged to report violent/socially undesirable behaviours, which may affect report levels within the investigation- patients may self-report higher levels of violence than non-patients, which may not be indicative of 'true' violence levels.

However, this investigation failed to explore the timeframe between violent event and psychiatric treatment. Holcomb and Ahr (1988) investigated criminal behaviour within individuals in inpatient, outpatient, and community treatment programmes. 38% of the sample had a history of at least one arrest. Holcomb and Ahr concluded that, compared to individuals with no history of arrest, those who experienced a later onset of mental disorder, a history of substance abuse, involuntary commitment, and who were from an urban community, were more likely to have a history of arrests. This study, though it engaged in inferential analyses, did not differentiate between the three treatment groups. Swanson et al. (2002) statistically demonstrated that (when co-occurring with substance abuse, self-rating of poor mental health, and early age of onset) individuals who had experienced psychiatric admission in the previous twelve months were at risk of increased violence. Swanson et al. warned that, without longitudinal data, it cannot be concluded that a history of hospitalisation may be an indicator of a relapse of an acute psychiatric episode.

More recently, investigations have attempted to reduce these errors, and have moved towards examining criminal and violent behaviour over time, including both during and after inpatient treatment. Lindqvist and Allebeck (1990) performed a longitudinal (14 year) follow-up of schizophrenic patients, discharged from hospitals in Stockholm. Lindqvist and Allebeck cross referenced the data on the patients with information regarding convictions and non-prosecutions in the general population from the Swedish Central Police Register. The results highlighted that male schizophrenics did not commit more criminal offences than expected in the general male population, whereas criminal behaviour in female schizophrenics was twice that of the general population. However, the results did highlight that violent crimes were four times more frequent in schizophrenics than the general populous. The authors conceded that the arrest rate for violent offences was 1.9 times higher in Stockholm, so there may have been overestimation of violence among the schizophrenic sample. The authors also noted that due to the design and timeframe of retention in the police register, it was not possible to discern the true incidence of crimes, which may have skewed the data.

Monahan et al. (2001) conducted the highly comprehensive Macarthur Study of Mental Disorder and Violence. Interviews were conducted during hospitalization and post-discharge (up to one year)[28]. Patients were selected if they had a chart diagnosis of schizophrenia, schizophreniform disorder, schizoaffective disorder, depression, dysthymia, mania, brief reactive psychosis, delusional disorder, alcohol or drug abuse or dependence, or

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[28] Running alongside this, each patient nominated a "collateral" (Monahan et al., p. 152) to be interviewed, who was most familiar with their behaviour in the community (family, friends, significant others, co-workers).

a personality disorder. Six categories of violent and aggressive behaviour were measured (battery resulting in injury, battery not resulting in injury, sexual assaults, assaultive acts involving a weapon, and threats made with a weapon) were measured both prior to initial hospitalization, and during the one-year follow-up period. Results highlighted that 27.5% of patients carried out at least one violent incident, with 44.7% of those involved in more than one incident. Violence was aimed predominately at family and friends, in the individual's home, with alcohol and drug use most frequently occurring at the time of the violence.[29] This study also demonstrated a drop in prevalence of violence over the one-year follow-up, with patients at the most risk of violence within the first 150 days after discharge.

Soyka, Grax, Bottlender, Dirschedl, and Schoech (2007) investigated criminal and violent behaviours in patients with schizophrenic illness for 7-12 years post discharge. Within the cohort, 10.2% were convicted for a criminal offence within the timeframe, 3.7% for a violent offence. Soyka et al. purported their results to highlight an association between schizophrenia and violence, however, the investigation failed to determine whether criminal and violent behaviours were due to psychiatric relapse, or for other confounding factors which impact on violent behaviour. Yates, Kunz, Khan, Volavka, and Rabinowitz (2010) completed a five-year follow-up examination of patients after discharge following a therapeutic programme. Yates et al.'s results lend support for criminal and violent behaviour following relapse. Individuals who participated within the therapeutic programme were significantly less likely to engage in criminal and violent behaviour, or be re-hospitalised in the follow-up period.

Despite the consistent results, and the advancements in thought regarding the relationship between mental disorder and violent and criminal behaviour, this stream of literature still suffered from fundamental errors. Many studies made attribution errors, with little consideration to medical procedures surrounding involuntary commitment to inpatient facilities (Petrie et al., 1982). There was no attention towards the importance of timeframes of violence and criminal behaviours in relation to psychiatric admission. Instead many researchers used arrest or recommitment to an inpatient facility as a proxy for violence When community samples were employed, measures of violence were afforded little attention. Multiple studies were based on self reports of violence and criminal behaviour, which as Link et al. (1992) highlighted, may produce a higher baseline for violence in a patient setting. Such self report measures were also often based on broad questions, with little opportunity for in-depth descriptions of incidents, and only a handful of investigations sought reports from others

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[29] The authors noted that although 49.4% of patients were prescribed a psychotropic medication at the time of the violence, 54% of these individuals were not complying with their medication regime.

familiar with the patients (Link et al., 1992; Monahan et al., 2001). Investigators also failed to disaggregate between samples of patients (inpatient, outpatient, community), and many studies were small scale, with samples taken from individual hospitals.

A fundamental methodological flaw, present in both prison and hospital studies, has severely reduced the generalisability of conclusions which suggest a causal link between mental disorder and violence: The individuals within these studies are not reflective of the entire population of those with a mental disorder, nor are they a true reflection of the behaviours within individual disorders. The individuals evaluated within the studies are a small, highly unwell cohort, of a much larger population of individuals who have mental disorders but do not engage in violent or criminal behaviour. More comprehensive conclusions can only be arrived at following investigations which examine entire populations.

### 2.2.4   Cohort Investigations

Cohort investigations remove the sampling bias inherent in both prison and patient investigations. Prison and patient investigations are not able to fully explain the relationship between mental disorder and violent and criminal behaviour, because they do not examine the relationship in individuals who have not been captured by the mental health or prison systems. Cohort investigations draw on 'general' population samples, extracting information on diverse ranges of individuals. These investigations consider that different disorders may contribute to violent and criminal behaviour through individual pathways. Individuals within the same diagnostic group behave differently under different circumstances, depending on their gender, age, cultural association, prior experiences, and social environment (Swanson et al., 1990).

Swanson et al. (1990) evaluated three epidemiological catchment area surveys. The surveys drew on representative samples of adult household resident populations (10,059 respondents). 368 respondents reported at least one incidence of violent behaviour in the year preceding the surveys. Violent behaviour was associated with being young, male, and of low socioeconomic status. Within the violent cohort, 55.5% met criteria for some form of psychopathology (compared to 19.6% in the non-violent respondents). Substance abuse was the most prevalent diagnosis in the violent group (41.64%), and was also substantially higher than the non-violent cohort (4.93% prevalence). However, prevalence of affective disorders (9.37% violent to 2.95% non-violent), schizophrenic disorders (3.93% violent to 1.03% non-violent) were also noted by the authors. Swanson et al. further emphasised the importance of co-morbidity. Noting that specific combinations of disorders were more likely to be associated with violent behaviour (for example schizophrenia only yielded low levels of violence, but

individuals with schizophrenia and substance abuse or an affective disorder showed a much higher propensity towards violence), and an increasing number of diagnoses was positively associated with violent behaviour. These findings highlight the new directions that cohort studies allowed, finer grained analysis of non-biased samples. Despite the utility of this study, concerns still remained; the survey relied on self-report data, the survey questions were limited, with little chance for expansion on the frequency or severity of violent behaviour, and the survey questions were limited to gathering information regarding the last twelve months, which may have skewed both psychiatric and violence conclusions.

Hodgins (1992) examined a 15117 individuals in a Swedish birth cohort, performing a longitudinal follow up over 30 years. Hodgins measured associations between disorder groups (major mental disorder, substance abuse and/or dependence, all other mental disorders, and intellectual disorder) and criminal behaviour (violent crimes, theft, fraud, traffic crimes, other). Hodgins identified differences in criminality across all disorder groups; those with a major mental disorder (schizophrenia, major affective disorders, paranoia, psychosis) were significantly more likely (than individuals with no confirmed diagnosis) to have committed at least one crime by the age of 30 (men 2.56, and women 5.02 were times more likely), those with substance abuse and/or dependence were also significantly more likely to have a criminal history (men 20.37, and women 32.34 times more likely), intellectually handicapped individuals were 3.12 and 3.73 (men and women respectively) times more likely to have a criminal background, and those classified under 'all other mental disorders' were found to be 1.15 and 1.67 (men and women respectively) times more likely to have committed at least one crime. Age of criminal onset differed across disorder groups in both male and female cohorts, with male offenders starting criminal activity in adolescence, prior to any formal diagnosis. Hodgins also compared disorder groups and crime type, identifying significant differences: Those with substance abuse were significantly more likely to commit all crime types (across gender) compared to those with no disorder. Females with major mental disorder or intellectual handicap were significantly more likely to commit a violent offence, whereas women with any other disorder were significantly more likely to commit fraud. In the male cohort, those with a major mental disorder were significantly more likely to commit all crimes excluded traffic crimes, those with an intellectual handicap were significantly more likely to commit violent crimes, theft, traffic crimes, and other crimes, and those with any other disorder were significantly more likely to commit fraud or vandalism. This investigation moves away from earlier aggregation errors, but the grouping of disorders, specifically 'major mental disorders' and crime type, and a lack of consideration towards the importance of confounding demographics and comorbidity, may still weaken the concluding remarks.

Tiihonen, Isohanni, Räsänen, Koiranen, and Moring (1997) studied a birth cohort of 12,058 individuals in Finland. Longitudinal follow up showed that 503 males went on to commit criminal offences. Within this groups, 23% of males had a psychiatric diagnosis, with 62% of these individuals committing their first offence before formal diagnosis. Within the non-criminal cohort, 6% of males had a psychiatric diagnosis. The authors interpret differences between odds ratios for specific disorders and any criminal offences (3.1 for schizophrenic illness, 6.3 for mood disorders with psychotic features) and violent offences (7.0 for schizophrenic illness, 8.8 for mood disorders with psychotic features) to mean that these disorder groups are associated with a "moderately elevated risk" (p.843) for violent behaviours. This effect may have been mediated by the identified high levels of co-occurring substance abuse, but was not confirmed by the authors. The length of follow-up also restricts the validity of the results. Individuals were only examined for 26 years, whereas onset of mental disorders span over much longer periods (Kessler, Chiu, Demler, and Walters, 2005).

Arseneault et al. (2000) reported on a New Zealand birth cohort of 1037 individuals. Individuals were assessed on a biannual basis until the age of 21. Arseneault et al. found that individuals who met diagnostic criteria for any disorder were at risk of violent behaviour. However, individuals with alcohol or marijuana dependence, and schizophrenic illness held the strongest associations with violence (11.3%, 28.2%, and 9.6% respectively). Individuals with comorbid substance dependence and schizophrenic illness (18.3% of total cohort) were responsible for 57.9% of the cohort's violent convictions, and 54.4% of the cohort's self-reported violence. 6.8% of such individuals were convicted recidivists, with 44.3% self-reporting recidivism. Arseneault et al. also investigated causal factors. They highlighted that when controlling for comorbidity and substance use just prior to violence, baseline risks for violence dropped across disorders (49% decrease in those with alcohol dependence, 32% decrease in those with marijuana dependence, and 19% decrease in those with schizophrenic illness). Controlling for excessive threat perception yielded similar trends (19% in alcohol dependence, 19% in marijuana dependence, and 32% in schizophrenic illness). Controlling for adolescent conduct disorder also reduced violence risk (29% in alcohol dependence, 42% in marijuana dependence, and 44% in schizophrenic illness). When controlling for all three variables, the risk of violence in those with alcohol and marijuana dependence reduced to below baseline for controls, no longer posing a significant risk for violence, however, in individuals with schizophrenic illness, presence of all three variables failed to explain violence risk than could be explained by conduct disorder alone.

Cohort studies marked an important turning point in crime and mental disorder literature. Methodological errors in attribution and aggregation were reduced. The cohort

studies have also shifted the debate within the schizophrenia and violence literature. They have advanced an evidence base for the assertions of the importance of substance abuse, highlighting it to be an important mediating factor. Following advancements in scientific reasoning and methodologies, aggregate opinions have matured into a disaggregate, objective evidence base. The following section charts the evolution of disaggregation in literature concerning mental disorders and criminal behaviour.

### 2.2.5   Disaggregation

The above investigations are a small subset of the exhaustive amount of research surrounding mental disorder and criminal behaviour. They highlight the improvements in scientific reliability and validity over time. Deinstitutionalisation had a major effect on both common thought and research, with an initial burst in aggregate, dichotomous thought. Unlike terrorism studies, scholars in the field of mental disorder and criminal behaviour have consistently identified the importance of what constitutes 'mental disorder', with Modestin and Ammann (1996, p. 70) noting; "Particular subgroups of mental patients should be studied… since criminality rates among them differ". However, sample sizes within investigations often hampered disaggregation. Some severe mental disorders have very low prevalence, and reliable estimation requires large sample sizes. In order to draw statistical conclusions from samples, researchers would often merge categories of disorders (Côté & Hodgins, 1990 merged schizophrenia and schizophreniform disorders and alcohol and drug abuse and dependence; Teplin, 1990 tested three disorder groups, major depression, mania, and schizophrenia), sometimes in an arbitrary manner (Taylor & Gunn, 1984 delineated only between neurosis, mixed psychiatric disturbance, and other mental disorder; Hodgins et al., 1992 although identifying multiple disorders, then grouped schizophrenia, major affective, paranoia, and psychosis, and 'all other disorders', Krakowski et al., 1988, initially used DSM-III categorisation groups including schizophrenia, major affective disorder, personality disorder, and mental retardation. However, for analysis they grouped disorders into 'psychotic functional disorder'[30] and non-psychotic (personality disorder and mental retardation)). Whereas later, larger studies were able to employ DSM coding (Tiihonen et al., 1997; Fazel, et al., 2008; Teplin et al., 2002).

Moving further toward a disaggregated approach, Joyal, Côté, Meloche, and Hodgins (2011) utilised multivariate analyses to identify subgroups across disorders and behaviours.

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[30] Many major affective disorders do not have psychotic features (DSM, APA, 2013; ICD-10, WHO, 2010).

They identified individuals who had been released from prisons and psychiatric hospitals with a history of violence, and diagnosis of severe mental illness (schizophrenia, schizoaffective disorder, schizophreniform disorder, delusional disorder, psychotic disorder not otherwise specified (NOS), major depressive disorder, and bipolar disorder). These individuals were screened for comorbid personality disorders (including conduct disorder), substance abuse disorders, psychopathy, risk of violence, and violent behaviours. The individuals were clustered into four distinct subgroups; psychotic, repetitive, institutional, and stabilised, each with a distinct pattern of violence. Individuals in the repetitive cluster had significantly more instances of self-reported violence over a lifespan, and were significantly more likely to use substances before violence. However, they also had significantly more non-convictions due to judgement of non-responsible for violent actions due to mental disorder. These individuals also yielded the highest risk scores in the PCL-R assessment. Individuals within the stabilised cluster had the lowest self-reported violence. Individuals in the psychotic cluster were significantly more likely to have delusions and use a weapon in the violent events, and attack family members in their place of residence. This investigation highlighted that individuals who display specific symptoms and behaviours will initiate, maintain, and desist from violence under specific situations.

Disaggregation of crime type and mental disorder is also an important advancement. Crime type received less attention in literature which disaggregated disorders, with most investigations discerning between violent and non-violent criminal activities only (Swanson et al., 1990). However, more recent investigations have highlighted why such methodologies are not sufficient, as Raine (1993, p. 3) explained:

> "There is considerable heterogeneity within the population of repeatedly criminal individuals, just as there is considerable heterogeneity within many established disorders."

More recent studies have successfully aggregated across both disorder and crime type. Monahan et al. (2001) differentiated between battery resulting in injury, battery not resulting in injury, sexual assaults, assault with a weapon, and threats with a weapon; Link et al. (1992) examined violent behaviours (hitting and hurting others), fighting, and weapon use.

Other investigations have examined different offence types; Alden, Brennan, Hodgins, and Mednick (2007) investigated sex offences in males with psychosis (schizophrenia, organic brain disorder, affective psychosis, other psychotic disorder (reactive, paranoid, and unspecified)), whilst taking the moderating effects of comorbid personality and substance use

disorders into account. The results demonstrated that males who had been hospitalised with any form of psychosis tested were four times more likely to be arrested for a sexual offence than those who had never been hospitalised. A breakdown of diagnoses highlighted specific types of psychosis were associated with males who had been hospitalised (those with affective psychosis were less likely to have been arrested for a sexual offence, whilst all other psychoses measured were more likely). The results also demonstrated that the moderating effects of personality disorder or substance abuse were identified across diagnoses. In a cross sectional survey of disorder prevalence across nonviolent men, violent men, and gang members, Coid et al. (2013) noted prevalence differences across 6 disorder groups (psychosis, anxiety, depression, alcohol dependence, drug dependence, anti-social personality disorder). Gang members bore the highest prevalence across all disorder groups. Prevalence differences between violent men and gang members ranged between 11.2% for depression, and 56.6% for anti-social personality disorder. Wallace et al. (1998) examined prevalence rates of mental disorder within a cohort of individuals convicted for violent crimes (interpersonal violence, homicide, sexual offenses), drug related crimes, arson, property crimes, and traffic crimes. The initial results implied that across both disorders and crime type, individuals with psychopathology were more likely to have had prior psychiatric treatment. However, Wallace et al., also concluded that comorbid substance misuse was found to have a mediating effect on criminal behaviour.

Advancements in disaggregation have also led to changes in thought regarding attribution. Following early definitive conclusions within prison and hospital investigations, causal attributions, particularly regarding schizophrenia, proliferated common thought. Later, more disaggregate studies highlighted flaws in the reasoning that individuals with a mental disorder are more violent and criminally inclined. One important early advancement was the consistent evidence regarding the importance of substance abuse. One of the earliest studies to consider substance abuse as a mediating factor was carried out by Lindqvist and Allebeck in 1989. Linqvist and Allebeck (1989) assessed the role of alcohol and drug abuse in schizophrenic patients with a history of violence. The investigation first identified that 5.9% of the cohort had a history of violence, of these individuals, 37% had a history of alcohol/drug abuse, and a further 18% were "probable abusers" (p. 193). However, the small sample size (38 patients), and inconsistent conclusions regarding 'probable abusers' limits the reliability of this study. Subsequent studies have highlighted the role that substance abuse may play, both as a mediating factor with other illnesses, and as a primary diagnosis (Arseneault et al., 2000;

[31] Cuffel et al., 1994; Fazel et al., 2009; Hodgins et al., 2008; Holcomb & Ahr, 1988; Monahan et al., 2001; Swanson et al., 1990; Tiihonen et al., 1997; Wallace et al., 1998). For example, Elbogen and Johnson (2009) statistically demonstrated that schizophrenia, bipolar disorder and major depressive disorder were only reliable predictors of violence when there was substance abuse/dependence co-morbidity.

Alongside substance abuse, further, disaggregated research demonstrated the importance of the combination of multiple factors, and how these interact in space and time. Examination of different disorders, situations, demographics, along with unique experiences that may provide more rounded answers regarding attribution of mental disorder to criminal and violent behaviour. There is evidence that acutely unwell individuals may be at higher risk of criminal and violent behaviour (Hafner & Boker, 1982; Link et al., 1992; Mulvey, 1994). Which may exacerbate, and by exacerbated by non-compliance with medication (McFarland, Faulkner, Bloom, Hallaux & Bray, 1989; Swartz et al., 1998), homelessness (Martell, 1991), and prior arrests (Melick et al., 1979; Shore et al., 1989) Monahan et al.'s (2001) subsequent analyses disaggregated the initial findings of the MacArthur Study of Mental Disorder and Violence. Monahan et al., investigated the impact of multiple confounding factors on behaviour, including; prior violence and criminality (prior violence and criminality were strongly associated with violence post-discharge), childhood experiences (physical abuse (but not sexual), and parental deviant behaviour was found to be associated with violence post-discharge), neighbourhood context (overall significantly associated with violence post-discharge), and diagnosis.

These investigations chart the scientific advancements in the field of mental disorder and criminal and violent behaviour. The pathway has been marred with subjective opinions and poor empirical evidence. However, the literature has shown disaggregation to be an important factor in reducing errors and advancing scientific validity and reliability. This academic field has much to offer for psychopathology and terrorism research. Disaggregation has the potential to expand the knowledge base beyond the current widespread dichotomous reasoning.

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[31] Although Arseneault et al. (2000) included marijuana dependence, it is not known whether individuals who were dependent on other substances were not included in the analysis, or simply not present in the cohort.

## 2.3    Mental Disorder in Terrorism

Despite the evolution of research in the psychopathology and crime literature, up until very recently, mental disorder as a variable for explaining terrorist behaviour remained dichotomous. This is due to pervasive issues with empiricism. Problems with valid empirical research have been the unifying feature across the periods of study concerning psychopathology and personality and terrorism noted in the previous chapter. However, these issues are not exclusive to psychopathology approaches within terrorism studies. In 1988, Schmid and Jongman extensively reviewed terrorism research, describing the academic field to be 'less than impressive':

> "Much of the writing in the crucial areas of terrorism research… is impressionistic, superficial, pretentious, venturing far-reaching generalizations on the basis of episodal evidence" (p. 177).

They consistently cited inadequate use of data, alongside a failure in conceptualisation of the phenomenon as the primary errors. Over a decade later, Silke (2001) performed a comprehensive review of academic articles. He unearthed concerns in methodologies of interviewing practices, an over-reliance on media sources, and a lack of statistical analyses. During the 1990s, 68% of literature was narrative literature reviews, with only 19% providing quantitative statistical analysis. There were slight improvements in practices and data validity following September 11th, 2001. Research utilising statistics increased,[32] and reliance on secondary sources decreased (Silke, 2007). However, these improvements were minor, and did not lead to an escalation in novel knowledge. Correspondingly low levels of rigorous research were identified by Lum, Kennedy, and Sherley (2006), who systematically reviewed thousands of peer-reviewed articles, noting that between 3-4% of those sampled employed empirical analysis on terrorism data or information. Describing the remaining 96-97% of sources as "thought pieces, theoretical discussions, or opinions" (Lum, et al, 2006. p. 491-492). Gunning (2007) explained that the adoption of problem-solving and dichotomous thought in terrorism studies has fuelled the empirical shortcomings. The enduring overreliance, acceptance, and reproduction of literature review methods with a drive towards seeking a "one-size-fits-all formula" (Ranstorp, 2006. p. 7), alongside a continuing reluctance towards improving the quality of research using empirical data to validate the presented theories and claims continues to hamper terrorism studies literature (Dolnik, 2013; Horgan, 2004, Young & Findley, 2011;

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[32] 26 percent of investigations utilised statistics (Silke, 2004). However, Silke (2009) noted that this number declined to 25 percent, but importantly there was a rise in the use of inferential statistics (6.9 to over 11 percent).

Schuurman & Eijkman, 2013). However, Silke's (2007) review demonstrates a trend in terrorism research: Advancements in empirical testing have started to provide rich contextual detail, offering information on circumstances and motivations, thus aiding the alteration in opinion.

Scholars argue various epistemological and methodological reasons for the continuing lack of empirical research. From difficulties gathering primary data, an over-reliance on secondary data (Dolnik, 2013; Silke, 2001; Schuurman & Eijkman, 2013), limited methodologies for gathering data (Schuurman & Eijkman, 2013), a lack of conceptual clarity and commitment to the field (Gunning, 2007), funding for novel research, and a lack of experienced researchers (Silke, 2009). Recent investigations are beginning to address these issues. Access to those involved in terrorism is now more readily available, leading to multiple interview investigations, which are providing rich data on the psychopathology and personality of certain groups of terrorists: Ranstorp (1994; 1997; 1998; 2006) engaged in vast amounts of field research whilst investigating Hezbollah. Merari, Diamant, Bibi, Broshi and Zakin (2009) Merari, Fighel, et al., (2009), Merari (2010), and Merari (2012) conducted clinical psychological examinations on terrorists, identifying significant differences in mental disorder between suicide and non-suicide actors. The empirical approach identified important psychological and sociological traits, with wide reaching implications for terrorist psychology research. Post, et al. (2003) conducted semi-structured interviews with incarcerated terrorists, providing evidence for group-based theories of terrorism. Rekawek (2011) utilised interviews to perform a comparative analysis of the Provisional IRA and Official IRA. For his PhD Research, Le Blanc (2012) compared different insurgency campaigns in South American Countries. Le Blanc employed field research from Argentina, Colombia, and Nicaragua, including interviews with former actors from the organisations. Veldhuis et al. (cited by Schuurman & Eijkman, 2013) evaluated a terrorist detention facility utilising interviews with government officials and inmates, alongside questionnaires. Busher (2016) carried out direct observations of behaviour in 16 months of immersive ethnographic research of English Defence League (EDL) within the UK.

The above research has produced a mixed evidence base for the role of psychopathology within terrorism, and in some cases, has been the subject of staunch contention. Merari et al.'s (2009; 2009; 2010; 2012) research has been subject to a major critique from Brym and Araj (2012, 2012a). Brym and Araj contended that Merari et al.'s research was subjective, and lacked consideration of external socio-political factors. Brym and Araj presented their own research as evidence to demonstrate that political and social roots, not psychopathology, were a major explanatory factor in suicide bombing. The resistance to

address psychopathology among terrorist researchers highlights the reluctance to move from the widely adopted acceptance the dichotomous conclusions spanning from group-based theories. However, as the seminal reviews covered in chapter one highlight, to move forward in understanding, it is necessary to pursue a middle ground between reductionism and nihilism. Martha Crenshaw remained an opponent to the search for a psychopathological answer of terrorist behaviour. Her research concluded there to be no specific psychopathological condition responsible for terrorism. Nevertheless, she did concede that members may exhibit identifiable traits (Crenshaw, 1986).

Other empirical investigations have statistically measured, and subsequently validated open source data, which is more freely available following technological expansions. Public source reports offer insight into the events surrounding an individual (Gill et al., 2014), and police, and familial and friend interviews can offer insight into the behaviours, characteristics, disposition, and other personal events not released to the wider public. Reliability of secondary data can be greatly enhanced by critical analyses of multiple information sources through cross referencing information and assessing the reliability of data sources. (Bowie & Schmid, 2011; LaFree & Dugan, 2007; Schmid, 2011). Contemporary research examining secondary data sources have offered novel knowledge concerning the psychopathology of those involved in terrorism. Gill et al. (2014) created a database using open source information for 119 lone-actor terrorists. Gruenewald and Pridemore (2012) utilised open source data from the Extremist Crime Database (ECDB) to analyse data on right wing terrorists. Gruenewald, Chermak, and Freilich (2013) used the ECDB to comparatively analyse lone-actor right wing terrorists with group right wing terrorists. Such investigations have offered previously unreachable insight into the underlying motivations and behaviours of terrorists. The following sections outline how the use of open source data is facilitating long-awaited innovations, and what they mean for the study of psychopathology and terrorism.

### 2.3.1 Moving Forward Through Disaggregation

#### 2.3.1.1 *Expanding Psychopathology*

Rather than following the work of periods one and two, and exclusively focusing upon psychopathy or specific personality types, recent studies started to disaggregate mental disorder, and consider the full range of diagnoses. This is a very important development. Specificity matters. For too long, the terrorist psychology literature was held back by narrow, linear assumptions that focused on prediction and dichotomous thinking. Disorders and their associated symptoms vary greatly, yet many analyses regarding terrorism treated them equally. This false dichotomy of mentally disordered versus terrorist led to a stagnant debate. The new

innovation is also important in terms of both early prevention and, if necessary, later risk assessment. By denying that mental health issues ever play a role, it casts aside a potential key partner in safeguarding people at risk of radicalisation and those who need psychological support post-disengagement.

Corner, Gill, and Mason (2016) studied diagnoses across a sample of 153 lone-actor terrorists. 1.3% experienced traumatic brain injury, 0.7% drug dependence, 8.5% schizophrenia, 0.7% schizoaffective disorder, 2.0% delusional disorder, 0.7% psychotic disorder, 7.2% depression, 3.9% bipolar disorder, 1.3% unspecified anxiety disorder, 0.7% dissociative disorder, 1.3% obsessive compulsive disorder, 3.3% PTSD, 0.7% unspecified sleep disorder, 6.5% unspecified personality disorder, and 3.3% autism spectrum disorder. Three disorders exhibited a higher prevalence in the lone-actor sample than in the general population (schizophrenia, delusional disorder, autism spectrum disorders). Three disorders exhibited a lower prevalence in the lone-actor sample than in the general population (depression, sleep disorders, and learning disabilities). Weenink (2015) examined police files of 140 Dutch individuals who attempted to become and became foreign fighters. 6% had diagnosed disorders. These included schizophrenia, psychosis, substance abuse/addiction, narcissistic personality disorder, attention deficit/hyperactivity disorder, attention deficit disorder, autism spectrum disorder/pervasive developmental disorder, and PTSD. Weenink outlines that the prevalence of schizophrenia and psychosis within this sample is higher than what is typically found within wider society. A further 20% of cases displayed indications of mental health problems but were undiagnosed at any point in their life. Both studies highlight the higher proportion of schizophrenia within their samples compared to the wider population. It is important to note, however, that neither sample are representative of the vast majority of terrorists. Whilst foreign fighters and lone-actors currently hold much of the media's attention, they are still in the vast minority compared to terrorists globally and across history.

Corner and Gill (2015) furthered this descriptive work. They utilised a sample of 119 lone-actor terrorists and investigated whether certain behaviours were more likely to occur with certain diagnoses than others. Those diagnosed with schizophrenia and associated disorders were the only diagnostic group to be significantly associated with previous violent behaviour, supporting past research in the general violence literature (Krakowski, Volavka and Brizer, 1986; Shaw et al, 2006). Individuals with personality disorders and autism spectrum disorders were less likely to have a spouse/partner related to a terror movement, which may be indicative of not having a spouse due to the detrimental nature on functioning of these disorders. Because symptoms of disorders often cross over diagnoses, it is important to focus analyses upon symptoms of mental disorders rather than purely the diagnoses themselves

(Douglas, Guy & Hart, 2009). Gottschalk and Gottschalk (2004) administered a widely used psychometric test of personality and psychopathology (the MMPI-2) to 90 incarcerated Palestinian and Israeli terrorists and to ethnically matched control groups. The terrorist sample scored higher on subscales measures psychopathic deviate, paranoid, depressive, schizophrenic, and hypomanic tendencies.

These four investigations collectively highlight that consideration of the study of mental disorder and its potential relationship with terrorist involvement is not futile. Each study involved some form of control and comparison group, demonstrating clear differences between groups. None claim mental disorder as a predictor for terrorist involvement. Nor do they claim a linear relationship between specific personality traits or specific mental disorders and terrorist engagement. Rather, they treat these factors as just one amongst many that typically manifest within the individual. Such studies are only at the outset and it is still far too early for generalisations.

### 2.3.1.2  Disaggregating the Terrorist

The study of the terrorist has also recently become more disaggregated. Investigations are expanding, with burgeoning interest in examining specific sub-types of terrorist actor (e.g. lone-actor, suicide bomber, foreign fighter). As Monahan (2012) notes, terrorism studies traditionally diverged greatly from the models employed in wider criminological studies. However, instead of "lumping" all forms of terrorism into one outcome variable (e.g. the criminal), investigators are now beginning to "split" the outcome variable (e.g. the arsonist, the sexual offender). This has led to some interesting conclusions with regards to mental disorder prevalence within various terrorist sub-samples (as anticipated in Victoroff's review of the literature in 2005).

Four studies compared[33] the rates of mental disorders to matched samples of group-actors. Hewitt (2003) carried out the earliest investigation, investigating over 3,000 terrorist incidents in the US between 1954 and 2000. Within the cohort, Hewitt compared lone and group-actors from an array of ideological backgrounds, identifying differences in disorder prevalence (22% vs. 8.1%). Gruenewald, et al., (2013) compared far-right group and lone offenders, finding lone offenders to be significantly more likely to experience mental health problems (7.6% vs. 40.4%). Corner and Gill (2015) compared 119 lone-actor terrorists with 428 group-based actors. Odds-ratios demonstrated that lone-actor terrorists were 13.5 times more likely to have a history of mental disorder than group-based actors. Corner, et al. (2016)

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[33] At the time of writing

examined these results further and found a negative correlation between the level of co-offending and the rate of mental disorder prevalence. Whereas their sample of lone-actor terrorists included over 40% with a history of mental disorders, the prevalence for solo-terrorists (e.g. those who carried out their attack alone but received support from a wider terrorist group) was around 20%, for dyads it was just over 5%, and for group-based actors it was less than 3%.

Other comparative investigations highlighted further differences. Merari and colleagues conducted multiple psychological tests on a sample of suicide bombers, comparing the results with control groups (e.g. other terrorists and non-political criminals) (Merari, 2010; Merari, 2012; Merari, Diamant, et al., 2009; Merari, Fighel, et al., 2009). These studies compared the suicide bomber and control groups through a range of techniques including clinical interviews, personality tests, the Thematic Apperception Test, and the House-Tree-Person Drawing test. The suicide bomber cohort received more diagnoses of Avoidant-Dependent Personality Disorder than the control group (60% vs. 17%). Significantly more potential suicide bombers than controls were classified as displaying suicidal tendencies (40% compared to 0%), and 53% of would be suicide terrorists were classified as having depressive symptoms, compared to 8% of controls. On the other hand, the control group was more likely to contain members with psychopathic tendencies (25% vs. 0%) and impulsive-unstable tendencies (67% vs. 27%). Finally, suicide bomber organizers scored higher in ego-strength, impulsivity, and emotional instability than would-be suicide bombers.

The rigor of the lone-actor studies and the consistency in their findings suggests that these results are reliable. The data utilised in Merari and colleagues (2009; 2009; 2010; 2012) suicide bomber study is largely unparalleled also. However, there is still little knowledge surrounding specific roles. Is there anything that differentiates the bomb-planter from the bomb-maker for example? Are there selection effects at play whereby recruiters place certain people in certain roles or is it self-selection whereby would-be recruits push for particular positions? What role, if any, does personality play in these dynamics?

## 2.4   Conclusion

The history of terrorism literature concerning psychopathology and personality has mirrored a pendulum's swing. Improvements in empirical evidence collection and analysis, alongside advancements in thought regarding terrorist involvement, psychopathology, and research focus, have unequivocally influenced the literature focus at each turn. Table 2.1

highlights this progression, and provides evidence of an evolution in thought regarding terrorist offenders.

**Table 2.1 History of the Study of Terrorist Psychopathology and Personality**

| Period | Empirical Evidence | Terrorist Involvement | Psychopathology | Focus of Research |
|---|---|---|---|---|
| Period 1- Psychopathy | No | Yes/No | Yes | Individual Drives [Homogeneous] |
| Period 2- Personality | No | Yes/No | Yes | Individual Drives [Homogeneous] |
| Period 4- Group | Yes | Yes/No | No | Selection Effects [Homogeneous] |
| Period 5- Pathway | Limited | Complex | Unknown | Terrorist Career [Homogeneous] |
| Individual Pathway | Yes | Complex | Continuum | Terrorist Career [Heterogeneous] |

Fortunately, many investigations recently moved away from such dichotomised thinking, and have looked to other academic fields, pursuing a knowledge of the interplay between mental disorder and violence and crime. The terrorism studies field has also undeniably improved in terms of theoretical, conceptual, and empirical rigor since the publication of the seminal reviews in period 3. Horgan (2014) notes an increase in "solid, quality research output" which has been facilitated by a growth in full-time dedicated researchers and, relatedly, research funding from a variety of government sources. Many of these developments have led to some alterations in thought surrounding mental disorder and terrorism. Conceptually, the finest examples of research, are those that do not seek mono-causal explanations, instead embracing the complexity of both human behaviour and terrorist involvement. Empirically, the prevalence of mental disorders has been highlighted on a number of occasions. Sub-group comparisons also demonstrate that some terrorist types are more likely to suffer mental disorders than other types. The results consistently highlight differences in prevalence rates across specific disorders within terrorist samples against comparison and control groups, and across aggregate disorder prevalence rates within terrorist sub-samples (e.g. lone versus group offenders). The data sources are also varied, from first-hand interviews, to the administering of psychometric testing, to court records, and other open-source avenues. Simply, data unavailability is no longer an excuse for the terrorism studies field to cite.

Given the aforementioned historical misinterpretations of previous reviews of the literature, I conclude chapters one and two with a clear (re-)statement of position on a number

of issues. It is not true that terrorists, like other criminal offenders, share a common psychological profile. The evidence suggests, however, that some types of terrorists may be more likely to possess certain psychological traits than the general population. The evidence also suggests that some types of terrorists may also be more likely to possess certain psychological traits than other types of terrorists. The evidence implies that within terrorist sub-samples where mental disorder prevalence is higher, the rates still fall below 50%. As asserted in other disciplines within psychopathology, no one mental disorder appears to be a predictor of terrorist involvement. Instead, for some terrorists, the experience of mental disorders may be just one of many 'risk' factors that pushed and pulled that individual into terrorist engagement. The presence of mental disorders also may be a by-product of terrorist activity and/or later disengagement from a terrorist group. Given the evidence highlighted in these two literature reviews, this thesis now moves towards building the empirical evidence base to highlight the importance of considering that psychopathology *may*, in some circumstances, play a role in terrorist behaviour.

Corner and Gill's (2015) investigation provides the starting point for the subsequent empirical chapters of this thesis. This investigation highlighted the need for further empirical research in specific areas. The investigation also provided a preliminary analysis comparing rates of mental disorder in lone- and group-actors, but only provided more in-depth inferential analyses of lone-actor terrorists. Chapters 3, 4, and 5 further this analyses by examining *why* the prevalence of mental disorder is so drastically different across lone- and group-actors. The investigation continually reflected that longitudinal data would strengthen and improve the conclusions and worth of the research. Chapters 5 and 6 seek to empirically examine longitudinal data, and present timelines and probability based analyses to fulfill this limitation. Corner and Gill also sought to examine if 'rationality' was affected in lone-actors with mental disorder. The results suggested that lone-actors with a mental disorder are not impeded by their condition to the extent speculated by other investigations. This was taken as a starting point for the next chapter, which utilises the same study design to statistically compare lone-actors, and a group of criminals who present with similar prevalence rates of mental disorder; mass murderers.

# Chapter 3. 'Irrationality' in Mental Disorder?

## 3.1 Introduction

Corner and Gill (2015) statistically refuted the current false dichotomy that individuals who commit an act of targeted violence are either a 'rational' terrorist, or an 'irrational', mentally unstable civilian. The results highlighted the need to validate this conclusion. This chapter utilises a comparison case of highly violent individuals who do not have a 'rational' political motive, mass murderers. The cases are taken from Horgan et al.'s (2016) dataset. The overarching conclusion from Horgan et al. was that there were limited differences across the underlying motivations and behaviours of lone-actor terrorists and mass murderers. This chapter seeks to expand on both the work of Horgan et al., and Corner and Gill (2015), examining whether, as in Corner and Gill (2015), there are differences in the motivations and behaviours of mentally disordered and non-mentally disordered offenders, and if there are differences in the motivations and behaviours of mentally disordered lone-actors and mass murderers.

## 3.2 Moving forward from "A False Dichotomy?"

Corner and Gill (2015) specifically sought to refute the claim that individuals with a mental disorder are incapable of 'rational' attack planning behaviours. Chapter one provided an in depth critique of the conflation of mental disorder with 'irrationality'. The seminal reviews of period three proposed that in certain situations, specific mental disorders are more easily identifiable, and therefore a group may reject individuals. However, the misinterpretations following these conclusions, made the uninformed leap to assume that this would be the case for all individuals with a mental disorder (Zartman, 2007; Post, 2009; Wilson, 2010; McDonald, 2013; Taylor, 2015). Despite the proliferation of this uninformed opinion, the majority of individuals with a mental disorder do not suffer from florid psychoses, and are capable of 'rational' thought processes, and as Borum (2013, p. 107), explains:

> "If the subject…[has] been given some diagnostic label, then there is a common tendency to regard that label as a master explanation of the subject's thinking, motives and behavior. It is not"

Research that started to challenge the assumption that individuals with an identifiable mental disorder are incapable of carrying out a politically motivated attack came from the threat assessment domain. This work focused on individuals who held a well-developed

grievance, but lacked a clear ideology. Fein and Vossekuil (1999) completed a wide ranging investigation on assassins and near lethal approachers, concluding that 61% had a history of mental disorder. Subsequent research across a range of demographics has validated these conclusions. Hempel, Meloy, and Richards (1999) investigated a sample of mass murderers within the United States. They concluded 50% had a documented psychiatric history. Meloy, Hempel, Mohandie, Shiva, and Gray (2001) found a prevalence of 23% concerning the psychiatric history of adolescent mass murderers.[34] Meloy et al. (2004) reviewed existing literature concerning threats, approaches, attacks, and assassination on public figures, finding "a significant proportion" of individuals under this nomenclature to have a mental disorder (p. 7). James et al. (2007) investigated attacks on politicians, identifying 54% of the cohort as mentally disordered. Finally, McCauley, Moskalenko, and Van Son (2013) identified high rates of "depression or despair"[35] (p. 13) in adult assassins and adolescent school attackers (44% and 78% respectively).

Conventional wisdom regarding 'irrationality' within psychopathology and terrorist involvement has also been more recently challenged, in a wide range of studies highlighting a larger than expected prevalence of mental disorders amongst samples of lone-actor terrorists who successfully carried out attacks (Borum, 2013; Corner & Gill, 2015; Gill, Horgan, & Deckert, 2014; Gruenewald, et al., 2013; Hewitt, 2003; Jasparro, 2010; McCauley & Moskalenko, 2013; Spaaij, 2010; Weenink, 2015). Corner and Gill (2015) were the first to specifically empirically address the deeply entrenched assumption of 'irrationality' equating to incapability. They highlighted that lone-actors with a mental disorder were just as likely to engage in 'rational' behaviours related to their attack planning as the non-mentally disordered comparison group. Collectively, the evidence highlights that the categorisation of (a) violent terrorists and (b) mentally disordered violent civilians is a false dichotomy.

The evidence has shown that both lone-actor terrorists and mass murderers show high rates of mental disorders. However, with few exceptions, the above studies rarely actually outline the content of these disorders and/or diagnoses. Instead they simply note a mental disorder is present. It begs the question therefore whether (a) the rates of mental disorders in general are similar across these offender types (b) whether different types of mental disorders are more closely correlated with different offender types and (c) whether these mentally disordered offenders in both categories display (dis)similar behavioural profiles to each other and to the non-mentally disordered offenders. These questions remain unanswered because the

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[34] Although this figure appears not to include substance abuse, as the authors noted that 62% of adolescents had a history of substance abuse

[35] Defined as reports of having suicidal ideation or attempts

terrorism literature rarely compares terrorist offenders with analogous cases or control groups (Victoroff, 2005).

In the context of terrorism, investigations highlighting similarities between ideological and non-ideological criminal acts would provide prevention agencies with direction for targeting and intervention. Investigations that have conducted a case control design within the field of terrorism include Gruenewald and Pridemore (2012), and Gruenewald et al.'s (2013) comparisons of far-right and homicide offenders, McCauley, Moskalenko, and Van Son's (2013) comparison of lone-actors and school assassins, and Lankford and Hakim's (2011) comparative analysis of suicide bombers and rampage shooters. These studies highlight similarities and differences between offender types, aiding understanding of the field of terrorism, and providing empirical data for prevention initiatives. Despite the great potential in comparing terrorist and non-terrorist offenders, some concerns remain. Freilich, Chermak, and Gruenewald (2014) note that due to the different motivations across offender types, comparison group designs may not offer a full explanation of the emergence of terrorists. Due to the nature of the subjects in this field, implementation issues persist as there are uncertainties over how the control sample is compiled. Freilich et al. (2014, p. 4) note:

> "One of the major challenges in a case–control design is to obtain a control sample that is representative of the population at risk of becoming a 'case'. If the sample excludes elements that are eligible for or at risk of victimization, then the covariates that distinguish cases from controls will not be exclusively factors that affect the risk of victimization".

Implementation of this research design in the field of terrorism remains embryonic, but mass murderers, as an analogous offender type provide opportunity for growth. Despite empirical advancements, many studies of lone-actor terrorism remain largely descriptive, highlighting multiple counter-intuitive findings, and define mental disorder as a yes/no dichotomy. The analyses by Corner and Gill (2015) break from this pattern, underscoring the importance of using rigorous inferential empirical methods to identify the role of different mental disorders in terrorist behaviour. Utilising two unique datasets, this chapter expands and improves the understanding of both offender types by developing scientific validity. It compares the sociological factors, antecedent behaviours and attack-related behaviours of a sample of 129 lone-and solo-actor terrorists with a sample of 116 mass murderers. In particular, following the suggestion of Freilich, et al. (2014), and the work of Corner and Gill (2015), the prevalence of mental disorder is used as a central dependent variable. This chapter

also follows the work of Gruenewald and Pridemore (2012), and Gruenewald et al. (2013), who compared terrorist offenders with non-ideologically motivated, lone homicide offenders.

## 3.3   Theory

### 3.3.1   Do Differences in Motivation and Behaviours Equate to Differences in 'Rationality'?

Early studies investigating mental disorder and criminal behaviour presumed an inflated prevalence of mental disorder within those who commit violence was inherently linked to dangerousness and 'irrationality'. Taylor (1985) examined motives for offending across prisoners. Motives were coded following interviews with offenders, and cross referenced with diagnosis (psychotic or non-psychotic disorder). Taylor concluded that psychotic prisoners were less likely to commit violence across a range of 'rational' motivations (e.g. self-defence, sexual gratification, calculated revenge, material gain, morbid jealousy), where-as they were more likely to commit violence for reasoning coded as 'motiveless'. Taylor also noted that within non-violent offences, psychotic individuals were more likely to be driven by delusions. More recent investigations, which have used comparative populations have produced opposing results. Morgan, Fishers, Duan, Mandracchia, and Murray (2010) utilised self-report measures to examine criminal thinking across mentally disordered and non-mentally disordered offenders. The results indicated that those with a mental disorder did not differ significantly across multiple measures of criminal thought and motivation, which encapsulated proactive, reactive, self-serving, impulsive, and antisocial processes. The results of these investigations highlight the evolution of thought regarding 'rationality' within the field of crime and mental disorder following improvements in objective empirical methods. This progression in thought has yet to permeate the field of terrorism.

Contemporary terrorism research almost exclusively focuses on the importance of group dynamics and collective identity, downplaying convoluted psychological processes inherent in individual behaviours and motivations; and has subsequently concluded there to be no role for psychopathology in terrorist behaviour. These conclusions are fuelled, at least in part, by aspects of stigma associated with mental disorder: The exploits of an individual with a psychopathological diagnosis are regarded as directly correlated to their illness (Borum, 2013). Terrorists are purported to utilise 'rational', strategic logic when responding to political opponents (Crenshaw, 1981; Kydd & Walter, 2006; Pape, 2003). Following misinterpretations of the seminal reviews, those with a mental disorder were presumed to lack 'rationality', leaving them incapable of planning, preparing, and executing politically motivated violence.

The rise in lone-actor terrorism research deviates from the presumed norm. This strand of research has provided consistently statistically valid results concerning behaviours and motivations of individuals. It highlights the comparatively high incidence of mental disorder alongside 'rational' planning, and action (Corner & Gill, 2015; Gill et al., 2014; Gruenewald et al., 2013; Weenink 2015).

Mass murderers are not presumed to utilise strategic logic to counter opponents. They are seen as mentally disordered, dispirited individuals, who act impulsively when reacting to their perceived grievance. Without investigation of the underlying motivations and behaviours, such grievances and actions attract an 'irrational' label (Fein & Vossekuil, 1999; Newman et al., 2004). Despite this overarching view, Lankford (2013) highlights the high preponderance of attack planning behaviours noted in mass murderers. Fein and Vossekuil (1999) investigated 83 individuals who attacked, or approached to attack prominent public figures, concluding that although certain motives were unclear, and difficult to determine, they argued that a range of 'rationally' held beliefs and reasoning lay behind attacks.

In the severely mentally disordered, indistinct motivations are presumed by others to lack 'rational' principles. However, the rationality-within-irrationality principle explains that within individuals experiencing severe psychoses, behaviours, thoughts, and beliefs perceived as 'irrational' by others, are seen as perfectly 'rational' by the individual experiencing them, as they believe their experiences reflect reality (Link & Stueve, 1994). Nestor, Haycock, Doiron, Kelly and Kelly (1995) constructed statistical profiles of psychotic individuals, concluding that a high proportion had organised delusional beliefs. Given the above conclusions, it is hypothesised:

**H1: Mentally disordered lone-actors and mass murderers are just as likely to display 'rational' attack planning behaviours as those with no diagnosis.**

Moving away from an aggregate viewpoint which considers 'rationality' as a single element, the following section expands the term, investigating a range of behaviours and motivations which may be affected by 'irrational' thought. The subsequent subsections therefore consider sociological factors, leakage behaviours, violence, and criminal behaviours.

### 3.3.1.1  Sociological Factors

The stigma surrounding mental disorder can lead to social rejection (Corrigan & Watson, 2001; Martin, Pescosolido, & Tuch, 2000). Those with an overt mental disorder, are presumed to display erratic and 'irrational' behaviours, and are stereotyped as dangerous and

socially undesirable, which consequently leads to prejudicial attitudes and avoidance (Corrigan & Watson, 2001). Corrigan, Green, Lundin, Kubiak, and Penn (2001) conducted a survey study, identifying stigmatising attitudes towards those with mental disorder. They identified positive correlations between perception of dangerousness, fear, and social distance.[36] Corrigan, Edwards, Green, Diwan, and Penn (2001) also identified that prejudicial attitudes about mental disorder positively influence social distance. However, there is also evidence that prolonged social isolation can be detrimental on an individual's mental health. The Social Isolation Hypothesis (Faris, 1934, as cited by Thoits, 1983) describes this theory. Thoits (1983) concluded that social relationships have a psychological impact, with positive relationships and interactions improving mental health. Elisha, Castle, and Hocking (2006) provide supporting evidence. In their sample of individuals with a psychotic illness, 58% were isolated socially. This evidence highlights the self-perpetuating problems faced by those with an overt mental disorder.

Within lone-actor terrorism, research has long hypothesised a link between mental disorder and group rejection, suggesting that those with a mental disorder are viewed as less desirable for action (Bueno de Mesquita, 2005; Horgan, 2005; Spaaij, 2010). [37] Corner and Gill (2015) questioned this assumption, explaining that inferences regarding recruitment processes and the rejection of those with an identifiable mental disorder rest on the presumption that attitudinal affinity moves individuals to seek acceptance into a group of co-ideologues. Corner and Gill suggested an alternate hypothesis, drawn from social movement theory, which rationalises that structural availability holds greater explanatory power. Predisposition and attitude to join an organisation is of little value if the individual does not encounter the structural opportunities necessary. Cohesion of attitudinal affinity and network factors is critical in motivating an individual towards action (Corner & Gill, 2015). Social isolation and avoidance removes structural availability, therefore no matter the strength of attitudinal affinity, an individual lacks the opportunity to join a group.

Much of the existing research on lone-actor terrorism, and mass murder has demonstrated a trend of social isolation across actors. Gill et al. (2014) highlighted that 52.9% of lone-actors were classified as socially isolated. Meloy et al. (2001) describe 70% of their sample of adolescent mass murderers as loners. In a review and consolidation of mass murderer

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[36] Defined as "the relative willingness of one person to participate in relationships of varying degrees of intimacy with a person who has a stigmatized identity" (Lauber et al., 2004). Desire for social distance was first measured by Bogardus (1933), and was almost exclusively used to examine cultural groups. However, over time, this scale has been subject to adaptations (Parillo & Donoghue, 2005) and is now more readily used across multiple situations, including psychopathology.

[37] A more in-depth critique of this reasoning is the subject of chapter four.

literature, Bowers et al. (2010) identify a major characteristic of mass murderers to be loneness. They explain these actors are often single, and lack a support network. Supporting this, Gruenewald et al. (2013) statistically demonstrated 42.9% of lone-actors were single, and 46.2% lived alone or away from a familial support network. Mullen (2004) presented five case studies of mass murderers, four of which were noted to be isolated from family and peers. Fein and Vossekuil (1999) coded and analysed cases of 83 individuals who had either approached, attacked or assassinated prominent public officials. 'Most' of these individuals were classified as isolated.

Given the consistency in social isolation across both lone-actors and mass murderers, alongside the high rates of mental disorder across both actor types, it may be tentatively hypothesised that there is a relationship between these two variables. However, Corner and Gill (2015) statistically demonstrated lone-actors with a mental disorder were no more likely than lone-actors without underlying psychopathology, to be classified as socially isolated (Bivariate findings of $X^2(1)=0.002$, $p=0.963$ indicated the similarities in the level of social isolation across actors). They also found no significant differences between individuals with and without mental disorder when examining group-related behaviours, including receiving training, face-to-face interactions, help in planning their attack, and group rejection. Given these findings it is therefore hypothesised:

**H2: Mentally disordered lone-actors and mass murderers are just as likely to be socially isolated as their non-mentally disordered counterparts.**

### 3.3.1.2 Leakage Behaviours

Alongside social behaviours within groups, social stigmatisation and presumed 'irrationality' are also linked to leakage behaviours. Leakage behaviours are warning behaviours which indicate to a third party an individual's interests, intentions, and attack planning (O'Toole, 2002; Meloy & O'Toole, 2012). Meloy and O'Toole (2012) explain that leakage forms vary, but can include verbal communication, letters, journals, blogs, emails, and other social media outlets. Horgan et al. (2016), Gill (2015), and Gill and Corner (2015) explain that offenders may conduct these behaviours for a variety of reasons, including; reinforcement of beliefs, seeking legitimisation from others for their planned actions, an initial unwillingness to carry out the attack alone, a lengthy planning process increasing the chances of an individual communicating with others, problems with the planning process causing an individual to seek help, a desire to increase support for their cause, and a fear of being portrayed as mentally disordered because their attack is seen as messageless.

O'Toole (2002) first investigated leakage behaviours in the threat assessment domain (Meloy & O'Toole, 2012). Subsequent empirical investigations span multiple offender types. Fein and Vossekuil (1999) investigated individuals who committed or attempted to commit assassinations of public figures. They concluded that although specific pre-attack warnings were quite rare, others close to the offender were often aware of the offender's interest in assassinations (44%), verbal and/or written communications about the target (77%), or indirect and/or direct threats toward the target (63%). Meloy et al.'s (2001) investigation of adolescent mass murderers in the U.S. highlighted that 44% of their 34 subject sample discussed murder with at least one other person prior to the event, and 58% of the actors making statements alluding to mass murder prior to the event. In 81% of Vossekuil, Fein, Reddy, Borum, and Modzeleski's (2002) sample of U.S. school shooters, at least one other individual was aware of the offender's intentions or specific plans for the attack. In 59% of the cases, more than one non-attack related person had prior knowledge. Vossekuil et al. (2002, p. 26) also explained that although most attacks were committed by lone individuals, in 44% of the cases the offender was "influenced by other individuals in deciding to mount an attack, dared or encouraged by others to attack, or both".

Investigation of leakage behaviours within lone-actor terrorism is still embryonic. Despite this, empirical investigations are finding consistent evidence of such behaviours. In Gill et al.'s (2014) empirical investigation of 119 lone-actor terrorists, 58.8% of individuals produced letters or public statements outlining their grievance prior to the event. In 82.4% of cases, others were aware of their grievance, in 79% of cases others were aware of the actor's ideology, and in 63.9% of cases close family and friends were aware of the actor's intent to commit an attack. Horgan et al. (2016) investigated 71 U.S. based lone-actor terrorists. They found that in 59% of cases, lone-actors made verbal statements to their close family and friends about their intent, and 24% of lone-actors attempted to recruit others for their attack.

Although both offender types show leakage behaviours, there is a discord in how these behaviours are perceived. In the terrorism domain, leakage would be considered as 'rational' attack planning, as an individual is seen to be showing coherent intentions of their ideology and planning (Pape, 2003). Because mass murderers hold a more personal and idiosyncratic grievance, these behaviours would not necessarily be understood and viewed as 'rational'. Fein and Vossekuil (1999) support this, highlighting that in their cohort of assassins or attempted assassins, leakage behaviours had been present for years prior to their attacks. They concluded that those who did show some form of leakage were significantly less likely to attack for a purely political reason, and were more likely to suffer from a mental disorder. Thanks to the false dichotomy surrounding terrorism and mental disorder, these distinctions are often

blurred. If a lone-actor shows evidence of mental disorder and displays leakage behaviour, then it is readily assumed that this is because they are 'irrational' (RT, 2014, December 16). However, Corner and Gill (2015) found that there was no significant difference in leakage behaviours between mentally disordered and non-mentally disordered lone-actors. Meloy and Gill (2016) furthered this, in their investigation of a sample of 111 lone-actor terrorists. They identified that leakage behaviours were not specific to ideology (Islamic Extremist; 79%, Right Wing; 88%, Single Issue; 87%), despite differences in rates mental disorder (Islamic Extremist; 32%, Right Wing; 40%, Single Issue; 53%). Therefore, it is hypothesised:

**H3: Mentally disordered lone-actors and mass murderers are just as likely to carry out leakage behaviours as their non-mentally disordered counterparts.**

### 3.3.1.3  *Violence and Aggression*

If mentally disordered lone-actors and mass murderers are capable of 'rational' attack planning, it is also necessary to identify whether such actors are capable of carrying out violent attacks. As chapter two highlighted, associations between mental disorder and violence continue to be fervently debated in academic literature. Although the literature has drastically improved in terms of scientific measurement and disaggregation, arguments still rage. This may be partly due to the conception of violence. Violence and underlying aggression are heterogeneous constructs, each with distinct aetiologies. Two primary forms of aggression are proactive and reactive (Dodge & Coie, 1987).[38] Proactive aggression is goal directed, and carried out to achieve a goal, whereas reactive aggression is a response to perceived provocation (Fite, Rathert, Colder, Lochman, & Wells, 2011). The instrumentality of proactive aggression, implies a well calculated agenda (Dodge, 1991), whereas, reactive aggression has been associated with impulsivity, reduced self-control, and high levels of anxiety (Raine et al., 2006). Given this, it might be prudent to expect higher levels of reactive aggression in those with specific types of mental disorder,[39] and higher levels of proactive aggression in those with no mental disorder.

Given the above evidence, it would be expected that lone-actors and mass murderers with and without mental disorder would be just as violent as each other, however, evidence from investigations of this theory has demonstrated a discord. Lone-actors and mass murderers with a mental disorder are more violent. James et al. (2007) identified that mentally disordered perpetrators of attacks on European politicians engaged in higher levels of violence than non-

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[38] Also termed instrumental and predatory (proactive), and affective, defensive (reactive)
[39] It is also expected that different underlying motivations will affect the type of aggressive response, supporting H7.

mentally disordered attackers. Corner and Gill (2015) found that mentally disordered lone-actors were significantly more likely to kill and injure in an attack, as well as have a history of violent behaviours. These investigations demonstrated that capability of violence was not impeded by the presumed 'irrationality' of these actors. Following from earlier theories of associations between mental disorder and violence (Hodgins et al., 2008; Rabkin, 1979), Phillips (2012) argued that 'irrationality' in mentally disordered lone-actors may actually be conducive to increased violence, as such actors do not consider the cost to themselves of more dangerous attack methods, and are more likely to use such methods than a 'rational' actor.

If the above evidence holds true, the levels of aggression and violence would be expected to be higher than those without a mental disorder:

**H4: Mentally disordered lone-actors and mass murderers are more violent than non-mentally disordered offenders.**

### 3.3.1.4 Criminal Behaviours

If H4 holds true, it would be prudent to expect such actors to also have prior criminal history. As chapter two highlights, following deinstitutionalisation, the prevailing view was that individuals with mental disorder were criminalised. Over 40 years of research followed, with both sides of the argument improving their empirical validity. The argument still continues, however, and this is also found in terrorism and threat assessment literature.

Corner and Gill (2015) statistically demonstrated there to be no difference in prior criminal conviction rates between mentally disordered and non-mentally disordered lone-actors. Weenink (2015) investigated police files of individuals who attempted to travel and travelled to the Middle East to join the Islamic State. Weenink identified high levels of mental health issues within this cohort. However, this study exclusively looked at those with an existing police record. Literature concerning mass murderers is equally as contradictory. Investigations that have sought to identify common traits across offenders have rarely included reports of criminal histories (Bowers et al., 2009; Hempel et al., 1999; Meloy et al., 2004; Meloy et al., 2001). Empirical investigations concerning assassins, attackers, and approachers of public figures show higher levels of criminal histories (Fein & Vossekuil, 1999). Scalora et al. (2002a) found evidence of prior arrests in one quarter of their sample of approachers. A second empirical investigation from Scalora et al. (2002b) highlighted that approachers had significantly more recorded criminal offences. These investigations were concerned with approachers, who did not carry out attack behaviours. Literature concerning individuals who carry out attack behaviours is less conclusive. Fein and Vossekuil (1998) identified that few

of their sample of assassins, attackers, and approachers had histories of arrest or incarceration. Whereas Meloy, James et al. (2004) cite a significant proportion of such individuals to have criminal histories. Given the differences in criminal histories between offender types, and the above empirical evidence when considering mass murderers, it is hypothesised:

**H5: Mentally disordered lone-actors and mass murderers are just as likely to have prior criminal histories as the non-mentally disordered.**

### 3.3.2 Moving Away from the Mentally Ill Yes/No Dichotomy

To improve our understanding of mental disorders and its role (or lack of) in the development of violent lone offenders, it is necessary to treat mental disorder as a spectrum rather than a dichotomous variable. This involves incorporating a consideration of different disorders into analyses. Different disorders display different symptoms (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), American Psychiatric Association, 2013; International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), World Health Organisation, 2010). Interpretation of mental disorder as a spectrum provides specific prevention mechanism suggestions, aiding security and policing agencies. Hiday and Burns (2010) reviewed evidence suggesting violence differences between disorders. Krakowski, et al., (1986) conducted a review of investigations concerning violence in the mentally disordered. Schizophrenia was concluded as the most reliable indicator, followed by personality disorders. Supporting and expanding on these findings, Swanson, Holzer, Ganju and Jono (1990) analysed survey data, identifying differing levels of violence across disorders, ranging from phobias to drug dependence. Brugha et al. (2005) note that psychosis prevalence within prisons is ten times higher than that within the general population. Coid et al. (2013) conducted a cross sectional study of disorder prevalence across nonviolent, violent, and gang member males. They highlighted that gang members show the highest prevalence across all disorder groups, followed by violent, and nonviolent males. As highlighted in chapter two, the differences in mental disorder prevalence found by these investigations may be due to differences in crime type. To aid direction of highly specific prevention strategies, further analyses focusing on specific criminal behaviour is essential. This investigation will therefore examine whether there are diagnostic differences between mentally disordered lone-actors and mass murderers:

**H6: There will be a difference in mental disorder prevalence between lone-actors and mass murderers**

Coupled with the differences in underlying motivation, if H6 holds true, it might suggest there are fundamental differences in the effect of psychopathology between these two offender groups. Mental disorder in mass murderers does not appear to alter their long-term propensity for action, but contributes towards a temporary change in motivation towards violence causing them to act. This is contrary to lone-actors, whose motivation is rooted in an ideological cause, developed over time, with mental disorder affecting their propensity towards violent action[40].

**H7: There will be differences in the motivations and behaviours of mentally disordered lone-actors and mass murderers**

## 3.4 Data

## 3.5 Method

Data for the following analyses are drawn from the lone-actor and mass murderer datasets.[41] Pertinent to this chapter's focus on 'rational' behaviours, analyses focus on mental disorder prevalence data, attack planning behaviours, social behaviours, leakage related behaviours, violent behaviours, and criminal behaviours. In total, 44 variables from the original 200 within the datasets are critically examined in this chapter. Appendix 1 lists all variables included in the analyses.

The below results depict the outcomes of a series of bivariate and multivariate statistical analyses. For the resulting statistics, where possible, there is distinction between 'unknown' missing data and 'no' answers. However due to the nature of the multivariate testing, data was required to be in a binary form, so it is expected that 'yes' answers are under-reported, as 'unknowns' were re-coded as 'no'.[42] For Hypotheses 1-5 this chapter follows the procedures of Corner and Gill (2015), and Gruenewald et al. (2013), conducting chi-square, and where appropriate, Fisher's exact tests, before including significant variables in binary logistic regression analyses. For Hypotheses 6 and 7 bivariate analyses are completed.

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[40] Evidenced by Corner and Gill (2015), who demonstrated that mentally disordered lone-actors were significantly more likely than non-mentally disordered lone-actors to kill and injure others in an attack.

[41] For an indepth description of these datasets please see page 27

[42] For an in depth discussion around missing data procedures, please see page 27

## 3.6    Results

Table 3.1 outlines the resulting significant differences across and between actors within variable subsets.

**Table 3.1 Observed Percentages for Significant Bivariate Analyses for Mentally Disordered and Non-Mentally Disordered Actors**

| | Lone-Actor | | Mass Murderer | |
|---|---|---|---|---|
| Variable | Non MD | MD | Non MD | MD |
| | N=75 | N=54 | N=60 | N=56 |
| **H1** | | | | |
| IED Event | **58.7%*** | 31.5% | --- | --- |
| Non-Discriminate Target | --- | --- | 31.7% | **50.0%*** |
| **H2** | | | | |
| Spouse/Partner in Wider Movement° | 0.0% | **13.0%*** | --- | --- |
| Virtual Interaction | 22.7% | **44.4%*** | --- | --- |
| **H3** | | | | |
| Others know Planning | --- | --- | 10.0% | **25.0%*** |
| **H4** | | | | |
| History of Violence | 32.0% | **50.0%*** | --- | --- |
| Violent Event Carried Out | 46.7% | **64.8%*** | --- | --- |
| Kill Others in Attack | 22.7% | **48.1%*** | --- | --- |
| Injure Others in Attack | 30.7% | **51.9%*** | --- | --- |
| **H5** | | | | |
| History of Substance Use | --- | --- | 30.0% | **58.9%*** |

**NB: --- = No significant value, \*=p<0.05, \*\*=p<0.01, \*\*\*=p<0.005,  °Removed from further analyses due to absolute values**

**H1: Mentally disordered lone-actors and mass murderers are just as likely to display 'rational' attack planning behaviours as those with no diagnosis.**

The above results support rejection of the null hypothesis, as they indicate few differences in planning behaviours across cohorts. Lone-actors who utilised an Improvised Explosive Device (IED) in their attack were less likely to be mentally disordered ($X^2(1)=9.308$, $p=0.002$, OR=3.000). There were also associations that approached significance which indicated that lone-actors with a mental disorder are capable of coherent planning activities: Lone-actors who had a history with the event location were more likely to have a mental disorder ($X^2(1)=2.932$, $p=0.087$, OR=2.000); and lone-actors who discriminated between targets were 1.988 times more likely to have a mental disorder ($X^2(1)=3.045$, $p=0.081$, OR=1.988).

The results for mass murderers also showed incongruities. The majority of variables tested showed no significant associations with mental disorder. The only significant

association with mental disorder was found in individuals who were non-discriminate in target selection during their attack execution ($X^2(1)=4.040$, p= 0.044, OR=2.158). Other variables which approached significance highlighted that in some instances, mass murderers with a mental disorder were more likely to carry out 'rational' planning behaviours. Mass murderers who utilised the internet to facilitate learning for their attack were more likely to have a mental disorder ($X^2(1)=2.910$, p=0.088, OR=3.167), as were mass murderers who targeted the military (Fisher's Exact Test; p=0.051), and mass murderers who targeted the government were less likely to have a mental disorder ($X^2(1)=2.904$, p=0.088, OR=3.120).

### H2: Mentally disordered lone-actors and mass murderers are just as likely to be socially isolated as their non-mentally disordered counterparts.

The results imply that the null hypothesis can be rejected. Across the variety of variables testing social isolation, only two highlighted significant associations with mental disorder, and both of these variables imply healthy social connections. Lone-actors with a spouse or partner who was involved in a wider movement were more likely to have a mental disorder (Fisher's Exact Test; p=0.002), as were lone-actors who interacted virtually with like-minded individuals ($X^2(1)=6.868$, p=0.009, OR=2.729). No significant behavioural differences were found between mentally disordered and non-mentally disordered mass murderers.

### H3: Mentally disordered lone-actors and mass murderers are just as likely to carry out leakage behaviours as their non-mentally disordered counterparts.

Within the cohort of lone-actors, no significant differences between mentally disordered and non-mentally disordered individuals were identified. This indicates that the null hypothesis can be rejected. Two leakage related behaviours did approach significance. Lone-actors who provided a public claim of responsibility were more likely to have a mental disorder ($X^2(1)=2.869$, p=0.090, OR=1.840), and lone-actors who expressed regret/remorse after their capture were more likely to have a mental disorder ($X^2(1)=3.288$, p=0.070, OR=2.275). Within the mass murderer cohort, only one significant association was identified. Mass murderers who informed others of their planning and attack preparations were more likely to have a mental disorder ($X^2(1)=4.568$, p=0.033, OR=3.000).

### H4: Mentally disordered lone-actors and mass murderers are more violent than non-mentally disordered offenders.

The results indicate that for mass murderers, the null hypothesis cannot be rejected, as there were no significant associations identified between mass murderers. However, the null

hypothesis can be rejected with confidence for lone-actors. Within this cohort, those who had a documented history of violence behaviour were more likely to have a mental disorder ($X^2(1)=4.255$, $p=0.039$, OR=1.033). Lone-actors who carried out a violent attack were more likely to have a mental disorder ($X^2(1)=4.166$, $p=0.041$, OR=2.105). Individuals who injured and killed others in their attack were also more likely to have a mental disorder ($X^2(1)=5.894$, $p=0.015$, OR=2.435; $X^2(1)=9.173$, $p=0.002$, OR=2.105). One further association approached significance; those who expressed a desire to hurt others were more likely to have a mental disorder ($X^2(1)=3.835$, $p=0.050$, OR=2.126).

**H5: Mentally disordered lone-actors and mass murderers are just as likely to have prior criminal histories as the non-mentally disordered.**

Only one behaviour was found to have a significant association with mental disorder. Mass murderers who had a history of substance misuse were more likely to have a mental disorder ($X^2(1)=9.839$, $p=0.002$, OR=3.348).

### 3.6.1   Binary Logistic Regression

Behaviours do not occur in isolation, so to determine the probability that mental disorder occurs in lone-actors and mass murderers given the predictor variables significant and approaching significance in bivariate analyses, binary logistic regressions were computed.

Concerning lone-actors; the analysis showed that in combination, the independent variables significantly impacted on mental disorder ($X^2(11)=41.624$, $p<0.001$). The model correctly predicted 73.6% of responses. Significant results are demonstrated in Table 3.2. The results illustrate a variety of behaviours, in combination, significantly impact on mental disorder. Lone-actors who carried out an IED attack were 3.39 times more likely to not have a mental disorder. However, those who expressed regret or remorse at their actions were 5.850 times more likely to be diagnosed with a mental disorder. Lone-actors who interacted virtually with like-minded individuals were 4.486 times more likely to have a mental disorder, and those who had a history of violence were 3.079 times more likely to have a mental disorder

**Table 3.2 Binary Logistic Regression Analysis of Mentally Disordered and Non-Mentally Disordered Lone-Actors**

| Variable | B(SE) | Sig. | 95% CI for Odds Ratio | | |
| --- | --- | --- | --- | --- | --- |
| | | | Lower | Exp(B) | Upper |
| History with Location | 0.207(0.506) | 0.683 | 0.457 | 1.230 | 3.312 |
| Violent Event Carried Out | -0.596(0.754) | 0.429 | 0.126 | 0.551 | 2.415 |
| IED Event | -1.222(0.478) | 0.011* | 0.116 | 0.295 | 0.751 |

| Variable | B(SE) | Sig. | Lower | Exp(B) | Upper |
|---|---|---|---|---|---|
| Discriminate Target | 0.429(0.510) | 0.400 | 0.565 | 1.536 | 4.178 |
| Expressed Regret/Remorse | 1.766(0.606) | 0.004*** | 1.784 | 5.850 | 19.188 |
| Virtual Interaction | 1.501(0.491) | 0.002*** | 1.715 | 4.486 | 11.734 |
| Public Claim of Responsibility | 0.898(0.464) | 0.053 | 0.987 | 2.454 | 6.098 |
| Desire to Hurt Others | 0.272(0.481) | 0.572 | 0.511 | 1.312 | 3.367 |
| History of Violence | 1.125(0.472) | 0.017* | 1.221 | 3.079 | 7.764 |
| Kill Others in Attack | 0.949(0.637) | 0.136 | 0.741 | 2.583 | 9.004 |
| Injure Others in Attack | 0.530(0.655) | 0.418 | 0.471 | 1.700 | 6.138 |
| Constant | -2.226(0.671) | 0.001 | | 0.108 | |

NB: *=p<0.05, **=p<0.01, ***=p<0.005

Within the mass murderer cohort, the analysis showed that in combination, the independent variables significantly impacted on mental disorder $(X^2(5)= 20.931, p<0.001)$. The model correctly predicted 66.4% of responses. Significant results are demonstrated in Table 3.3. The results illustrate that only one behaviour significantly impacts on mental disorder. Mass murderers with a history of substance use were 3.162 times more likely to have a mental disorder.

**Table 3.3 Binary Logistic Regression Analysis of Mentally Disordered and Non-Mentally Disordered Mass Murderers**

| Variable | B(SE) | Sig. | 95% CI for Odds Ratio | | |
|---|---|---|---|---|---|
| | | | Lower | Exp(B) | Upper |
| Virtual Learning | 1.146(0.770) | 0.137 | 0.696 | 3.146 | 14.221 |
| Government Target | -1.217(0.749) | 0.104 | 0.068 | 0.296 | 1.285 |
| Non-Discriminate Target | 0.308(0.442) | 0.486 | 0.572 | 1.361 | 3.236 |
| Others know Planning | 1.104(0.582) | 0.058 | 0.964 | 3.017 | 9.441 |
| History of Substance Use | 1.151(0.423) | 0.006** | 1.381 | 3.162 | 7.240 |
| Constant | -0.874(0.322) | 0.007 | | 0.417 | |

NB: *=p<0.05, **=p<0.01, ***=p<0.005

**H6: There will be a difference in mental disorder prevalence between lone-actors and mass murderers**

The prevalence of mental disorder across lone-actors was 41.9%, with the corresponding prevalence in mass murderers, 48.3%.[43] As the data are binary categorical, a chi-square test and the accompanying odds ratio were computed. The results demonstrated a non-significant association between actor type and mental disorder, $X^2(1)= 1.016, p=0.313$.

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[43] This is comparatively higher than demonstrated within a general population (25.0%, Alonso et al., 2004; 27.4%, Kessler et al., 2007).

As highlighted in chapters one and two, it is not enough to present a dichotomous conclusion. Mental disorder was therefore disaggregated to determine which disorders were more prevalent in lone-actors and mass murderers. Figure 3.1 visualises these differences, with lone-actors showing a stronger association with schizophrenia, these actors were almost twice as likely (11.6% vs. 6.03%) to be diagnosed with schizophrenia. Whereas mass murderers show a stronger association with major depressive disorder (12.1% vs. 7.8%). Both lone-actors and mass murderers show higher associations with schizophrenia, delusional disorder and personality disorders, compared to the general population. Lone-actors showed stronger association with autism spectrum disorders, compared to the general population. Whereas mass murderers show stronger associations with drug dependence than the general population. Significant differences between actors were identified only in one disorder. Drug dependence was significantly associated with mass murderers $X^2(1)=5.348$, $p=0.021$, mass murderers were 8.2 times more likely to have substance dependence problems.
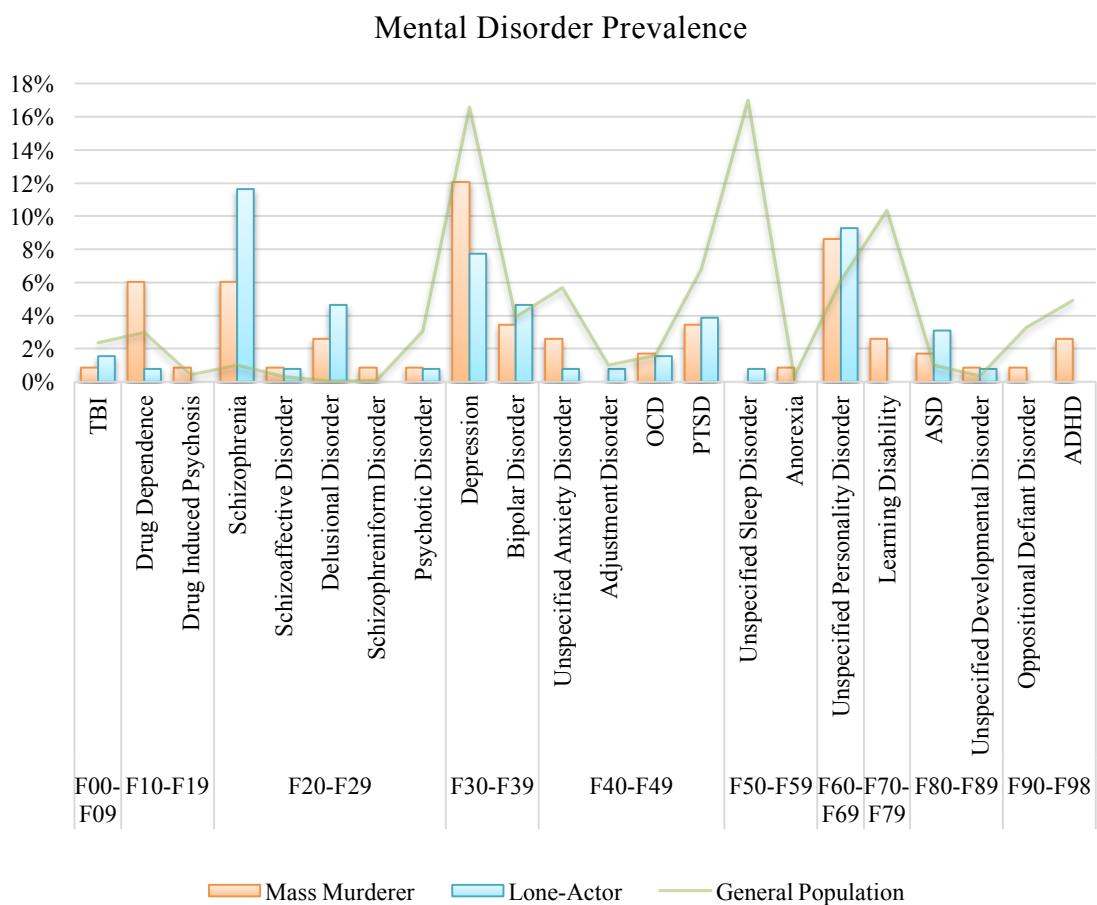


Figure 3.1 Differences in Mental Disorder Prevalence across Lone-Actors and Mass Murderers

**H7: There will be differences in the motivations and behaviours of mentally disordered lone-actors and mass murderers**

Given the differences in specific disorder (and therefore symptom) presence, it may be prudent to expect differences in behaviours and motivations between mentally disordered lone-actors and mass murderers. Below are the resulting bivariate and multivariate statistics for comparison of behaviours between mentally disordered lone-actors and mass murderers only.

Tables 3.4 – 3.8 highlight the significant associations from variables in appendix 1. The results highlight many significant associations with specific behaviours across mentally disordered lone-actors and mass murderers. Table 3.4 follows H1, investigating rational planning behaviours. Lone-actors with a mental disorder were significantly more likely than mass murderers with mental disorder to carry out a range of planning behaviours, which would be interpreted as 'rational'; reading literature, learning online (5.181 times more), stockpiling weapons (2.825 times more), and targeting entities connected to their ideology (6.173 times more likely to attack a government target, 6.897 times more likely to attack a religious target). Mass murderers, however, appear to show more spontaneous attack behaviours, with significant associations with less 'rational' planning behaviours such as targeting non-discriminately (3.154 times more), attacking a private location (3.467 times more) which they had a personal connection to (10.444 times more), and not planning a getaway (3.487 times more).

**Table 3.4 Bivariate Statistics for Mentally Disordered Actors for Behaviours Identified in H1**

| Variable | Lone-Actor | Mass Murderer | X² | P | 95% CI Lower | Odds | Upper |
|---|---|---|---|---|---|---|---|
| Ideological Change | **20.4%** | 1.8% | 9.770 | 0.002 | 0.009 | 0.071 | 0.572 |
| Ideological Intensify | **44.4%** | 3.6% | 24.445 | 0.000 | 0.010 | 0.046 | 0.210 |
| Virtual Sources to learn | **46.3%** | 14.3% | 13.414 | 0.000 | 0.077 | 0.193 | 0.485 |
| Dry Runs | **37.0%** | 3.6% | 19.243 | 0.000 | 0.014 | 0.063 | 0.287 |
| Conducted Research | **42.6%** | 12.5% | 12.551 | 0.000 | 0.074 | 0.193 | 0.502 |
| Literature/Propaganda from Wider Movement | **59.3%** | 1.8% | 43.242 | 0.000 | 0.002 | 0.013 | 0.097 |
| Literature other lone offenders | **22.2%** | 7.1% | 5.029 | 0.025 | 0.081 | 0.269 | 0.896 |
| Propaganda of other lone offenders | **18.5%** | 3.6% | 6.319 | 0.012 | 0.034 | 0.163 | 0.783 |
| Travel for Prep | **22.2%** | 1.8% | 11.017 | 0.001 | 0.008 | 0.064 | 0.509 |
| Used Drugs Prior to Attack | 7.4% | **25.0%** | 6.217 | 0.013 | 1.275 | 4.167 | 13.621 |
| Targeted Property | **38.9%** | 7.1% | 15.776 | 0.000 | 0.038 | 0.121 | 0.384 |
| Government Target | **25.9%** | 5.4% | 8.901 | 0.003 | 0.044 | 0.162 | 0.601 |
| Private Citizen Target | 25.9% | **71.4%** | 22.775 | 0.000 | 3.082 | 7.143 | 16.555 |
| Religious Target | **11.1%** | 1.8% | 4.012 | 0.045 | 0.017 | 0.145 | 1.251 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Private Location | 27.8% | **57.1%** | 9.687 | 0.002 | 1.563 | 3.467 | 7.690 |
| History with Event Location | 33.3% | **83.9%** | 29.112 | 0.000 | 4.203 | 10.444 | 25.956 |
| Stockpile Weapons | **61.1%** | 35.7% | 7.102 | 0.008 | 0.163 | 0.354 | 0.766 |
| IED Event | **31.5%** | 1.8% | 17.713 | 0.000 | 0.005 | 0.040 | 0.310 |
| Multiple Attack Methods | 9.3% | **25.0%** | 4.767 | 0.029 | 1.086 | 3.267 | 9.825 |
| Non Discriminate Target | 24.1% | **50.0%** | 7.903 | 0.005 | 1.397 | 3.154 | 7.122 |
| Opportunistic Getaway | 11.1% | **30.4%** | 6.158 | 0.013 | 1.255 | 3.487 | 9.691 |
| Plans for further attacks | **53.7%** | 17.9% | 15.436 | 0.000 | 0.079 | 0.187 | 0.447 |

Table 3.5 highlights that although mentally disordered lone-actors were 2.294 times more likely to be classified as socially isolated. However, they were also significantly more likely to carry out a range of social behaviours, compared to mass murderers. Table 3.6 highlights significant associations between actor types and leakage behaviours. The results support the earlier supposition that lone-actors 'leak' their intent and grievance to others to convey their ideology. Mentally disordered lone-actors were significantly more likely to carry out a wide range of leakage behaviours, informing a wide range of individuals of their grievance and intent prior to their apprehension, and were significantly more likely to continue these behaviours after their attack.

**Table 3.5 Bivariate Statistics for Mentally Disordered Actors for Behaviours Identified in H2**

| | | | | | 95% CI | | |
|---|---|---|---|---|---|---|---|
| Variable | Lone-Actor | Mass Murderer | $X^2$ | p | Lower | Odds | Upper |
| Socially Isolated | **50.0%** | 30.4% | 4.420 | 0.036 | 0.200 | 0.436 | 0.951 |
| Spouse/Partner in Movement | **13.0%** | 1.8% | 5.093 | 0.024 | 0.122 | 0.014 | 1.028 |
| F2F Interaction | **44.4%** | 3.6% | 25.445 | 0.000 | 0.010 | 0.046 | 0.210 |
| Virtual Interaction | **44.4%** | 3.6% | 25.445 | 0.000 | 0.010 | 0.046 | 0.210 |
| Group Claim | **40.7%** | 0.0% | 28.519 | 0.000 | --- | --- | --- |

**NB: --- = No value available as computed through Fisher's Exact Test**

**Table 3.6 Bivariate Statistics for Mentally Disordered Actors for Behaviours Identified in H3**

| | | | | | 95% CI | | |
|---|---|---|---|---|---|---|---|
| Variable | Lone-Actor | Mass Murderer | $X^2$ | p | Lower | Odds | Upper |
| Letters/Statements Prior | **61.1%** | 14.3% | 25.781 | 0.000 | 0.042 | 0.106 | 0.268 |
| Statements to Family/Friends | **59.3%** | 33.9% | 7.093 | 0.008 | 0.163 | 0.353 | 0.766 |
| Others Aware Grievance | **81.5%** | 42.9% | 17.376 | 0.000 | 0.072 | 0.170 | 0.406 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Others Know Planning | **44.4%** | 25.0% | 4.597 | 0.032 | 0.186 | 0.417 | 0.935 |
| Recruit Others | **25.9%** | 3.6% | 11.052 | 0.001 | 0.023 | 0.106 | 0.492 |
| Join Wider Group | **27.8%** | 3.6% | 12.328 | 0.000 | 0.021 | 0.096 | 0.446 |
| Produce Propaganda | **64.8%** | 10.7% | 34.415 | 0.000 | 0.024 | 0.065 | 0.180 |
| Letters Post Event | **33.3%** | 14.3% | 5.526 | 0.019 | 0.130 | 0.333 | 0.852 |
| Public Claim Responsibility | **53.7%** | 25.0% | 9.513 | 0.002 | 0.128 | 0.287 | 0.644 |

Tables 3.7 and 3.8 highlight significant differences between mentally disordered actors when considering violent and criminal behaviours. Table 3.7 shows that mentally disordered lone-actors and mass murderers show significantly different violent tendencies. Lone-actors were 2.304 times more likely to express a desire to hurt others, which may be linked to the earlier mentioned leakage behaviours. They were also 2.294 times more likely to have a history of violence. Whereas mass murderers were 2.321 times more likely to injure others in their attack.[44] Mentally disordered lone-actors and mass murderers also different significant associations with criminal behaviours. Lone-actors were 2.398 times more likely to have close relationships with others involved in criminality, and mass murderers were 4.525 times more likely to have a history of drug use.

**Table 3.7 Bivariate Statistics for Mentally Disordered Actors for Behaviours Identified in H4**

| Variable | Lone-Actor | Mass Murderer | $X^2$ | P | 95% CI Lower | Odds | Upper |
|---|---|---|---|---|---|---|---|
| Express Desire to Hurt Others | **74.1%** | 55.4% | 4.208 | 0.040 | 0.194 | 0.434 | 0.971 |
| History of Violence | **50.0%** | 30.4% | 4.420 | 0.036 | 0.200 | 0.436 | 0.951 |
| Injure Others in Attack | 51.9% | **71.4%** | 4.464 | 0.035 | 1.056 | 2.321 | 5.105 |

**Table 3.8 Bivariate Statistics for Mentally Disordered Actors for Behaviours Identified in H5**

| Variable | Lone-Actor | Mass Murderer | $X^2$ | P | 95% CI Lower | Odds | Upper |
|---|---|---|---|---|---|---|---|
| Substance Abuse History | 24.1% | **58.9%** | 13.726 | 0.000 | 1.993 | 4.525 | 10.276 |
| Close Associates Criminal Activity | **31.5%** | 16.1% | 3.617 | 0.057 | 0.167 | 0.417 | 1.041 |

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[44] The variable 'kill others in the attack' was not included in this analysis, as by definition mass murderers were only included if they did kill.

Given these significant differences, alongside the earlier differences in disorder prevalence, it was necessary to determine if the differences in behaviour between mentally disordered lone-actors and mass murderers are due to mental disorder or to underlying motivation. A multinomial regression was run, using all variables significant in bivariate analyses, examining interactions between disorder groups, actor type, and behaviour. Across all behaviours, no significant differences were found between disorder groups and actors.

## 3.7    Discussion

This chapter focused on mental disorder as the central unit of analysis to determine whether presumptions regarding lone offenders' 'rationality' are correct. This decision was founded on evidence in the literature review, which highlighted a need to further investigate the role of mental disorder, and compare these findings with a comparison group. This chapter expands the empirical knowledge of both lone-actors and mass murderers, providing causal explanations of behaviour. Seven hypotheses were generated and tested based on earlier research from multiple academic areas and open source data. Through examination of multiple variables within each hypothesis, resulting statistics exhibit evidence of highly specific behaviours within larger, less specific behaviour classes. The results demonstrate differences both within and between actor types, and highlight the need to readjust understanding of mental disorder and terrorism in numerous ways.

The first conclusion to be taken from this chapter is that mental disorder does not appear to significantly impact on a lone offenders' 'rationality'. Of the 150 behaviours examined across both cohorts, only 18 (12 for lone-actors, 6 for mass murderers) showed significant differences in bivariate examination between mentally disordered and non-mentally disordered offenders. In multivariate analyses, this figure dropped again (5 for lone-actors and 2 for mass murderers). This discrepancy in difference serves to highlight that the conflation of mental disorder with 'irrationality' (McDonald, 2013; Post, 2009; Taylor, 2015; Wilson, 2010; Zartman, 2007) is false.

Within this conclusion, there were a number of significant differences in 'rational' behaviours between mentally disordered and non-mentally disordered offenders. Lone-actors with a mental disorder were significantly more likely to have a history with the attack location, and be discriminate in their target choice, supporting Gill's (2015) suggestion that lone-actor ideology can be based on a complex integration of a personalised grievance with a political aim. That a mentally disordered lone-actor would target an entity that they have a connection to fits with routine activities theory (Cohen & Felson, 1979). This theory explains that

offenders choose targets they are familiar with based on 'rational' and coherent decision making processes. Replicating the findings of Corner and Gill (2015), lone-actors with a mental disorder were not more likely to be socially isolated. The results demonstrate that these offenders are significantly more likely to have vicarious social connections to groups (involved in a relationship with a group member, and virtual interaction). The lack of significance across closer interaction types demonstrates the similarities in social interactions between mentally disordered and non-mentally disordered lone-actors. With regards to leakage behaviours, lone-actors with a mental disorder were no more likely to inform others of their intentions prior to the attack, but they were significantly more likely to claim responsibility publicly post-attack. This behaviour may be different across mentally disordered and non-mentally disordered due to the timing of their diagnosis. Many lone-actors are diagnosed at trial, and their public declarations may be an attempt to be seen as a legitimate terrorist, and not a mentally disordered individual. An example of this behaviour comes from Anders Breivik, who was desperate to declare his ideology following his psychiatric evaluations (Orange, 2012). The main behavioural differences between mentally disordered and non-mentally disordered lone-actors supports H4. Mentally disordered lone-actors were significantly more likely to carry out a wide range of violent behaviours, supporting the findings of Corner and Gill (2015) and James et al. (2007). Mentally disordered lone-actors were significantly more likely than non-mentally disordered lone-actors to kill and injure others in their attack, highlighting their capability. The open desire to hurt others may be indicative of reactive aggression, but to conclude this, further work is required to understand what this desire was based on, and what was included in the actors' histories of violence.

Mass murderers with a mental disorder were significantly more likely to show more coherent attack plans than expected. They were more likely be non-discriminate in target choice, opting for greater impact during their attack, attack a military target, use online sources to learn and prepare for their attack, and inform others of their plans. These results highlight the need to disaggregate within offenders, as although previous literature has suggested that mass murderers act impulsively against personal targets (Malkki, 2014), these results show within this cohort, those with a mental disorder form a coherent plan for their attack.

Within lone-actors, 57% of behaviours identified as significant in the bivariate analyses were also significant in the logistic regression analysis. These variables provide implications for direction for police, mental health, social work, and security agencies (Van Buuren & De Graaf, 2014), as individuals noted as displaying such variables may be vulnerable towards lone-terrorist action. This is contrary to mass murderers, where only two behaviours significant in bivariate analyses provided significant implications for practice in

multivariate analyses. It is noted that due to the high preponderance of death (54.3% died in the event compared to 8.5% of lone-actors) within the mass murderer cohort, the source information was greatly reduced, and post hoc information on mental disorder was not available. Therefore, the data concerning mass murderers should be treated as a minimum value. Alongside these conclusions, the results show that between offender differences were not replicated across offender types, giving support for H6 and H7 that differences in disorder prevalence may highlight differences in underlying motivations. The differences across actor type are further explained below.

The resulting empirical evidence highlights differences in specific mental disorder prevalence across lone-actors and mass murderers. This conclusion is not unexpected, as previous evidence has consistently demonstrated high levels of mental disorder across mass murderers, whereas debate remains in lone-actor terrorism research (Moskalenko & McCauley, 2011; Pantucci, 2011). Although there was a lack of significance for differences of overall prevalence, the results did highlight differences between specific disorders.

Following this, bivariate analyses determined there to be multiple behavioural differences between mentally disordered lone-actors and mentally disordered mass murderers. Conventional wisdom would suggest that, given the high levels of schizophrenia and delusional disorder in lone-actors, these offenders conducted less 'rational' planning and execution behaviours. However, the results highlight that mentally disordered lone-actors were significantly more likely to conduct research for their attack (learned online, conducted dry runs, travelled for preparatory activities, stockpiled weapons, read literature and propaganda of other terrorists, planned for further attacks) and reach out to like-minded individuals (interacted online, interacted face to face, tried to recruit others) whereas mentally disordered mass murderers did not demonstrate the same level of planning and were more isolated in their social activities.

The significant differences within leakage behaviours validates the earlier suggestion that lone-actors feel a need to explain their actions, verbalising their ideology. That lone-actors were significantly more likely to express a desire to hurt others is linked to their leakage behaviours. Despite the pronouncements of lone-actors, mass murderers were significantly more likely to be described as angry in the run up to their attack. This anger is also demonstrated in the difference in the injury rate between the two actor types.

Given these results, multivariate analyses were implemented to discern whether the behavioural differences were due to disorder prevalence or to underlying motivation.

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Multinomial regression analyses showed that, when considering disorder groups, no significant differences in behaviour were found across actors. These results support the initial analysis. Differences in behaviours across mentally disordered actors are not due to differences in disorder, they are due to differences in motivation. The results of this chapter highlight that mentally disordered lone-actors and mass murderers are no less 'rational' than non-mentally disordered actors, and their behaviour is guided by their motivation, not their disorder.

With the type of data analysed in this chapter, it was not possible to discern all dates of convictions or psychiatric diagnoses[45], and the next step in this research strand ought to complete analyses to determine timeframes between disorder onset, criminal and violence histories, and terrorist actions. Research and comparison of earlier violence and criminal activity could also provide policing agencies with 'profiles' of individuals who carry out comparable criminal patterns prior to a terrorist attack (such as Smith, Damphousse & Robert's (2006) "pre-incident indicators) thus aiding prevention initiatives.

The predominant underlying limitation of this chapter concerns the amount of data available. The most evident illustration of this was highlighted in the bivariate and multivariate statistics, which gave less insight into motivations and behaviours of mass murderers, compared to lone-actors. Freilich et al. (2014) highlight the issues encountered when investigating terrorists.

"terrorism databases differed from some criminological studies because they are not static. Researchers constantly identify new information that relates to previously identified cases, and thus, the values of attributes are often updated" (p. 11).

Nevertheless, by using mass murderers as a comparison group, it is possible to advance empirical evidence, identifying behaviours and motivations of these offenders, alongside strengthening current research concerning lone-actors, aiding prevention initiatives.

Coverage of recent mass killings has shown that the false dichotomy continues to rage. The cases of Dylann Roof, Man Haron Monis, Michel Zehaf-Bibeau, Omar Mateen, and Mohamed Lahouaiej-Bouhlel have all attracted wide media coverage, mainly because of the argument surrounding how their actions should be labelled (Patel & Tierney, 2015; Safi, 2015, August 25; Shariatmadari, 2016) due to their suspected mental disorder. The findings of this chapter highlight however, lone-actors with psychopathology show specific behaviours not

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[45] Despite the diagnostic reliability procedures

seen in mass murderers, are capable of planning and executing sophisticated terrorist attacks, and more likely to engage in specific behaviours than non-mentally disordered actors, which security and policing agencies can use to monitor and prevent developments in attack planning and execution.

These behaviours demonstrate how risk can crystallise within an individual. Multidisciplinary cohesion offers the most productive outlet for reducing instances of lone-actor terrorism, and helping vulnerable individuals. Examples of such cohesion are demonstrated by the Fixated Threat Assessment Centre (FTAC, Fixated Research Group, 2013), and Multi-Agency Public Protection Arrangements (MAPPA, Ministry of Justice, 2012). Both bodies have significant input from multiple areas such as police, mental health professionals, probation, housing, and local council. Data driven analyses, such as this investigation can provide empirical knowledge, helping organisations to make more informed decisions concerning risk. Project Regulus is a further example of this. Regulus is a project run by the U.K.'s North West Counter Terrorism Unit. Alongside academics from University College London, the project is utilising an empirical evidence base to identify risk factors of violence in a sample of lone-actor domestic extremists, with a view to inform prevention initiatives across a wide range of agencies, including mental health, social work, schooling, community services, police, and security.

Given the finding that individuals who act alone are more likely to suffer from a mental disorder than the general population, it is necessary to examine why those who act within a group suffer from much lower levels of mental disorder. The following chapter expands on the above empirical analysis, examining, a long hypothesised theory; are the low levels of mental disorder in group-actor terrorists due to selection effects at recruitment?

# Chapter 4.  Exploring 'Selection Effects'

## 4.1    Introduction

The ever-present threat of terrorism has led to a demand for immediate answers for countering such actions. Chapters one and two explained how under this pressure, the quality of psychopathological terrorism research has stagnated, with academics concluding simple dichotomous answers to simple dichotomous questions. One simplistic conclusion that has permeated terrorism research for the last two decades, is the extant lack of mental disorder within group-actor terrorists. Academic literature has attempted to explain the psychopathological differences of lone and group-actor terrorists through selection effects at recruitment (Weenink, 2015). It has been repeatedly hypothesised that group entry practices identify individuals who organisers deem unsuitable. Horgan (2005) theorises that certain individuals will never meet the rigorous recruitment criteria set, due to overt psychological characteristics. Similarly Spaaij (2010) explains that psychological conditions can prevent recruitment despite demonstrating willingness. Sageman (2006, as cited by Berrebi , 2009) proposed recruitment and rejection protocol within organisations when explaining the low level of psychopathology in his sample of Al-Qaeda terrorists: Individuals who exhibit obvious mental disorder are removed early in recruitment processes for security reasons. Jackson (2009) supports this, highlighting how individuals within a group shape available roles. Those with an overt mental disorder who approach a group may not 'fit' into available roles, and those making recruitment decisions deem them unsuitable for potential operations. The nature of these hypotheses highlight the inherent stigma associated with individuals with a mental disorder. The authors assume that recruiters negatively stereotype individuals with a mental disorder, and deliberately exclude them during recruitment. This chapter utilises autobiographical and first hand interview data to test this theory, and determine whether the low prevalence of mental disorder in groups is due to rejection at recruitment.

Chapter three highlighted that individuals with a mental disorder are at risk of radicalisation, and are capable of carrying out terrorist attacks, so why is the recorded prevalence of mental disorder within terrorist groups so low? This chapter seeks to answer this question by addressing the now widely accepted theory that terrorist groups reject those with a mental disorder. The following sections outline the sociological theories, and examine the assumptions behind the hypotheses of Horgan (2005), Jackson (2009), Sageman (2006), and Spaaij (2010).

## 4.2    Theory

Despite the attractiveness of solving the question surrounding mental disorder within group-actors using the simplicity of the earlier hypotheses, currently there is very little supporting empirical evidence concerning the interactions and decisions during recruitment processes. The following sections further explain stigma experienced by those with an identifiable mental disorder, explore current assumptions regarding terrorist recruitment, and outline current literature concerning the complex processes and interactions which occur during terrorist recruitment.

### 4.2.1    Socialisation and Stigma

The hypotheses surrounding a lack of mental disorder within terrorist groups rests on stigma. Current conclusions posit that individuals with a disorder who approach a group for recruitment are negatively stereotyped, and seen as less capable, unsuitable, and even dangerous. Stigma associated with mental disorder affects multiple domains for those concerned; interpersonal, social, economic, and recovery (Link et al., 2001). Desire for social distance is the most stigmatising factor for those with a mental disorder (Lauber, Nordt, Falcato & Rössler, 2004). The strength of social rejection (and therefore desired distance) is dependent on deviation from socially prescribed behaviour (Phillips, 1964). Factors useful in predicting social distance include severity of disorder (Gaebel, Zäske & Baumann, 2006), expectations of responsibility (Dietrich, Beck, Bujantugs, Kenzine, Matschinger & Angermeyer, 2004), concerns over interaction styles (Baumann, 2007), and assumptions of dangerousness (Angermeyer, Matschinger & Corrigan, 2004).

The desire for social distance from individuals displaying overt symptoms of mental disorder has been consistently demonstrated across psychiatric, psychological, and sociological literature for over six decades (Martin, Pescosolido & Tuch, 2000). Eker (1989) drew attention to the positive relationship between a perception of mental disorder (and thus deviation from expected 'normal' behaviour) and desired social distance. Eker concluded that respondents saw those with a mental disorder to pose an emotional (and in the case of paranoid schizophrenia, physical) burden. Lauber et al. (2004) identified that across multiple social situations (work, accommodation, friendship, interpersonal relationships), as the level of proposed social 'closeness' increased, the desire for social distance also increased. This relationship was predicted by fear of negative emotional reactions, and perceived burden (medical treatment and side effects, removal of driver's licence). Socall and Holtgraves (1992) also empirically demonstrated stigmatisation of mental disorder. Respondents were more

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likely to reject those who were mentally disordered compared to those who exhibited the same symptoms, but were physically ill. It was also noted that respondents deem those with a mental disorder to be less predictable. Martin et al. (2000) investigated attitudes in the U.S. toward multiple disorder types. Participants were most likely to desire social distance from those with drug (71.8%) and alcohol dependence (55.7%). Participants rated marginally lower levels of desire for social distance with individuals with schizophrenia (48.4%) and depression (37.4%). Alongside this, desire for social distance was reduced if the disorder was attributed to variables outside of the individual's control (e.g. genetic problems or stress, and increased if the disorder was attributed to individual-level deficiencies such as a 'bad character'). However, Dietrich et al. (2004) highlighted that mental disorder attributed to a biological cause produced a greater desire for social distance from subjects. Dietrich et al. suggested that a biological cause can be attributed to a lack of control, with the prevailing view that those with a disorder are more unpredictable and dangerous.

### 4.2.2   Terrorist Recruitment

The above investigations demonstrate the potency of stigma surrounding individuals with a mental disorder. The intuitive findings have translated into untested suppositions within terrorism research. The hypotheses of Horgan (2005), Jackson (2009), Sageman (2006), and Spaaij (2010) infer highly selective recruitment processes, which remove unsuitable candidates, and increase chances of group success. McCauley and Moskalenko (2008. p. 421) explain further; "No terrorist wants to try to recruit someone who might betray the terrorists to the authorities. In practice, this means recruiting from the network of friends, lovers, and family". This statement highlights the complex close relationships and trust building inherent in successful terrorist groups. McCauley and Moskalenko do not, however, suggest *who* would be classified as untrustworthy, only those who would be considered trustworthy. However, researchers have often made an uninformed postulation that mental disorder equates with untrustworthiness, and even dangerousness. Speaking of those with mental disorder, Hudson and Majeska (1999. p. 31) noted: "Candidates who appear to be potentially dangerous to the terrorist groups' survival are screened out. Candidates with unpredictable or uncontrolled behavior lack the personal attributes that the terrorist recruiter is looking for". This potentially false assumption, and a lack of valid empirical research underpinning it has allowed the hypotheses to permeate through research, and they are now generally accepted as truth.

The hypotheses draw from available data on those who have been a member of a terrorist organisation, with a focus on individual level factors driving potential recruits (Hegghammer, 2008; Horgan, 2008; Sageman, 2006 cited by Berrebi, 2009). There has,

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however, been little effort to understand the choices made by groups. Empirical evidence confirming what qualities groups actually look for in a recruit, for example what is desirable and what is unsuitable remains elusive and rests on four interlinked assumptions, each sat under the umbrella of the stigma associated with mental disorder. First, wanting to become a terrorist is not enough to join a terrorist group. Second, terrorist groups are selective when they choose recruits. Third, groups prioritise specific traits which correspond to what they see as an ideal recruit (e.g. ability to follow direction, discretion, trustworthiness). Fourth, individuals with a mental disorder are easily identifiable at recruitment. These assumptions are now examined in greater detail.

### 4.2.2.1  Sympathisers vs. Recruits

When studying terrorist groups, researchers automatically discount a large proportion of individuals who were willing to use violence to further a political cause but failed to take up arms. Hudson and Majeska (1999) explained differences between sympathisers and recruits. Hudson and Majeska implored that recruitment should be viewed as a process, where individuals begin as sympathisers, and following participation in legitimate support entities and groups, those who encounter violence or discrimination by the source of grievance are spurned in their motivations, and join terrorist groups through familial and friend connections. This approach suggests the crucial phase in moving from sympathiser to recruit is encountering the perceived enemy, with familial connections providing a link to a group. Klandermans and Oegema (1987) countered that although motivation predicts a willingness to participate, it is the interaction between motivation and barriers which predicts participation. To date, within terrorism studies, there is very little empirical consideration towards those who were motivated, but were not able to participate Which has led to assumptions of screening processes, and a pool of 'undesireable' sympathisers. This has led to validity concerns:

> "if screening takes place, one cannot reach conclusions about the composition of the pool of those who are willing to become terrorists by studying only those who actually do become terrorists" (Bueno de Mesquita, 2005. p. 515).

The selection bias has led academics to make un-tested assumptions regarding the prevalence of mental disorder within groups. Bueno de Mesquita (2005) utilised game theory modelling, separating 'willing' individuals into sympathisers and recruits, and theorised discrete differences in success at recruitment between these groups, with only the most competent passing through screening to become a cadre. Bueno de Mesquita concluded "lower ability and less-educated people" are more likely to volunteer, but organisations choose "the highest ability volunteers available", ensuring greater resources are available to the

organisation (p. 520). Given this, common belief would suggest that those with a mental disorder would fit within the lower ability group, validating the hypotheses. However, Bueno de Mesquita's findings are based on complex mathematical modelling, and not observations of terrorist groups. Without introducing the unpredictability of human nature, social process, and environment, the model is, to date, untested and not validated.

### 4.2.2.2 Selection

The assumption of a terrorist group differentiating between sympathisers and recruits is linked to the assumption that terrorist groups are selective in who they choose to recruit. Organisational success can aid recruitment, and reinforce cohesion within a group, and success is achieved through recruiting the most promising volunteers (Cragin & Daly, 2004). Hudson and Majeska (1999) highlight that groups look for specific skills that are required for group enhancement. Irish Republican organisations provide examples of recruiters choosing 'clean' recruits – "fresh skins" - who lack a criminal record and are less likely to be detected prior to an attack (Horgan 2013: p. 92). Jasparro (2010) explains how weakly connected self-starter cells demonstrate a high level of criminality and emotional instability across members. Such cells were also more likely to be known to law enforcement and intelligence agencies. Thus more sophisticated organisations are thought not to recruit 'unclean' sympathisers, thereby avoiding detection.

However, terrorist groups also face the complication that to be successful in their illegal conduct they may not be able to have an organisation full of 'clean' recruits. They may also need to seek individuals with the skills to effectively carry out criminal behaviours (e.g. bomb makers, gun runners, assassins). Individuals who with their skill set, may tend toward criminality, and therefore may not be "reliable, trustworthy, or cooperative" (Gottfredson & Hirschi, 1990. p. 213). To overcome this, Hegghammer (2012) proposes that terrorist groups[46] rely on intense social bonds and trust to avoid infiltration, apprehension, and destruction. In order to select both effective and trustworthy recruits, it is proposed that a group will use screening processes to determine similarities of a recruit's values, abilities, and personalities to that of those currently in the group, and an individual's ability to conform to group attitudes and belief system. This screening process helps to cement relationships and enhances group success.

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[46] Densley (2012) concluded that this trust signalling and screening process is also common in gang recruitment.

The evidence suggests that terrorist groups may employ screening processes at recruitment. The earlier hypotheses suggest that those with a mental disorder would not pass through screening, as their characteristics render them unsuitable. Given this, it would therefore be expected that groups prioritise specific characteristics during recruitment.

### 4.2.2.3 Prioritisation of Traits

Kavanagh (2011) supported the selection effects identified by Bueno de Mesquita (2005), suggesting that groups expend energy selecting highly educated, skilled individuals, as these would be viewed as having greater potential to become a highly proficient terrorist. The earlier hypotheses use a different perspective to arrive at the same conclusion. However, they use negative stereotypes of individuals with a mental disorder to suggest that groups view individuals with psychopathology as less capable, weaker, and unpredictable, therefore they are deemed unsuitable, and a higher calibre of individual is sought. Crenshaw (1981) highlighted the risk that inept individuals bring to a terrorist group, and explained that recruiters would actively discourage individuals who did not hold the interest of the group at the fore.

Taarnby (2005) examined the longitudinal recruitment processes of Al Qaeda. Within Al Qaeda, there was a stringent set of written guidelines concerning ideal recruits. These guidelines include; strong religious beliefs, full commitment to the ideology, mature and responsible, able to listen to and accept the authority of those senior, trustworthy, free of illness, intelligent, a calm nature, ability to observe and analyse, and cautious in actions (Taarnby, 2005; The Al Qaeda Manual, n.d.). This would appear to support the hypotheses that those with a mental disorder (in the case of Al Qaeda, not free of illness) would be screened out. However, Al Qaeda would also recruit less 'clean' prospects, including criminals and less observant Muslims, as their vulnerabilities could be easily manipulated (Leiken, 2004; Taarnby, 2005).

That Al Qaeda made exceptions in the recruitment process shows that groups will also seek out those who present with 'less' desirable traits. Fields (1979) performed ethnographic research in Northern Ireland. The results identified that individuals living in, and witnessing the violence during the troubles, were characterised by numerous psychological and social problems, which left them ripe for exploitation to recruitment by terrorist groups. This is supported by Kruglanski, Chen, Dechesne, Fishman, and Orehek (2009), who argued that terrorist organisations actively seek out individuals who have suffered numerous psychological, social, and physical traumas, as due to their vulnerabilities, they are easy to recruit without expending effort and resources. Gerwehr and Daly (2006) expand further,

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listing a series of traits that would make an individual more susceptible to recruitment including high level of current distress or dissatisfaction, disillusionment, lack of intrinsic belief or value system, dysfunctional family system, and dependent personality tendencies.

The above evidence suggests that groups may seek out vulnerabilities in individuals, but there is no explicit mention of particular mental disorders (either as attractive or unattractive for recruiters). This may be due to desired social distance from someone with mental disorder (Eker, 1989; Martin et al., 2000; Socall & Holtgraves, 1992), or the lack of labelling may be a function of an inability to correctly identify a mental disorder if it is not disclosed by a potential recruit.

### 4.2.2.4  Identifiability of Mental Disorder

The early hypotheses rest on the assumption that individuals with a mental disorder are rejected at recruitment because the mental disorder is easy to identify. This viewpoint fails to consider the highly complex nature of what it is to have a 'mental disorder'; the huge range of overt and covert symptoms – and how these interact with social and environmental factors, the complexity of behaviour patterns, the different levels of function, the importance of situational cues on behaviours, and the desire for an unwell individual to remove the stigma attached to their illness. Instead the dichotomous hypotheses follow the deeply entrenched stereotype of an easily identifiable, overtly unwell individual. Many symptoms of mental disorder are not disruptive or identifiable, and do not result in as devastating consequences found in pervasive psychoses or chronic mood disorders (Hinshaw & Stier, 2008). In fact, current psychiatric taxonomy includes a wide variety of symptoms which would previously have been thought of as 'normal' behaviour (APA, 2013; WHO, 2010). The assumption also fails to consider individuals who have undergone treatment for highly conspicuous symptoms, and are not in the active stage of illness (Quinn, Kahng & Crocker, 2004).

Intrinsically linked to overt and covert symptoms is that the majority of symptoms across the spectrum of mental disorder are concealable (Quinn et al., 2004). The public may not know an individual has a mental disorder, unless they choose to disclose their status (Corrigan & Watson, 2002), and that an individual may be highly motivated to deliberately to conceal their status (Smart & Wegner, 1999). This engagement in concealing a devalued aspect of a person's identity is referred to as 'passing' (Goffman, 1963), and has been seen in those concealing their criminal history and medical conditions (Quinn et al., 2004; Quinn, 2006). Passing can be extremely advantageous for an individual in social interactions, minimising stigmatising judgements, and allowing an individual to be accepted as 'normal', allowing them to conceal their status, and reducing the stigma associated with their disorder. To date, these

complex personal, interpersonal, and situational complexities remain untested in terrorism research.

The evidence surrounding the four assumptions highlights the necessity for nuanced and comprehensive examination of autobiographical evidence from recruiters within terrorist organisations. The subsequent sections utilise both quantitative and qualitative analytical approaches to challenge the assumptions and examine the hypothesis that an individual with a mental disorder will be rejected from a terrorist group.

## 4.3    Data and Method

### 4.3.1   Quantitative Data

Two open source quantitative datasets were utilised for the descriptive and inferential analyses; the group-actor dataset (n=544), and the lone-actor dataset. Lone-actors were split across lone- (112 actors) and solo-actors (17 actors).[47] These analyses provide prevalence data across both actor and disorder type. Quantitative data from the autobiographical dataset was also utilised.[48] This data was derived from the initial content analysis, and for this chapter, data concerning recruitment and psychological distress are relevant.

### 4.3.2   Qualitative Data

Qualitative data was also sought from the autobiographical dataset, alongside semi-structured interviews with individuals who were formally involved in recruitment processes within a terrorist organisation.[49] Within the autobiographical dataset, transcriptions gathered during the initial content analysis are utilised. Pertinent to this chapter, texts concerning individuals who were recruited, or acted as recruiters, or who gave extensive information of recruitment processes were of interest. Interview data within this analysis was transcribed from the audio recordings, specifically questions regarding recruitment processes, and reasoning behind decision-making. These transcripts are utilised to build an evidence base, which tests the assumptions of the hypothesis that prevalence of mental disorder is low in groups due to selection effects at recruitment.

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[47] For more information on these datasets please see pages 26 and 27.
[48] This data is described in more detail on page 28.
[49] This data is descrbed in more detail on page 26

## 4.4    Results

### 4.4.1    Prevalence

Figure 4.1 denotes the prevalence of mental disorder across the quantitative datasets. The prevalence of mental disorder across lone-actors was 42.9%, 23.5% across solo-actors, and 2.4% across group-actors. Kolmogorov-Smirnov calculated the percentage of lone-actors ($D(112)= 0.377$, $p<0.001$), solo-actors ($D(17)= 0.469$, $p<0.001$), and group-actors with a mental disorder ($D(544)= 0.538$, $p<0.001$) to be significantly non-normal. Levene's test demonstrated that concerning mental disorder, variances between lone and group-actors were significantly different, $F(2, 670)= 497.068$, $p<0.001$. Following this, bivariate analyses highlight a significant negative association between mental disorder and the degree to which the individual co-offends; Fisher's Exact Test, $p<0.001$. As the prevalence of mental disorder increases, communication and affiliation with like-minded conspirators decreases. Based on the odds ratios, lone-actors are more likely to be diagnosed with a mental disorder than both solo- (2.44 times more likely) and group-actors (30.63 times more likely). Solo-actors are 12.57 times more likely to be diagnosed with a mental disorder than group-actors. This data shows support for earlier group-based theories of terrorism. Group-actors also demonstrate substantially lower levels of mental disorder than the general population.[50]

Mental Disorder Prevalence across Actors
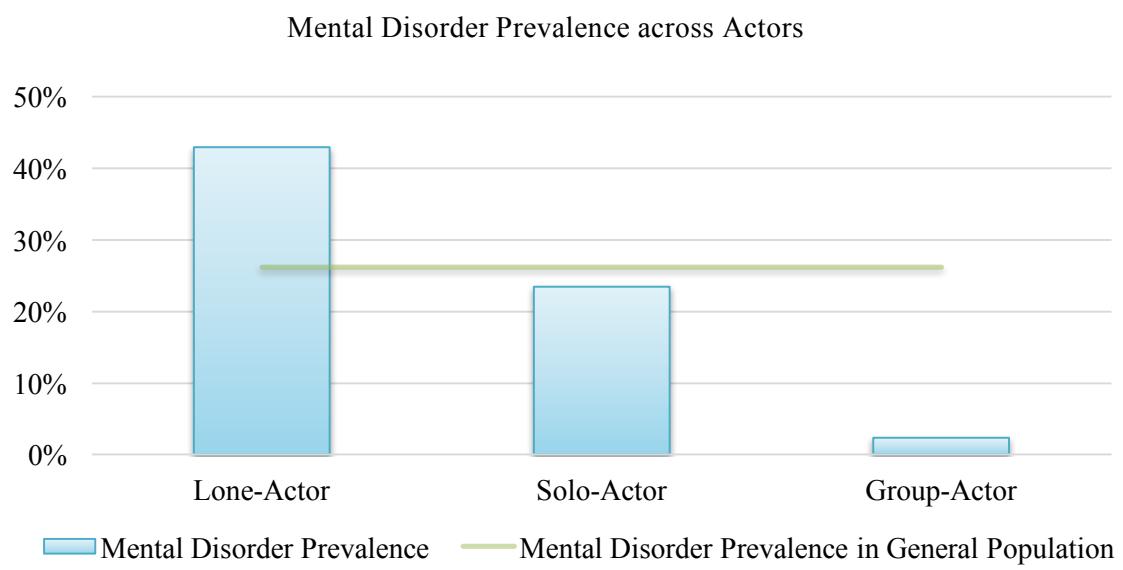


**Figure 4.1 Differences in Mental Disorder Prevalence**

These results appear to indicate a selection effect at recruitment. Both group and solo-actors have a lower mental disorder prevalence than a general population. The autobiographical dataset was therefore critically analysed, determining whether selection

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[50] 25.0%, Alonso et al. (2004); 27.4%, Kessler et al. (2007).

effects occur at recruitment, and if those with a mental disorder are screened out. The assumption that an individual would be rejected by a group based on a mental disorder was supported by the below statement from an Al-Qaeda recruit.

"One day, a man arrived at camp by himself, without a guide. We were all in the cantina when he stopped in front of the camp; we looked at each other but said nothing. Ibn Sheikh rose from his seat and walked outside, and we watched him talk to the new man for a few minutes… I could tell from the way he moved his eyes there was something not quite right about him… Ibn Sheikh warned those of us with our own Kalashnikovs to be very careful and keep our guns nearby. We went off for training after lunch, and by the time we returned the African was gone. We learned Abu Bakr had pinned him to the ground and put him in handcuffs, and they had radioed for a four-by-four to take him back to Pakistan. That night Ibn Sheikh explained that the man had come without papers. He had been in the camp once before, but he had returned to Pakistan. Now he wanted to come back… Then he went onto say there was something wrong with the African, something not right in his head. It was very important to keep such people off the camp because they could be dangerous. Once he had seen a brother go mad very suddenly from battle fatigue. One day he picked up his Kalashnikov, walked into the mosque and started shooting. He killed four brothers and seriously injured ten more." (Nasiri, 2006: p. 173).

This statement, however, was an isolated case of an in-depth description of a rejection, and the author goes onto describe another case where the group have a different tolerance towards another individual that was perceived to have a mental disorder individual:

"Abdul Kerim was different from everyone else at Khaldan, that was clear. At first I wondered if he was a heroin addict. I had seen heroin addicts on the streets of Morocco, so I knew their faces and movements and the deep paranoia in their eyes. Of course there were no drugs in the camp, and I wondered if he was allowed to drink Nescafé to help take the edge off the withdrawal. Whether or not I was right about this, it was certainly true that Abdul Kerim was an exception to all sorts of rules. The wild variations in the tone of his speech, the jittery motions, the rapid mood swings, the stream of information he poured forth without any solicitation – another brother would have been kicked out of camp for any one of these. Though it would be some time before I understood why, I knew even at this early point that Abdul Kerim was going to be particularly interesting. They were letting him stay for a reason." (Nasiri, 2006. p. 155).

This would appear to suggest that the individual in the first case was rejected due to reasons other than overt mental disorder, as the second individual, despite suffering from psychological issues, was welcomed, and seen as an asset to the organisation. No other autobiographical evidence in the dataset speaks of rejection due to a mental disorder. This inherent lack of disclosure is expected, as unless the author recollected a prominent memory (in the above case), or was specifically asked during their writing, there would be no reason to mention it. Taking these results as a starting point, the following sections critically analyse qualitative data concerning recruitment practices of terrorist groups.

### 4.4.2   Recruitment

The selection effect hypotheses rest on the belief that recruitment processes are an essential stage in becoming a terrorist. This idea rests on four key principles; all individuals are formally recruited to a terrorist group, all recruits become 'full' members of a group, recruitment processes take sufficient time to allow for screening, and organisations employ the same recruitment processes across areas and cells. The following section examines these principles to determine if recruitment processes are an integral factor in the process of becoming a terrorist, and therefore if there is supporting evidence for the selection effect hypotheses.

The comparatively low levels of mental disorder and autobiographical extracts provide tentative support for the hypothesis that groups would not recruit individuals with a mental disorder. This, however, rests on the premise that all individuals who join a terrorist group as subject to a rigorous recruitment process which would weed out unsuitable individuals. The results from the autobiographical dataset indicate that this assumption is not correct in over half of cases. With only 46.7% of individuals mentioning a recruitment process before they were active within a terrorist group. This suggests that recruitment practices and inductions are not as stringent as commonly thought. Within the autobiographical dataset, 23.1% of individuals suffered from psychological distress prior to entry into terrorist organisations. The early hypotheses would suggest that these figures indicate that those with mental disorder who do enter into an organisation, do so through processes external to direct recruitment protocol. However, bivariate statistical analysis found no significant association with recruitment practice and avoiding individuals who suffered from psychological distress ($X^2(1)= 0.348$, p=0.555. These results suggest that individuals with psychological distress are not actively screened out at recruitment.

Alongside the low levels of active recruitment processes, descriptions of recruitment also differed greatly. Ranging from sophisticated oathing ceremonies (Barnett & Njama, 1966), less sophisticated initiation processes (Interview 3, 2016), coerced initiation (Adair, 2009), trickery by others (Muriithi, 1971), in depth interviews (Wilkerson, 2007), and shorter political dialogs (Grathwohl, 1976). Examples of the wide range of recruitment processes are described below.

"My entry into the organization was extremely easy. It is funny to consider how much fantasizing and mystification is spun about the matter now- all the inventions and exaggerations that are used to portray an act that is, in fact, as simple as can be. Almost disappointingly ordinary. The popular imagination is probably stimulated once again by ignorance and naïveté… Andrea asked me if I was ready to start doing things in a more serious fashion. And he said- and I quote exact words, "Do you want to join our organization?" And he added quickly "Don't answer right away; think about it for three days, then you can tell me." (Giorgio, 2003, p. 89-91).

"If I was going to volunteer, it would be to join the UVF, as at the time they were the only ones taking the fight to the Nationalists. But in the end I didn't have a choice. One night I was summoned off the streets to the UDA headquarters and told that I had to sign up… The first time they asked us to join I managed to dodge it. But within days I was hauled back in and it was made clear that unless I did what I was told I would be taking a bullet." (Adair, 2009, p. 28).

"That evening, we would formally meet with the group to be evaluated, one at a time… That evening, I was queried about the main ideas in the Weatherman paper and asked to explain my politics, as we phrased it… When I finished my short summary, Drew began to challenge my understanding of the Weatherman analysis. My thinking was incomplete and sloppy, he said… When I tried to explain my thinking, however, I was told that in a 'criticism session' I had to respond to what others said, and that by arguing with them, I was being defensive and evasive, fearful of looking at the truth, perhaps protecting myself in some way… I was taken aback by this close, somewhat hostile cross-examination… increasingly confrontational… It appeared that my ability to join the collective hinged on my agreement with all the criticisms of my past political thinking and work, and not just a willingness to consider them. I was now more curious than ever about this group, in which everyone took themselves and each other so seriously. Suddenly it seemed urgent that I get myself accepted, if I really wanted to make a contribution to the revolution." (Wilkerson, 2007, p. 270).

"In the morning I went back. They [MPLA] began questioning me very seriously about why I wanted to join. I told them I wanted to join with my friends who were struggling against the Portuguese oppression, that I had faced many sufferings under the Portuguese rule. I told them of the beatings I had received when I was young and of the money which was taken from me by the *chefe do posto* when I returned from work at the mines. All these things did not please me. So now, when I was hearing about the fight against the Portuguese, I wanted to join and beat them. They didn't refuse me. I was accepted into the movement. (Candonga, 1972, p. 172).

"For security reasons we chose the 'vertical' organizational model, with each of us linked to a single militant who in turn recruited another and so on. The resulting 'chain' seemed to us less vulnerable than other cells grouping three or more members all of whom knew each other." (Iyad, 1978. p. 27).

The assumption that individuals with a mental disorder are not recruited to a terrorist organisation also rests on the fact that groups are rigid in their recruitment, with each individual undergoing a formal recruitment process, and initiated as a full member. However, the autobiographical evidence that 61.6% of individuals were not formally recruited, and the below extract gives example of the fluidity of organisations. On occasion, individuals were accepted into specific organisational roles whilst not being a member who had been recruited through the traditional methods of that organisation.

"Micky took the man by the arm a few yards away from me so I couldn't hear the conversation. A few minutes later they returned to me and Mickey said, 'This is Marty; he's your new security guard.' Until that moment I had no idea… I realised that I was now working on behalf of the IRA, employed as a member of the IRA's protection racket… I told Dean exactly what happened and he seemed surprised that a member of the IRA had taken me on as a security officer when I was not, in fact, a member of the organisation." (McGartland, 1997, p. 81-83).

The timeframes of recruitment protocol also differed across organisations. Some organisations insisted on strict initiation periods- allowing for screening processes, whilst other initiations were more immediate- with no timeframe for screening and scrutiny.

"You joined by someone sticking a gun in your hand in some cases and you fired a few shots down the road at the army… it was chaos." (Interview 3, 2016).

"As with any group that grows rapidly in such a short period of time, there were bugs to be worked out… even as we struggled to remain as tight as our enemies. One night I found out that Danny's brother Paul, the Clown, and Ronnie had all been jumped into AF without my knowledge by other members of the Firm. I knew these guys personally, and they were living in my area. I was furious. There were reasons I hadn't yet jumped them in…. 'Those who hadn't been jumped in yet were still prospects because they were not worthy'". (Leyden, 2008. p. 35).

"During a probationary period, we gave them a political formation and had them read various books and pamphlets. The recruitment and training of cadres' phase is inward-looking and calls for extreme prudence." (Iyad, 1978. p. 27).

"One valuable ability the Marines taught me was how to be a much better recruiter… the military technique of 'tear down and rebuild'. Essentially it's a very slow and steady way to change a person's outlook on life, self-perceptions, and loyalties. It's been used for thousands of years in military settings and has been honed to an incredibly effective model of control. The first step is demoralizing a recruit's way of thinking, shattering it into tiny pieces, then rebuilding it with new thoughts and belief systems." (Leyden, 2008. p. 68).

Each autobiographical case described a different process of entry into an organisation. This was even true within organisations. The disparities within organisations are described by a former IRA member:

"When you had strong leadership locally… it probably meant that people that were obviously not suitable didn't get in. Where you had weak leadership locally, they may well have got in… And you'll see more of that because they got arrested, they got caught in their droves, because the area had weak leadership… they became more open… where in a strong area they would have been told to piss off." (Interview 3, 2016).

This evidence indicates that early hypotheses regarding recruitment and selection effects are severely limited in their scope, and require a more disaggregated analytical approach. The following sections utilise autobiographical evidence from recruiters (20.9% of the dataset, 3 semi-structured interviews) to critically analyse the four assumptions that early recruitment

hypotheses rest on; differences between sympathisers and recruits, groups are selective, groups prioritise traits, and mental disorders are easily identifiable.

### *4.4.2.1 Sympathisers vs. Recruits*

For the selection effect hypotheses to be validated, the autobiographical evidence would need to highlight that terrorist groups are approached by a wide variety of individuals, and recruiters are afforded the opportunity to discern between sympathisers, who may not be suitable for active service, and recruits, who would be seen as desirable. Partial support for this assumption was found in autobiographical evidence, and in some cases, recruiters explained the differences between individuals who approached groups to become a member.

"to what extent are they willing to do something about it… If the guy says 'yeah I've got this job I've been at 20 years', chances after 20 years, you're not going to leave, 'I hate what's going on with my neighbourhood, when I was there 20 years ago it was all white, now…' well you're still not going to leave your job, d'ya know? Most people don't know what it's like to not have that comfort zone, and chance are you're still married and got kids. They're not going to want to leave, unless they see something very pending that would force them to leave… So you look for that kind of stuff… and if it's time to move on." (Interview 2, 2016).

"For every one hundred people you talked to, you might get one or two who would actually make the commitment… you knew your chances weren't that good. It's a fine line between people who talk about violence and those who cross over into violence" (Interview 2, 2016).

"I would walk with a prospective new member through back streets, or sit with him on a bench in a public park, and do my best to convince him to throw his lot with us… Those who resisted me, who hurled bitter accusations at me, were the ones I was most certain of winning over, for their very opposition was in reality a desperate plea: Help me against myself. Those whose questions were coolly and carefully phrased on the other hand, as though calculated in advance to be unanswerable, were certain to decide against us in the end." (Cohen, 1966. p. 116).

This evidence, however, highlights a different dynamic than the hypotheses have suggested: The potential recruit was the individual who was in charge of making a commitment. These extracts infer that recruiters would approach individuals, with the

knowledge that they may have a low success rate. This is not to say, however, that sympathisers would have no role in an organisation:

> "The republican sympathisers… They would remain 'sleepers', waiting to be activated whenever their IRA masters needed their help in providing information. Some sympathisers were encouraged to become computer experts so that they could find positions in organisations where access to computer files would provide the IRA with most of the information required to target members of the RUC, the security forces, prison staff and anyone the IRA decided they wanted to nail. It seems a great many men and women are still employed in the organisations, and are capable of handing over information which would put their targets at risk from attack." (McGartland, 1997. p. 177).

And in certain cases, where someone had been rejected, they may have been accepted at a later date, if the group deemed their characteristics suitable.

> "You just kind of knew, say 'if so and so has asked to join'… 'are you serious? Not a fucking chance'… 25 year old wants to join… but he hasn't worked and he is in the pub pissed most nights, then no… somebody might say to him well 'show us what you're like for the next year, catch yourself on and come back in a year's time'… might be a young guy that's gone off the tracks a little bit… somebody might say 'look, not now' or 'stop hanging around with those guys you're hanging around with'… 'show us you're serious'… mostly local… it worked rather well in a way, because how would you know?... The local knowledge would be invaluable… and you would have had… a tradition…" (Interview 3, 2016).

Given the evidence that recruiters recognised differences between those sympathetic to the cause, and those willing to fight for the cause, it would be expected that they would be selective in those individuals who they approached to recruit.

### 4.4.2.2  Selection

The autobiographical data implied there were differences in selection across groups. Some groups, such as Al Qaeda, were notoriously selective in their recruitment:

> "'You know,' he said, 'you're not the first one to try to get into the camps.' 'What happened to the others?' I asked. 'Most don't get in. They come back with nothing. Some don't come back at all.'" (Nasiri, 2006. p. 99).

Other, right wing organisations were less selective.

> "So we'd look for single men, ages 18-25 preferably. Anyone over age 45 would generally not be recruitable, because they'd probably be older than Ellison [leader] and not obedient." (Interview 2, 2016).

> "We had no problems recruiting. Every day new kids showed up whom we either took into the National Alternative or sent on to one of the many other parties under Michael Kühnen's umbrella: German Alternative (DA), the National List (NL), the National Offensive (NO), or if they seemed especially immature or the type who's like Aryan campfire rituals, into the oldest neo-Nazi organization, the Viking Youth" … "Every group was represented. Most of our members has decent jobs. They were bakers, shoemakers, roofers, or whatever; some of the better educated were economists, engineers, physicians, lawyers, academics. We accepted members from age eighteen, the legal age to join a political party." (Hasselbach, 1996. p. 104-106)

The above quote from Ingo Hasselbach highlights that the selection process was highly dependent on the leader of the organisation. When his leader passed away, Hasselbach took charge and took a different approach, including indoctrinating individuals as young as 14:

> "Of course, I didn't want just anyone in the group, but I also didn't like to discourage people from becoming involved in the scene…. The basic requirement for indoctrination was youth. We accepted older members, of course, but far fewer and treated them differently… We looked for people who were inclined not only to share our views but to join something exclusive and prohibited, something from which there was no easy turning back… Occasionally, if someone was really slow, we couldn't use him no matter how loyal he was… But the way we decided to work now – secretly and ultimately as terrorists – second rate people could only be a hindrance and a possible security leak" … [of a rejected sympathiser] "He had the seal and brutality but nothing else. Kühnen [previous leader] had always said that such people were our 'useful idiots.' (Hasselbach, 1996. p. 238-240).

Hasselbach described that the previous leader had accepted less capable individuals for tasks such as 'street cleaning', and other violent acts by explaining, "We needed Stormtroopers." (p. 239). This thought process was seen across other organisations and ideologies. Husain (2007) describes recruitment through propaganda and mass mobilisation of students and worshippers. Methods included ideological challenges to counter religious narratives and taking advantage

of the naivety of second and third generation Muslims who had yet to cement their religious identity. In all texts describing the Mau Mau uprising, recruiters utilised mass mobilisation techniques, recruiting entire villages each night, sometimes forcing individuals against their will to take the oath (Itote, 1967; Kaggia, 1975; Kariuki, 1975; Mathu, 1974; Muchai, 1973; Muriithi, 1971; Njama, 1966; Wamweya, 1971). Following the initial oathing, and the declaration of the state of emergency in Africa in 1952, a second oath was administered, with those who took it expected to join the violent uprising. Administrators were not discriminate in who they accepted, only asking that individuals were willing to fight. Irish Unionist movements were also recorded for this indiscriminate selection:

> "It wasn't long before I started getting noticed by the UDA leadership. The Shankhill is a pretty small place and it was no secret that there was a hard core of us who were regularly fighting with the Catholics. They saw me as someone who was bitter and game to get his hands dirty. That was just what they wanted." (Adair, 2009. p. 27).

This process of a less discriminate selection process within Loyalist groups was explained during an interview with a former IRA member. The interviewee explained that due to the underlying ideology of the Loyalist movement – to stay within the United Kingdom – the higher calibre individuals who held this ideology were recruited to the police, army, and prison services, leaving a lower baseline for recruitment. Whereas, the IRA had no legal outlet to act, so the IRA could afford to be more selective in recruitment, with local knowledge playing a large part in selection decisions:

> "There were people who couldn't join the police to fight the loyalists… They couldn't join the prison service to fight the loyalists, so they went to the IRA. You could say they got a better class of people." (Interview 3, 2016).

> "[The decision for suitability was] nearly always arrived at by local people who would have known them… in that rural area, people are going to know his grandparents, and his parents, and his cousins, they are going to have known him at school, they are going to have watched him playing football or rugby or whatever… if you happened to be a lad that played football by saying 'I'm terribly sorry I didn't mean to hurt you', he's probably not cut out for it. So mostly they didn't make any errors on that, there was nothing sophisticated about it…" (Interview 3, 2016).

The above quotes highlight that selection processes differ greatly across groups, and are highly dependent on ideology, group direction, leadership, and availability of

sympathisers. Given there is evidence of selective recruitment in certain cases, it would be prudent to expect that groups prioritise traits that they see as desirable for a group member.

### 4.4.2.3  Prioritisation of Traits

The reasoning behind more selective recruitment processes was explained in ideological accounts from Fatah (Iyad, 1978), Frente Sandinista Liberacion National (FSLN) (Cabezas, 1985), and Hammerskin Nation (Leyden, 2008). The accounts of these recruiters infer that they sought well educated, 'clean' individuals who were interested in the politics driving the movement.

"We chose candidates for our organization according to moral and political criteria we considered indispensable: They had to be politically independent with no ties to any party, and they had to have blameless conduct in their private lives. As a proof of their respectability and seriousness, we asked that they renounce alcohol. (Iyad, 1978. p. 27).

"That same year… in an effort to recruit more members among the first year medical students… So on it went, from struggle to struggle, from demand to demand; we went on winning over the best of the students coming into the university" (Cabezas, 1985. p. 28).

[Following an influx of drugs into the movement] "I began recruiting *clean* kids into Western Hammerskins [WHS] and then into Hammerskin Nation. WHS was the regional chapter, and almost anyone could join. However, only select people could become part of the elite Hammerskin Nation. For me, it was a way to play a game with them – to make sure they were committed and loyal. To make sure they stayed clean." (Leyden, 2008. p. 91)

One account, from a 14-year-old female recruit in the Popular Movement for the Liberation of Angola (MPLA), highlights that recruiters also looked for strong emotional characteristics.

"Mundo called me into his hut and asked if I thought I was able to work, that is, to function as a guerrilla, remaining in the forest and living as they did. I replied that I could. He told me: 'Here in the forest there are many hardships and much suffering. There is little clothing, very little soap, and we don't eat well. There is also much danger' … I told him that I thought I could stand up to all the hardships and perform my duties as a guerrilla. 'Don't you think you might run away," he said "when you

come up against severe hardships and suffering?' 'No,' I replied. 'I shall work and fight until Angola is free. Whether I live or die… I know I must do my job well.' Comrade Mundo then told me I could go". (Barnett, Harvey & Chipema, 1972. p. 144-145)

This ideologically and emotionally attached individual would also been seen as more trustworthy. Groups depended on tight security to be successful:

"If they weren't trustworthy or if they didn't have a good reputation for keeping secrets… we weren't interested in bringing in drama, we didn't want people that would go and tell other people what was happening at meetings, that would have been a red flag…" (Interview 1, 2016).

This wide range of recruiters and ideologies who did prioritise more desirable traits provides evidence for the assumption that groups do prioritise traits in their selection of members. However, there was also evidence of other recruiters, specifically aiming for a younger cohort, those who were more vulnerable, malleable, and were developing their own persona and opinions.

"I found that hatred was an easy thing to sell to confused teenage kids. Like me, so many of them were filled with anger and hatred already. Recruiting them to become thugs was a breeze." (Leyden, 2008. p. 51).

"The targeting and recruitment of contacts was easy… We knew people we had to avoid- those who were hardcore, wearing the subcontinental long shirt, skullcap, and long beard, we avoided. It was their junior followers in jeans and t-shirts, new kids on the block that we had in mind." (Husain, 2007. p. 122).

"Group A kids were rambunctious. They could kick ass and were not afraid to fight. Group B just wanted to belong. They liked the drinking, the partying, and the hanging out but weren't too keen on fighting" (Leyden, 2008. p. 96).

"… if they pushed back ideologically, we wouldn't waste our time… we would look for kids… or young people who had issues, because it was easier to promise them paradise… a lot about looking for low hanging fruit, because it was about numbers, it wasn't necessarily about quality, we were trying to build an army. So it was about finding anybody who would adhere to your ideology easily. However, we did also

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look for quality people, we looked for smart people, who had grievances, who were anti-authority, who… were smart but had low self-esteem, and were looking for somebody to fit into." (Interview 1, 2016).

"It was really about finding a young person who was going through a rough period, either… trauma at home… there was crime starting to happen in the neighbourhood. So I would find those people… It was trying to find the people on the fringes, people that… felt alienated and marginalised, and had a grievance of some sort." (Interview 1, 2016).

This evidence provides a counter for the hypotheses that groups do not accept individuals with a mental disorder. Vulnerable adolescents encounter a range of emotional, psychological, and social problems, and these accounts provide evidence of certain groups taking advantage of these characteristics. This evidence suggests an alternate hypothesis; that groups may prioritise capability as opposed to personality, and as chapter three highlighted; mental disorder should not be equated with incapability. This evidence, and the below quote which highlights lesser considered reasoning behind individual motivation to join a terrorist group, provides further evidence for the need to disaggregate what is thought of as 'the terrorist'.

"As it went on… you got people coming in, who I have no doubt were coming in for protection… I am absolutely convinced that the quality of the recruits actually went down… I'm not saying they didn't believe in it… but a key psychological factor was protection… you're letting a different calibre in, and they might be able to absorb the political ideas and stuff like that… because that's probably where they're more inclined to go" (Interview 3, 2016).

### 4.4.2.4 Identifiability of Mental Disorder

As there was very little autobiographical evidence of a selection bias against those with a mental disorder, interviewees were specifically asked if they knew of a practice to reject someone with a mental disorder. This question elicited the same answer from each respondent: 'How would you know someone has a mental disorder?' This answer was never considered in earlier literature that presumed rejection based on mental disorder to be common. The below extract highlights how recruitment depended on characteristics, not a label of mental disorder:

"If they were more mentally stable… like if they were 51% mentally stable and 49% wacko… we would tend to take them. If they were mentally retarded or had disabilities

or something like that, we didn't really want them, because… they didn't fit this vision of this white warrior ethic that drove us. I can't remember too many cases, maybe that's just because I didn't run across enough people who may have displayed those types of things… (Interview 1, 2016).

Other autobiographical and interview evidence suggested that specific traits that are often found in certain disorders are desirable for recruiters.

"I think if they became a liability or if they were too much to handle, then we would probably [reject them], but if they were manageable, I could see us accepting them… Unless they're like completely like autistic, and you can see it or something… we would have probably just thought 'that dude's crazy! Let's get him', crazy in a sense that he would go out and do whatever we wanted" (Interview 1, 2016).

"It was a 'by all means' necessary approach… We instilled that perspective on impressionable young kids who were emotionally scarred at tender ages by shitty home lives, racial violence, alcoholism, and whatever other dysfunction *du jour* that moved them to seek us out… In order to have any kind of longevity in such an environment, you have to have those qualities [drinking, violence]. The people who were afraid of violence- the people who we felt were cowards- would ultimately be weeded out." (Michaels, 2010. p. 81- 83).

"I don't think these groups actively recruit mentally ill people, I think that they look for people capable of putting reason and logic aside, like fooling them into believing a different reason or logic to go do things, so I think that they look for vulnerable people… some of which may have mental illness that's not that bad… I mean, we really tried to find broken people essentially… I mean dealing with identity crises… abuse, drug addiction, alcoholism, family poverty… those types of things… kids who were on the street… you could tell there was not a lot of family oversight, cos we were looking to draw them into our family." (Interview 1, 2016).

Other groups however found specific psychological problems, such as a continuing substance abuse or addiction, as a problem for the effectiveness of the group.

"[On rejecting potentials due to overt drug use] Once banned, detested, and excluded, the drug scene had infiltrated Skinheads and this type of altercation started happening all the time. It made me physically ill. This wasn't what being a Skinhead stood for. It

felt like we should beat up drug pushers and put them behind bars or in the ground, not become them." (Leyden, 2008. p. 37).

One former Right Wing recruiter explained that the personal connections and word of the group leader took precedence over perceived disabilities:

"Mental and physical handicaps were on a one-on-one basis. We had one physically-handicapped man (one leg had been cut off below the knee when a teenager) and was also a little older than Jim [the leader, who was insistent on his dominance, and disliked any recruits who may challenge this], but was there for Jesus, so acceptable... We had two mentally challenged men, one was a cousin of one of our members and he had nowhere to go and the other was a 3rd generation neo-Nazi whom his relatives sent to us." (Interview 2, 2016).

There was also evidence that an attraction to violence, and violent capability outweighed an overt mental disorder at recruitment.

"There are people who probably feel more comfortable in that environment than others… and then piggybacking on that you inevitably get inadequates, who've now become bullies because they're powerful in their own area." (Interview 3, 2016).

"We accepted him [Freddy] into our house but even for neo-Nazis he was a bit extreme. He was a pure sadist. While the rest of us did things with an elaborate sense of political hierarchy and often with a sort of cruel irony, Freddy was a pure animal. He was like a skinhead in that he enjoyed nothing so much as beating people up. During a street fight, the unlucky ones who'd run into Freddy Meisel would scream in pain and horror at some unimaginably cruel thing he'd done to them. When I looked at Freddy, I still felt affection – he was still perfectly friendly when he was around his Kamerads – but I was also disturbed, for I think in him I could see the rawest version of what we were all becoming." (Hasselbach, 1996. p. 113).

All the above extracts disaggregate mental disorder, citing different psychological characteristics, and explain why some are more desirable or more prevalent. This alongside evidence which highlighted the different types of actors, highlights that it is not sufficient for research to demarcate actors using mental disorder and actor type as a dichotomous variable. Without distinguishing between actor and disorder types, conclusions regarding the behaviour of these offenders remain futile. Figure 4.2 highlights differences between disorders, across

lone-, solo-, and group-actors, with a comparative measure for accepted prevalence within a general population.

Across the range of disorders tested, there are only four disorders which hold a substantially higher prevalence in the lone-actor cohort than the general population. The most notable being schizophrenia. A similarly high prevalence of this disorder was also found in solo-actor terrorists. Solo-actors also demonstrated substantially higher levels of ASD compared to the general population (and lone-actors). These results suggest that hypotheses regarding rejection due to overt mental disorder, and a perceived lack of capability may not be sufficient. Symptoms of both schizophrenia and ASD are very overt, and solo-actors are members of a terrorist organisation, who are tasked with carrying out an attack which they organise themselves.
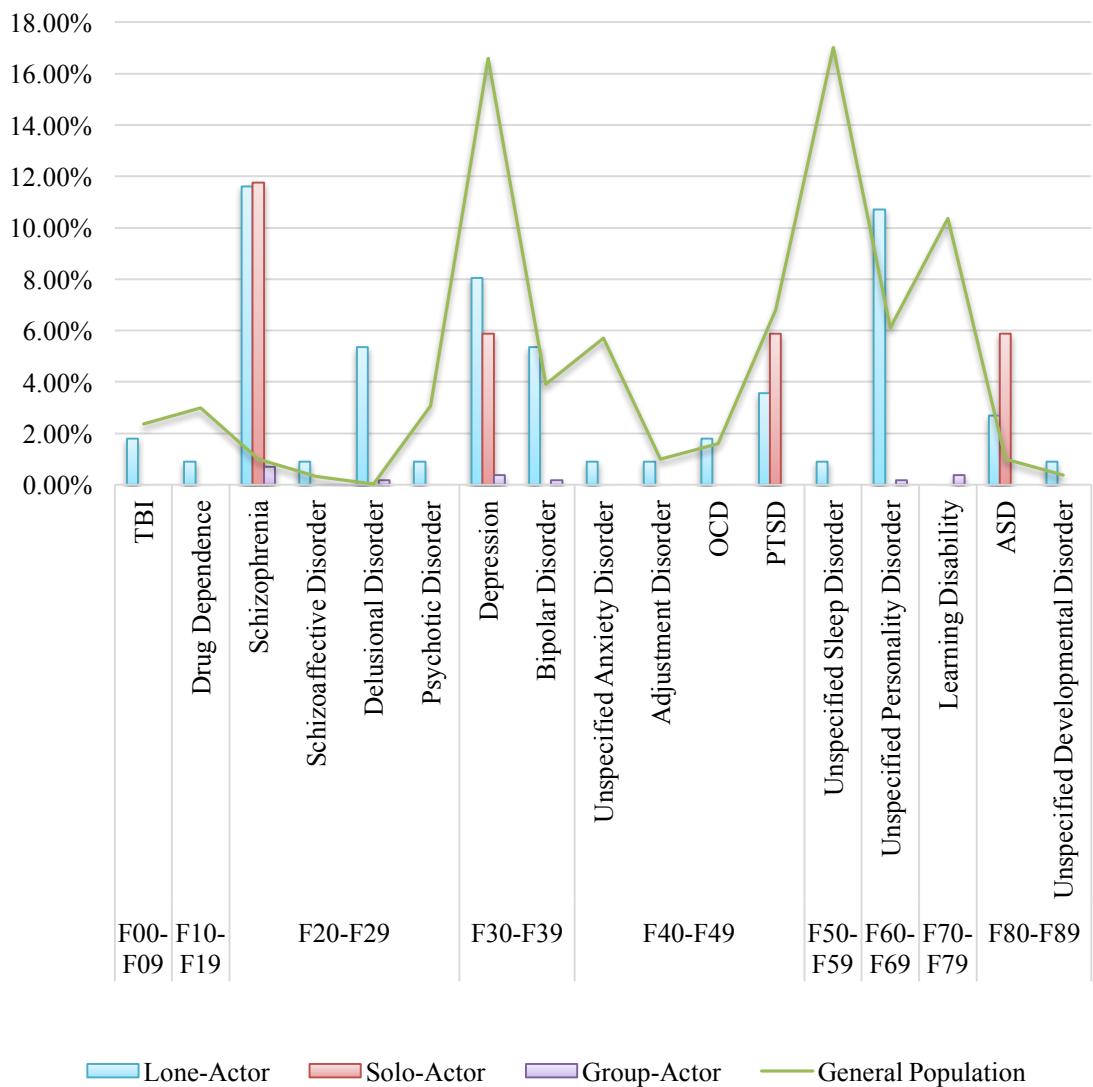


**Figure 4.2 Mental Disorder Prevalence across Terrorist Actors and the General Population**

## 4.5  Discussion

The results of both quantitative and qualitative analyses highlight the inherent complexities in terrorist behaviour, validating Silke's (2003) argument: "Terrorist groups vary hugely in their approach to recruiting new members and the strategies they use", and providing further empirical evidence for the importance of disaggregation, not only between lone-, solo-, and group-actors, but also between ideologies, groups, and individuals. The quantitative results demonstrated the need to stratify across actor and mental disorder type. The qualitative results demonstrated that the initial hypotheses postulating screening processes should be critically questioned, as only a small proportion of individuals pass through a recruitment process. When a recruitment process is employed, methods are highly dictated by trust and personal preferences. These results are now discussed in more detail.

The quantitative results highlight the importance of disaggregation of mental disorder. The initial results presented a smooth negative association between co-offending and mental disorder, partially supporting the early hypotheses, as solo-actors still hold a lower prevalence of mental disorder than the general population. However, when mental disorder was broken down across multiple disorder types, a different pattern emerged. Despite vast differences in overall prevalence, lone-actors showed a greater range in disorders, many lower than that of the general population, and solo-actors presented with higher levels of a smaller number of disorders (schizophrenia, PTSD, and ASD). These results demonstrate how the aggregate hypotheses fail to accurately consider the complexities of psychopathology.

The quantitative and qualitative results also lend evidence which supports the assumption positing that groups prioritise specific traits, however not in the direction of the hypotheses: Those with an overt mental disorder or vulnerability are sometimes recruited specifically to carry out an attack that the group feels the risk is too high for other group members. This has been seen in proxy bombings (Bloom & Horgan, 2008; Sandberg and Zand, 2008), where those with an overt mental disorder are tasked with carrying a device, and then remotely detonated. It has also been seen in more high profile cases within the UK. Nicky Reilly suffered from Aspergers, had limited social skills, and had a history of depression with self-harm and suicidal ideation, and had been detained in a mental health hospital. He was approached and befriended by a group of radical Muslim youths, who over a period radicalised him, and tasked him with carrying out an attack. Reilly's attack failed when the bomb prematurely exploded in the toilets of a busy restaurant in Exeter in May 2008. At trial the police were unable to source the individuals who Reilly had been involved with, and he alone

was convicted for the attempt.[51] In 2015, Kazi Islam befriended and attempted to radicalise Harry Thomas, who had Aspergers, and convince him to carry out an attack. Islam was arrested prior to any device being constructed. The evidence also demonstrated that for certain recruiters, a higher calibre of individual was sought. This was specific to the aims of the group, the area that they recruited, and the political situation. None of the accounts that mention targeting a higher calibre of individual specifically mentioned rejecting an individual with a mental disorder, or that an individual with a mental disorder was not seen as high calibre. This may be due to a lack of disclosure with individuals 'passing' to reduce the stigma of their illness in an environment where high functioning is expected (e.g. medical school, political arenas).

Following this, the qualitative evidence does not support the hypothesis, or the assumption that individuals with mental disorder are easily identifiable. No former recruiter could recall rejecting an individual because they had a mental disorder, they all also questioned how would it be possible to tell if an individual had a mental disorder thus supporting Quinn et al. (2004), Corrigan & Watson (2002) and Goffman (1963). The evidence highlighted that unless an individual had an overt learning or developmental disorder, a group may recruit them. Recruiters gave varying reasons, including; the individual had personal connections with the group (supporting the work of Hegghammer (2012)), their vulnerabilities were seen as attractive for manipulation, and they had a specific skill set the group required. The evidence also showed the impact of individual preference and tolerance. Some Right Wing skinhead recruiters targeted individuals with substance abuse issues, whereas others, in an attempt to elevate the productivity of the group, would openly avoid such individuals.

Specific to recruitment techniques, the quantitative evidence suggests the need to alter our understanding of what it is to join a terrorist group; 61.6% of individuals did not mention a formal entry into an organisation, and those who had suffered from psychological distress in their early life were just as likely to be recruited as those who did not. This evidence alone stresses that the selection effect hypotheses must be interpreted with caution. That the quantitative evidence was supported by the qualitative accounts only strengthens this conclusion. Of those who experienced a recruitment process, the evidence demonstrates the wide range of initiation techniques employed not only by groups, but by individuals within groups. Timeframes drastically differed, as did depth of affiliation. Spatial closeness and environmental similarities were shown to have no bearing on processes, as highlighted in

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[51] Reilly was held for eight years at Broadmoor psychiatric hospital following his conviction. On the 20th October, 2016, shortly after he was moved to HMP Manchester, Reilly was found dead in his cell, reportedly through suicide (McDonald, 2016).

Nationalist and Unionist autobiographical evidence (Adair, 2008; McGartland, 1999; Interview 3, 2016), and Right Wing skinhead organisations (Leyden, 2008; Michaels, 2010; Interview 1, 2016). Recruitment location also altered the prioritisation of traits, and this was particularly pertinent in Islamist movements. Geographically isolated training camps in Afghanistan focused on weapons training (Nasiri, 2006), would prioritise more trustworthy higher calibre individuals than colleges, Mosques, and schools within the U.K. (Husain, 2007), where in mass mobilisation of disaffected youth to non-violent roles, the recruiter was less selective over calibre. Recruitment process also altered over time and political circumstance. Evidence from the IRA highlighted that as the Troubles progressed, a different calibre of individuals began infiltrating the ranks (Interview 3, 2016).

The lack of consideration groups hold towards mental disorder has limited the range of these analyses. Within 83 autobiographical accounts, only one mentioned individuals with overt mental health problems. The quantitative data highlights that this was not because individuals with psychopathology were not involved in group-based terrorism, as 23.1% of individuals suffered from some form of psychological distress prior to engagement. The extant lack of mention provides support for individuals concealing their status, to reduce the stigma they perceive inevitable when labelled with a mental disorder. One interviewee posed an alternate hypothesis for the apparent lack of mental disorder within terrorist groups:

"It's not because there isn't mental illness there, but because they are part of groups that are less open to discussing it or seeking help? … Nobody wants to put their flaws out there." (Interview 1, 2016).

The results also serve to highlight that unless directly involved or affected, the authors had no reason to consider mental disorder of interest. Further work should focus on expanding the number of interviews with former recruiters for terrorist organisations, and gathering a wide range of specific evidence concerning mental disorder and recruitment. A further limitation to this work is dictated by technological advancements:

"The internet's changed, that is certainly a new addition. We didn't have that… It's quicker, but it's also anonymous, so when we were recruiting and we were meeting people, we were meeting face to face… it was really personal. Nowadays that human touch has been removed, so it allows people online to say things that they normally wouldn't say to somebody face to face… because you can hide behind a fake name or an avatar or whatever. There is a lot of misinformation out there that they use as propaganda, or people are finding it on their own… There are pages out there…

hundreds of them that will give you the answers that you are looking for, no matter what your question is…" (Interview 1, 2016).

The sheer number of social media accounts linked directly to ISIS (Berger & Morgan, 2015), and the proliferation of online blogs by influential recruiters (e.g. Aqsa Mahmood under the pseudonym `Umm Layth'), have changed the way recruiters work. This evolution has added further complexities in understanding behaviour. Further work should grasp this opportunity to greatly expand the understanding of the new facet of recruitment behaviours.

## 4.6    Conclusion

These results emphasise the need to disaggregate what it means to be a 'terrorist'. The wide differences in techniques and timeframes and complex and multifaceted interactions between group and potential recruit require present a strong case for rejecting reductionist hypotheses which do not account for individuals, social, environmental, and ideological influences and the behaviour of individuals both at risk of being recruited, and those who actively seek to recruit. The evidence within the chapter has presented a strong case to adjust common belief that individuals with a mental disorder are not recruited to a terrorist group, as this aggregate perspective of both mental disorder and recruitment discounts the complexities of human behaviour. The evidence presented in this chapter also gives a strong case for rejecting stereotypic and biased suppositions of media (and in some cases, academic) entities which fail to recognise the wide range of mental disorders and symptoms within, and that those with a mental disorder have periods where their mental health is stable and behaviour not overtly concerning (Hinshaw & Stier, 2008).

This chapter has been the first empirical work to test the hypothesis that the low prevalence of mental disorder within groups is due to selection effects, providing a more nuanced conclusion. In specific cases, an individual with a highly identifiable mental health problem may been seen as less desirable for recruitment because the personal opinion of the recruiter, combined with the ideology of the group, the environment, and the timeframe, deems the individual as less trustworthy and suitable for the group. The next chapter takes this evidence as a starting point, and moves to investigate an alternative hypothesis: The low prevalence of mental disorder within terrorist groups is due to protective elements a group provides.

# Chapter 5. Do Terrorist Groups Provide Psychological Protection?

## 5.1 Introduction

Chapter four presented a statistical investigation of recruitment processes, and examined the validity of the hypotheses surrounding selection effects, which would decrease the expected level of mental disorder within terrorist groups. The analyses demonstrated that an over-reliance on selection effects to explain the low mental disorder prevalence is not sufficient. Both group entry and individual psychopathology are complex and multifaceted, and are mediated by a number of individual, social, and environmental factors. The results of chapter four highlight the need for a more nuanced conclusion; selection effects *may sometimes* play a role in the low prevalence of mental disorder within group-actor terrorists. However, it is more likely that further underlying processes are also active. This chapter seeks to explore these processes further.

Pathway theories correctly interpret terrorist involvement as a complex and dynamic process. To date, the pathway models comprise of a limited number of stages; becoming involved, being involved, and disengaging (Horgan, 2008). Some pathway approaches acknowledge that being within a terrorist group, and the stressors that accompany this lifestyle *may* lead to psychological distress (Horgan, 2003), and in certain cases the development of a mental disorder (Weatherston & Moran, 2003). Indeed, it is now widely recognised within psychiatric literature that exposure to violence leads to an increased likelihood of developing longstanding PTSD symptoms (Amaya-Jackson & March, 1995; Brewin, Bernice, & Valentine, 2000; Perry & Azad, 1999). A great majority of this literature has focused on exposure to violence as a victim, with numerous trauma types studied, including natural disasters (La Greca, Silverman, Vernberg, & Prinstein, 1996; Goenjian et al., 2000; Pynoos et al., 1993), abuse (Widom, 1999), sexual assault (Foa, Rothbaum, Riggs, & Murdoch, 1991), physical assault (Foa, Riggs, & Gershuny, 1995), motor accidents (Blancard, Jones-Alexander, Buckley, & Forneris, 1996), terrorist attacks (Bleich, Gelkopf, & Solomon, 2003; Galea et al., 2002; Hobfoll, Canetti-Nisim, & Johnson, 2006), and prolonged trauma (Herman, 1992; Li, Howard, Stanton, Rachuba, & Cross 1998; Muldoon & Downes, 2007). There is also an expansive range of literature covering military veterans of conflicts (Hoge et al., 2004; Milliken, Auchterlonie, & Hoge, 2007; White, Mulvey, Fox, & Choate, 2012). However, there is also a small number of scholars who focus on psychological distress in criminal perpetrators of violence. Burton, Foy, Bwanausi, Johnson, and Moore (1994) carried out statistical examinations regarding dynamics of gang violence, and the subsequent impact on psychological functioning. Of the sample of juvenile offenders, 24% met clinical criteria for

diagnosis of PTSD following exposure to various aspects of gang related lifestyle. Cauffman, Feldman, Waterman, and Steiner (1998) highlighted that rates of PTSD symptoms within female juvenile offenders surpasses both general population prevalence and prevalence within male offenders. Hecker et al. (2013) compared voluntary and forced combatant recruits in the Democratic Republic of Congo. Although voluntary recruits perpetrated more violent acts, forced recruits were significantly more likely to report PTSD symptoms. Hermenau, Hecker, Maedl, Schauer, and Elbert (2013) investigated child and adult soldiers within the Democratic Republic of Congo. Child soldiers reported higher levels of both experience and perpetration of violence than adults. Child soldiers were also more likely to report trauma symptoms, and long standing aggressive behaviour. Papanastassiou, Waldron, Boyle, Chesterman (2004) investigated PTSD symptoms in a sample of murderers. The prevalence of PTSD following murder was found to be 58%, with a further 21% of individuals displaying symptoms.

Group-based terrorists are often both witnesses to, and perpetrators of violent behaviour. However, as chapter four highlighted, comparable to exposure other types of violence, levels of mental disorder in group-based terrorist actors[52] have been consistently reported as significantly lower than both lone-actors and the general population. This chapter seeks to investigate this discrepancy, and investigating whether social processes mediate against the psychological effects of violence exposure. Given the results from chapter four, it would not be unexpected to hypothesise that a terrorist group may provide some form of psychological protection. Agnew's (2010) general strain theory of terrorism purports those within a group to experience collective stressors. Despite the experience of such stressors, group involvement acts as a moderator to alleviate the effect (Grant et al., 2006). Group membership offers outlets for discomfort and discontent, lessening adverse effects (Agnew, 2010).

This chapter expands on these conclusions, utilising probability based modelling to unpick the complex and multifaceted individual, sociological, and psychological processes present within groups which provide psychological protection. This chapter aims to further chapter four, providing explanation of the protective factors present within terrorist groups. In order to identify how individuals are psychologically affected when engaged in terrorism as part of a group, it is necessary to move from static data, reporting behaviours for a single event, and investigate life spans of group-based terrorists.

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[52] When information has been gathered during or immediately following engagement.

## 5.2    Theory

Research has emphasised the importance of certain personal and environmental resources which buffer the effects of stress on health (Cohen and Wills, 1985; Dohrenwend and Dohrenwend, 1981; Garmezy, 1983; Wheaton, 1985). These protective resources can be internal, for example self-esteem and resilience, or external, for example social support. Research has shown that the detrimental effects of stress on mental health are less for individuals who possess such resources compared to those who do not (Dumont & Provost, 1999; Herman-Stahl & Petersen, 1996). This section will explore the internal and external protective factors present in terrorist groups.

### 5.2.1    Individual Level Protection

The results from chapter four, and the long-standing conclusions that group-actor terrorists do not suffer from mental disorders, may, in part, be due to individual resilience of those involved. The concept of resilience describes how a subset of high risk individuals are able to adapt to stressful situations thus lessening maladaptive psychological consequences. Herman-Strahl and Petersen (1996) defined four groups of adolescents; well adjusted (low stress, low depression), resilient (high stress, low depression), vulnerable (high stress, high depression), non-adjusted (low stress, high depression). They concluded that well-adjusted individuals had higher levels of optimism, more positive relationships with family and peers, and more active coping. They also found that resilient adolescents scored higher than vulnerable adolescents on these variables. These results suggest that resilient individuals may follow a normal development pattern even when faced with high levels of stress. Dumont and Provost (1999) replicated three of the four groups (well adjusted, resilient, and vulnerable), replacing 'stress' (negative life events) with 'daily hassles'. They concluded that resilient adolescents have higher levels of antisocial and illegal activities than well-adjusted and vulnerable groups, alongside the highest levels of coping strategies. Ong, Bergeman, Bisconti, and Wallace (2006) investigated the functional role of resilience in stress by examining daily and bereavement-related stress. They concluded that across short-term and longitudinal stressors, resilient individuals are more likely to have positive emotions, which, over time, assist highly resilient individuals in coping with various stressors. Gooding, Hurst, Johnson, and Tarrier (2011) compared resilience in younger (<26) and older (>64) adults, and highlighted differences in resilience across sub-sets (problem solving, social support, emotional regulation). Older adults were found to be more resilient in terms of problem solving and emotional regulation, whereas younger adult resilience was closely related to social

support. Low resilience scores in both adult groups were associated with high hopelessness, representing how negative future-oriented thinking detrimentally affects resilience.

The majority of studies of the protective factors within psychological resilience focus on victims of exposure (daily stressors, natural disasters, intimate partner violence) (Bonanno, 2004; Fletcher & Sarkar, 2013), and less on perpetrators. Research on perpetrators has mainly focused on the role of resilience on recidivism (Efta-Breitbach & Freeman, 2004; Fougere & Daffern, 2011), with sparse consideration as to the impact of committing offences on psychopathology. In an investigation measuring the impact of resiliency on desistance, Born, Chevalier, and Humblet (1997) identified that resilient offenders were significantly less likely to have a mental disorder diagnosis. Additionally, those who did have a diagnosis, were more likely to have a diagnosis of depression or anxiety, with individuals in the non-resilient cohort suffering from a higher frequency of major mental disorders. Born et al. (1997) concluded that resilience, as opposed to familial or community support, was the most important factor in an individual psychologically withstanding adversity.

There is also a field of research which stresses the importance of social bonds as a mediating factor for individual resilience. Aldwin, Levenson, and Spiro (1994) examined resilience and vulnerability in military servicemen. They concluded that the perception of negative effects of military service (e.g. loss of career and relationships) was positively related to PTSD symptoms,[53] and the perception of positive effects of service (e.g. development of coping resources) was negatively related to PTSD symptoms. Violanti, et al. (2008) considered the interaction between individual, team, and organisational factors within police organisations, developing the Stress Shield model of resiliency for officers. Paton et al. argue that through integration of individual, team, and organisational factors, officer capacity to overcome challenging situations increases substantially, sustaining individual resilience. As terrorist organisations often see their function as a military force, when investigating psychological resilience, it is important to also consider the impact of higher level group and organisational factors. The following sections will review existing literature of within-group factors, and their impact on psychological resilience.

### 5.2.2 Group-Level Protection

Although individual motivations may drive initial radicalisation, and entry attempts, individual and social influences within a group systematically affect the opinion and behaviour

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[53] Even when controlling for degree of combat exposure, depressive symptoms, and response style.

of actors. Individual motivation can be altered by the arguments of others (Smith & Mackie, 2007). Attitude and motivation is significantly affected by strong arguments, and source expertise (Borum, 2011; Jackson, 2009; Alderdice, 2007; McCauley & Moskalenko, 2008; Smith and Mackie, 2007 cite Petty et al.). Social psychology also hypothesises that fear incitement influences the motivation and ability to process messages. Smith and Mackie (2007) demonstrated how precisely calculated fear stimulation influences attitudinal change. Successful influential figures within groups are able to instil the correct level of fear in order to influence other members. Milgram (1963) demonstrated how influential authority figures can manipulate individual behaviour. Individuals within organisations are also motivated by group incentives and goals (O'Rourke, 2009). Group processes such as indoctrination, training, and peer pressure have also previously been hypothesised as influencing factors of violence, in spite of individual impetus (Victoroff, 2005). Victoroff (2005) speculated such transformations occur due to collective identity overriding personal identity. Cognitive dissonance may also play a role in behaviour change. Cognitive dissonance (Festinger, 1957) hypothesises how actions stimulate attitudinal change due to cognitive discomfort. Cognitive dissonance aids explanation as to why previously non-radicalised individuals take on extremist views following entry into, and action within a group.

Each of these theories implicitly or explicitly presume an underlying tension between the individual and the social self. Swann, Jetten, Gomez, Whitehouse, and Bastian (2012) condemn this bias as misleading, imploring the importance of considering both personal and social influences in extreme behaviour. Swann et al. highlight that dispositional motivations alone cannot explain why certain extreme behaviours are specific to particular organisations. On the other hand, purely social factors cannot explain why certain individuals will sacrifice themselves for the group. To understand the interplay between individual and social resilience in terrorist group behaviour, it is necessary to explain the impact of both social bonds and influences of individuals within groups.

### 5.2.2.1  Group Identity

The social identity perspective, which encompasses social identity theory (Tajfel and Turner, 1979), and self-categorisation theory (Turner, Oakes, Haslam, & McGarty, 1994), describes how an individual is influenced by a social setting. Providing an in-depth distinction between the personal (properties of the individual) and social (aspects associated with group membership) self. Individuals within a group form a shared identity around certain concepts and behaviours, excluding others who do not share such qualities. This phenomenon is seen across social groups, but remains particularly strong across criminal organisations. Social identity theory may be of some usefulness when considering terrorist groups (Huddy, 2001;

McCauley, 2002; Post et al., 2003). Huddy (2001) argues that social identity theory addresses intergroup conflict, group conformity, effects of low group status, collective action, and factors promoting categorisation of oneself into groups.

Identity fusion (Swann et al. 2012) purports to explain how the personal and social self is merged. The boundaries, which normally demarcate the personal and social self become highly porous, allowing aspects of both the personal and social self to cross over, without reducing the integrity of either self. Resulting in robust feelings of connectedness with both the group and group members. These strong feelings nurture relational ties to others within the group. With identity fusion, an individual retains a strong sense of personal self, which they channel into social behaviours which motivate and maintain the group, as Swann et al. (2012, p. 3) explain:

> "Moreover, just as highly fused persons will be inclined to believe that they themselves will do anything for the group and its members, they will project their feelings of personal agency onto others. As a result, they will develop the conviction that other group members are similarly disposed to protect the group and its individual members. This assumption that other group members are also extraordinarily committed to the group and its individual members will foster the perception of reciprocal strength, wherein highly fused individuals will perceive that the group is not only extremely powerful, but invulnerable due to the combined effect of personal and group agency."

A common cause of fusion with a group is sharing qualities within the group setting. These processes help to foster the individual belief that group members observe the world in the same manner (Pinel, Long, & Crimin, 2008; 2010; Pinel, Long, Landau, Alexander, & Pyszcynski, 2006), which encourages connective feelings, giving rise to fusion. Sharing of significant experiences also assist fusion (e.g. organised criminal groups experiencing enhanced cooperation following disclosure of violent experiences, and military actors fusing following collective experiences of conflict; Swann et al., 2012). Atran (2010), and Drury (2011) imply that shared experience is a more effective facilitator of fusion than perception of shared qualities. Baumeister, Bratslavsky, Finkenauer, and Vohs (2001) provided evidence that challenging or traumatic experiences are more effective facilitators for fusion than positive ones. Therefore, it is not unexpected that terrorist groups, and members undergo identity fusion (Monahan, 2015, Swann et al. 2012).

For fused individuals within a group, the shared qualities and experiences promote belief that group members share familial ties (Swann, Buhrmester, Jetten, Bastian, Vázquez,

et al., 2014), as well as experience collective ties to the group. These ties may consequentially lead to endorsement of self-sacrificial behaviours. Swann et al. (2014) explain that examples of 'selfless' behaviour on the behalf of a group, is not selfless. Instead, when individuals sanction sacrifice for others within the group, they do so out of feelings of personal obligation[54] for the individual, whom they see as a familial extension of themselves. Swann, Gómez, Dovidio, Hart, and Jetten. (2010) carried out four investigations concerning self-sacrifice following identity fusion. The first study demonstrated how individuals fused with their country were willing to jump to their deaths to save a fellow countryman. Studies two and three demonstrated how those fused with their country were willing to die to save a European (extended family) but not an American (out-group member). The final investigation highlighted that fused persons were willing to self-sacrifice if their death would result in the death of a threat to their country (family) (in this case a group of terrorists). Across all studies, fused persons remained more willing to sacrifice themselves than non-fused persons. Swann et al (2010) concluded that these results highlighted that fused persons would rather self-sacrifice than see a fellow in-group member die.

Given that robust identity fusion creates feelings of familial ties amongst members, it is not unexpected that highly fused individuals may experience feelings of separation from previous close relationship ties, for example blood relatives. As the state of fusion encompasses an individual, it may compromise their ability to compartmentalise group with non-group experiences (Hugenberg & Bodenhausen, 2004). Thus impairing an individual's ability to be flexible in maintaining healthy relationships with individuals who are not members of the fused group. Li et al. (2002) support this, identifying that compared with non-gang involvement, youths involved in gangs showed significantly lower levels of family involvement, family communication, and parental monitoring.

Following this evidence, fused identity within terrorist groups may act to enhance individual resilience. Identity fusion implies that even though an individual retains their individual self, the fusion of the group-self endorses group action, and self-sacrifice, leading to an individual resilience not previously present. The next section expands on identity fusion, and outlines how fused identities protect from external stressors.

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[54] Also see Gómez, Morales, Hart, Vázquez, & Swann (2011) for an investigation into self-sacrifice as a response to irrevocable ostracism from a group

### 5.2.2.2 Protection from Stressors

Further support for the documented low prevalence of mental disorder and psychological distress within group-based terrorist actors, intrinsically linked to identity fusion, is a relative lack of reaction to specific stressors found in other group types. The conditions necessary for a key stressor, group-based guilt[55] (self-categorisation as a member of a social group as having a more advantageous position over out-group members, assigning self-responsibility for the advantage over out-groups, and perceiving that this advantage is caused illegitimately through discrimination, exploitation, and/or mistreatment (Iyer, Leach, & Crosby, 2003; Swim & Miller, 1999; Zebel, Doosje, & Spears, 2009)), are often not verbalised by group-based terrorists. Zebel et al. (2009) explain that robust group identification can negate group-based guilt, thus eliminating a major group stressor. A further stressor that groups may experience is perceived intergroup threat. Such threats have the potential to negatively affect group relationships, and psychological wellbeing. However, Schmid and Muldoon (2013) proposed that within highly fused groups, perceived intergroup threat actually leads to increased social identification (Branscombe, Ellemers, Spears, & Doosje, 1999; Ethier & Deaux, 1994; Turner, Hogg, Turner & Smith, 1984), which in turn, provides psychological protection for the group members.

Group identification has also been positively linked to intergroup emotion theory (IET, Mackie, Silver, & Smith, 2004; Zebel et al., 2009). IET postulates that group-based emotions manifest within individuals, leading to greater feelings of identity with the group, therefore fortifying identity fusion. For example, it has been demonstrated that group identification positively predicts outgroup directed anger (Yzerbyt, Dumon, Wigboldus, & Gordijn, 2003), driving forward the belief that the group is superior. This highlights that IET may function as a group-based stress reduction mechanism. The self-criticism inherent in group-based guilt is less likely to be present in groups with strong inter-group identification (Doosje, Branscombe, Spears, & Manstead, 1998; Zebel et al., 2009). These groups are more inclined to protect the positive value of the in-group, and therefore experience weak feelings of guilt (Gordijn, Yzerbyt, Wigboldus, & Dumont, 2006). Within groups who perpetrate harm, there is a risk of negatively affecting social identity when employing the perspective of out-groups. Therefore, as a guilt-reduction mechanism, highly fused individuals are motivated to downplay the in-group responsibility for harm inflicted (Zebel et al., 2009), or reappraise negative experiences in a way that emphasises the benefits to the group (Muldoon, Schmid, Downes, 2009). Muldoon and Wilson (2001) concluded that adolescents in Northern Ireland who experienced violence, reported high levels of psychological wellbeing when ideological commitment to the

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[55] Where members ruminate on their responsibility for the suffering of others.

group was strong. Muldoon and Downes (2007) identified symptoms of PTSD in adults who had the weakest identification with their national group.

Other than safeguarding from feelings of guilt, the social support within a highly fused organisation also plays a protective role in reducing other stressors on individual members. Social support includes both the sources of support (individuals), and the support received (emotional, instrumental) (Dumont & Provost, 1999). Cohen and Wills (1985) reviewed literature concerning models explaining the protective role of social support on stress. The first model, the buffering model, posits that social support buffers from harmful influences in stressors. The second model, the main effect model, explains how social support is beneficial regardless of whether stressors are experienced. Cohen and Wills concluded a reliable evidence base for both models, and suggested that in low instances of stress, the main effect model is sufficient to protect from stress. However, in high stress situations, the personal interactions in the buffering model are utilised to alleviate stress. Muldoon and Lowe (2010) agree, arguing that group membership and identity is intrinsically related to how individuals appraise stressful situations. Haslam, O'Brien, Jetten, Vormedal, and Penna (2005) modelled the effects of group membership on appraisal of stressors and subsequent outcomes. Illustrating how group membership helps to mediate the experience of stress. Social support providing protection from stressors has been repeatedly demonstrated across multiple group types.

Beneficial effects of social support have been observed in youth (Cohen and Wills, 1985; Daniels and Moos, 1990; Dubow and Tisak, 1989). When young adolescents self-reported low satisfaction with social support, the probability of suffering anxiety, depression, or sleep disturbances was high (Dumont & Provst 1999, cite Bolognini et al.). In adolescents and young adults, low satisfaction with social support was found to be associated with depressive, psychosomatic symptoms, and anxiety (Dumont & Provost, 1999, cite Burke and Weir). Başoğlu, et al. (1994) compared political and non-political prisoners who experienced torture in Turkey. Political prisoners showed lower rates of PTSD symptoms than non-political prisoners despite experiencing greater levels of violence. Kaniasty and Norris (2008) investigated survivors of Mexican mudslides and floods. Examining impact of social support on PTSD symptoms, Kaniasty and Norris concluded that immediately following a natural disaster, received and perceived social support functioned as a protective resource, benefitting mental health. Drury, Cocking, and Reicher (2009) studied survivors of the London bombings. There was evidence of shared identities emerging due to the collective experience. This development of social identification aided in ameliorating negative psychological consequences of the bombings. Hobfoll, Canetti-Nisim, and Johnson (2006) surveyed 905

individuals exposed to terrorist attacks. Using structural equation path modelling, they identified that psychosocial resource loss had a major impact on increasing both PTSD and depressive symptoms.

This review has highlighted the importance of both individual and social level factors on protective psychological processes. To date, there has been no empirically driven research which has investigated how individual psychological resilience protects an individual involved in a terrorist group, or how social structures and processes strengthen an individual's resilience. This chapter uses the autobiographical dataset to examine if social support provided by terrorist groups protects individuals from the negative psychological effects of an inherently stressful lifestyle.

## 5.3    Data & Method

This chapter uses the database of autobiographies to reconstruct the life events of terrorist actors involved in group-based terrorism. Qualitative information provides in depth illustrations of autobiographical evidence, and novel inferential statistical analyses explore how specific experiences act as protective factors, buffering individuals from stressors within the environments. This statistical background and procedure is now explained.

Fitting with the assertions in chapter two, terrorism studies continues to lag behind developments in the wider criminological and psychopathological literature. Chapter one explained how a limited number of scholars utilise pathway modelling to understand terrorist behaviour. Proximity coefficients offer an opportunity to develop this work, holding the potential to quantitatively identify key risk and mediating factors that affect an individual's life course in terrorism. To date, there is no research that uses process theories and analysis to state to map psychopathology across terrorist life courses. Given the results from chapter four, in the subsequent two chapters, proximity coefficients will be generated and analysed to determine the impact of both protective and risk factors that individuals encounter when engaged in and disengaged from terrorist activities.

As the previous chapters have highlighted, the heterogeneity of terrorism means that experiences, processes, and actions are not consistent across actors. Inferential statistics typically focus on the relationship between immediate events, and human behaviour is often much more complex than such simple mono-causal interactions imply. Often immediate behaviours or experiences within a sequence are related, but only after one or more behaviours earlier in the sequence. It is highly imperative to capture the more indirect behaviours and

experiences, as these may be critical to how a process develops (Taylor & Donald, 2003). Therefore, it is necessary to utilise an empirical methodology which identifies common processes, whilst also retaining the complex individual processes. Proximity coefficients (Buene, Giebels, & Taylor, 2010; Giebels & Taylor, 2009; Taylor, 2006) achieve this. This analytical method utilises quantitative analysis to deliver a sequence, highlighting trajectories of behaviour, enhancing qualitative understanding. Sequencing of behaviours has been demonstrated across a wide range of situations, including marital interactions (Gottman, Markman & Notarius, 1977), traffic accidents (Clarke, Forsyth & Wright, 1999), rape (Fossi, Clarke, Lawrence, 2005), and terrorist mobilisation (Jacques & Taylor, 2007; Jacques, 2010). The outputs allow for easy interpretation of the ways in which experiences come together over time (Taylor et al., 2008).

The proximity coefficient helps to identify how nodes within the same area of a sequence have more in common when they are temporally closer than when they occur further apart. The coefficient is 0.00 if the nodes under scrutiny occur at opposite ends of the sequence. However, if one node immediately precedes another, the coefficient is 1.00 at any point in the sequence. Values between 0.00 and 1.00 reflect the different levels of proximity between two nodes being examined, and are independent of length of sequence and frequency of node occurrence.

To generate the coefficients, experiences within each case are assigned a code (e.g. if an individual described an incidence of physical abuse, it was coded as PhysAbuse). These codes are then arranged in chronological order, starting with the earliest experience. Each case is then analysed and a matrix is computed. An example of a proximity coefficient matrix is highlighted in Table 5.1 below. The ten experiences within the sequence are denoted by letters, and the matrix shows the coefficients. For example, within the sequence C only occurs once, and is directly preceded by A, therefore within the matrix the proximity coefficient for C, when followed by A is 1. C is not preceded by any other letter, so the rest of the column for C is empty, but because C precedes eight other letters, the row for C highlights numerous coefficients, which decrease in value as the sequence develops.

**Table 5.1 Behavioural Sequence and Resulting Proximity Coefficient Matrix**

| Behavioural Sequence | Behaviour-Type | A | B | C | D | E |
|---|---|---|---|---|---|---|
| | | Behaviour-Type | | | | |
| A C E D D B E A B E | A | 0.250 | 0.750 | 1 | 0.750 | 0.875 |
| | B | 0.875 | 0.750 | --- | --- | 1 |
| | C | 0.375 | 0.625 | --- | 0.875 | 1 |
| | D | 0.688 | 0.938 | --- | 1 | 0.812 |

| | | E | 0.750 | 0.812 | --- | 1 | 0.688 |

To evaluate whether the observed proximities are likely to have occurred by chance (e.g. whether the probability of imprisonment following arrest and criminal behaviour is higher than that expected under the null hypothesis), the sequence is statistically compared across the dependent variable on two or more conditions (psychological distress and non-psychological distress). The resulting test statistics is then compared to a set of statistics computed following randomisation. A randomisation test (Giebels & Taylor, 2009; Taylor, 2006) shuffles the derived coefficients between the two groups (psychological distress and non-psychological distress), and calculates a test statistic. This calculation is permuted many times (e.g., 10,000 times), with test statistics calculated for each randomisation. This produces a range of test statistics that might have been expected if the sequence were random. This range is then assessed to determine the probability of obtaining the original sequence (criminal, arrest, imprison) and test statistic. The fewer times the observed test statistic appears in the randomised series of statistics, the lower the resulting probability (p) value.

## 5.4    Results

### 5.4.1    Prevalence

Prior to inferential analyses, prevalence rates of mental disorder and psychological distress were identified. Thirteen (11.9%) actors within the dataset disclosed that they suffered from a mental disorder at some point during their life span. Given the earlier discussion in chapter two, concerning the misconceptions surrounding mental disorder in terrorism literature, and the open source descriptive analysis in chapter four, this figure may initially appear surprising. However, following the logic of the seminal reviews conducted by Borum (2004), Horgan (2003, 2005), Silke (1998, 2003), and Victoroff (2005), this figure is unexpected in the sense that it sits below the general population average of 25%. This may be due to a number of factors. First, it may be due to the earlier predicted lack of disclosure by authors. Second, it may be due to cultural differences. Autobiographies were taken from multiple countries, and as highlighted by Kessler and Üstün (2008), mental disorder prevalence differs greatly across countries. Third, it may be due to a lack of official diagnoses (if the individual never sought professional advice for their distress).

Taking these concerns into account, and given the higher reporting rates for psychological distress, inferential analyses focused on psychological distress. An individual

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was coded as suffering from psychological distress if they gave insight into their poor mental state. Examples of psychological distress include Cathy Wilkerson's distress during her childhood; "…deeply unhappy. My mother seemed perpetually disappointed in me... She saw my shyness and social confusion as possible indications of rudeness and bad manners" (Wilkerson, 2007, p. 27). Ingo Hasselbach's suicidal ideation during engagement "I started to think of hanging myself that night. I looked around for places to do it, thinking that, just as it was a disadvantage to be as tall as I was in a firefight, it was equally a disadvantage when you wanted to hang yourself." (Hasselbach, 1996, p. 330), and Susan Stern's continuing mental health problems throughout her engagement; "I flopped around doing nothing for two weeks, sunk in melancholy. I continued taking downers. I drank-anything to relieve my misery, to allow me to sleep" (Stern, 1975, p. 241). Psychological distress was measured in three spaces, pre-engagement, during engagement, and post-disengagement. The prevalence rates for mental disorder and psychological distress are highlighted in Table 5.2. Table 5.3 presents correlation coefficients and frequencies of reported distress. 71.4% of actors who suffered psychological distress prior to engagement in terrorism also suffered during involvement, and 66.7% of actors who suffered prior to engagement continued suffering distress following disengagement. 70% of actors who suffered psychological distress during engagement also suffered in the post disengagement period. Spearman's rho coefficients demonstrate significant positive effects, but these effects are low, highlighting the importance of considering the impact of external factors on the psychological wellbeing of individuals.

**Table 5.2 Prevalence Differences in Mental Disorder and Psychological Distress**

Prevalence

| Mental Disorder | Psychological Distress Prior to Terrorist Engagement | Psychological Distress During Terrorist Engagement | Psychological Distress During Post-Disengagement Period |
|---|---|---|---|
| 11.8% | 23.1% | 45.9% | 41.9% |

**Table 5.3 Relationships between Psychological Distress Over Time**

| | Psychological Distress Prior to Terrorist Engagement | Psychological Distress During Terrorist Engagement | Psychological Distress During Post-Disengagement Period |
|---|---|---|---|
| Psychological Distress Prior to Terrorist Engagement | ---- | rho=0.265, p=0.011 N=91 | rho=0.331, p=0.006 N=68 |
| Psychological Distress During | | ---- | rho=0.532, p=0.000 N=86 |

| | | |
|---|---|---|
| Terrorist Engagement | | |
| Psychological Distress During Post-Disengagement Period | ---- | |

## 5.4.2 Early Life Resilience

Chi Square and associated Fisher's Exact tests were conducted to identify significant associations between psychological distress and early life experiences. Table 5.4 highlights those experiences found to be significantly associated with the suffering of psychological distress.

**Table 5.4 Significant associations between Early Life Experiences and Psychological Distress**

| Experience | Frequency Psychological Distress N=21 | Frequency No Psychological Distress N=70 |
|---|---|---|
| Caretaker Physically Abusive | **61.9%*** | 21.4% |
| Caretaker Verbally Abusive | **23.8%*** | 5.7% |
| Familial History of Mental Disorder | **33.3%*** | 7.1% |
| Good Relationships with Family | 23.8% | **44.3%*** |
| Children | 0.0% | **21.4%*** |
| Involved in Criminal Behaviour | **61.9%*** | 35.7% |
| Loner | **57.1%*** | 2.9% |
| Alcohol Abuse | **38.1%*** | 10.0% |
| Drug Abuse | **52.4%*** | 10.0% |

**NB: *=p<0.05, **=p<0.01, ***=p<0.005**

Individuals who reported experiencing psychological distress prior to involvement in terrorism were significantly more likely to experience a range of negative early life experiences consistently identified as risk factors for psychopathology, such as suffering from physical $(X^2(1)=12.424, p=0.000, OR=5.958)$ and verbal $(X^2(1)=5.935, p=0.015, OR=5.156)$ abuse, a familial history of mental disorder $(X^2(1)=9.679, p=0.002, OR=6.500)$, alcohol (Fisher's Exact Test=0.005, OR=5.538), and drug (Fisher's Exact Test=0.000, OR=9.900). Individuals who reported experiencing early life psychological distress were also significantly more likely to express feelings of loneliness (Fisher's Exact Test=0.000, OR=45.333), and carry out criminal (non-terrorist related) behaviours $(X^2(1)=4.556, p=0.033, OR=2.925)$. Individuals who did not report experiencing psychological distress were significantly more likely to classify their familial relationships as 'good' (Fisher's Exact Test=0.017), and have children prior to involvement (Fisher's Exact Test=0.018).

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Experiences of early life psychological distress came from a variety of situations, and at different points in lifespans. One early mention of distress was verbalised by Omar Nasiri:

"My life ended when I was eight years old. I was in the bedroom, sitting at the desk building a model airplane. My oldest brother, Hakim, was wrestling on the bunk bed with Rochdi, one of my younger brothers. I was annoyed because I couldn't concentrate, so I took a break and went to the bathroom to get a Q-tip. When I returned to the room they were still wrestling, and I sat on the floor and started to clean my ears. Seconds later my brothers tumbled off the bed and fell on top of me. I felt the stick ram into my eardrum, and a searing pain shot through my body… And then my eardrum was destroyed. I'm still almost totally deaf in my left ear. I knew that I could never be in the army, that I was never fly a plane. I had nothing to live for. I had lost everything that mattered." (Nasiri, 2006, p. 10-12).

Later onset of psychological distress was also common:

"the rest of university life depressed me intensely. I had expected it would be the intellectual experience of my life. But the long discussions amongst my fellow students were academic, theoretical and parochial. The only issues of politics lay in the marginal differences between the two main political parties… and even when dissatisfactions were voiced, no one contemplated ever doing anything to remedy them… I hated the oppression of the system in Ireland, and the totalitarian position of the Catholic Church which forced its views on me. The feeling of claustrophobia, of being imprisoned, built up in me, until, ten days before I was due to sit my final exams, I took all the sleeping pills I could find in our house and slashed my wrist." (McGuire, 1973, p. 14-15).

"By the time I returned for the second year [of University] in October, I had begun to feel extremely depressed. My relationship with a girl from Newry had ended over the summer, causing emotional turmoil which, compounded with the desperate political situation, made me feel I was stumbling around in darkness. I sought help from the student counselling service, but they could not do anything for me. My second year at Queens became a disaster, and I deferred my exams. I had badly lost my way." (Collins, 1997, p. 54).

"I saw men who did not know each other, and who had never done each other harm, simply shooting each other down. I realised that things were not as they should be. My

experiences at the front gradually taught me that we were not fighting for any real cause. I could not talk to my fellow soldiers. They did not understand my depression or my doubts. My situation was all the more difficult because I did not join in their card games or other amusements… I was so desperate that I very nearly shot myself." (Hoelz, 1930, p. 39-40).

The bivariate results appear to initially contradict previous research on resilience, however, there are still a proportion of individuals who experience early life stressors and did not report psychological distress (21.1% reported physical abuse, 5.6% reported verbal abuse, and 7.0% had a familial history of mental disorder). An example of individual resilience comes from Aukai Collins (2002). Collins' parents divorced when he was young, and when he went to live with his mother, he was immersed into a very dangerous lifestyle:

"my mother took us back to Hawaii a couple of times, and all the while she was getting sucked deeper into drugs and alcohol. Not only was she using drugs, but she had somehow become involved in selling them aswell… I must have been about seven when she started to disappear for two and three days at a time. I mostly remember eating cold SpaghettiOs, falling asleep with all the lights on and the TV blaring to keep myself from getting scared. As if this wasn't enough, she started going out with a guy named Greg, and the domestic violence started. My mother wasn't soft by any means, and on more than one occasion she broke Greg's nose or blackened his eyes with the gold and brass bangles on her wrists. Looking back, I guess God provided me with a well-rounded troubled childhood theme… My father didn't come around very often… I remember an occasion when he came to visit me and we wanted to go somewhere. My mother wouldn't let him take me, and they started to fight. She pulled a knife on him and put me in the middle as a shield." (Collins, 2002, p. 135).

Collins' mother was then murdered, and he went to live with his father and stepmother, who Collins claimed also had substance abuse issues. After one year he moved to live with his paternal grandparents, and when they could no longer cope with his behaviour, he moved back to his father and stepmother. Collins went on to explain:

"by the time I was fifteen I was involved in gangs and carrying a .357 magnum to school in San Diego." (Collins, 2002, p. 139).

These extracts highlight that more psychologically resilient individuals may indeed experience the same stressors, but the outcomes of these experiences are different. This highlights the

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importance of moving from static data, to examine how psychological wellbeing is affected by multiple experiences across a lifespan.

The initial bivariate results above appear to imply a distinct set of experiences may equally impact on mental health. However, in reality, this is a far more complex picture. Table 5.5 shows the proximity coefficients for individuals who did not suffer psychological distress for the above significant behaviours, and Table 5.6 shows the proximity coefficients for individuals who did suffer from psychological distress. These tables highlight how behaviours that occur closer in time and space (closer to 1.0) may have more of an impact on the outcome (psychological distress) than those that occur farther away (closer to 0.0).[56]

Tables 5.5 and 5.6 present a more nuanced picture of attribution of causality. The association between physical abuse preceding drug abuse was closer for individuals who did not report psychological distress, this value approached significance, (F=3.33283, p=0.08). Due to the low frequency of reported experiences, no further differences were significant. However, it is possible to discern patterns from the data. Within the samples, individuals who did not report psychological distress reported better familial relationships prior to abuse, which were maintained after both physical and verbal abuse, whereas those who reported psychological distress did report good relationships prior to physical abuse, and did not maintain good relationships following verbal abuse. Those who reported psychological distress also showed a pattern of more self destructive behaviours following verbal abuse. Individuals who did not report distress had a pattern of drug and alcohol abuse which started sooner after physical abuse than those who reported distress. These individuals were more likely to become socially isolated and turn to crime before substance abuse, whereas in those who did not report distress substance abuse was more likely to precede criminal behaviour.

Within individuals who did not report psychological distress, the birth of a child appears to halt drug abuse and criminal behaviours. In those who reported distress, alcohol abuse always preceded substance abuse, but this was more nuanced in those who did not report distress. Within individuals who did report psychological distress, this reporting never preceded a familial member being diagnosed with a mental disorder, physical or verbal abuse, or good familial relationships. Psychological distress was more immediate following verbal abuse, as compared to physical abuse, and was more likely to occur quickly after a family

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[56] Matrices are offset, as experiences can occur at multiple times during a sequence. Horizontal values show coefficients for experience prior to others listed. Vertical values show coefficients for experience following others listed.

member was diagnosed with a mental disorder and social withdrawal. However, across actors, psychological distress was more likely to precede criminal behaviours, alcohol and drug abuse.

**Table 5.5 Coefficient Matrix for Experiences of Individuals with No Recorded Psychological Distress**

| | Caretaker Physically Abusive | Caretaker Verbally Abusive | Familial History of Mental Disorder | Good Relationship with Family | Children | Involved in Criminal Behaviour | Loner | Alcohol Abuse | Drug Abuse |
|---|---|---|---|---|---|---|---|---|---|
| Caretaker Physically Abusive | ---- | 1 | ---- | 0.685 | 0.487 | 0.614 | 0.774 | 0.800 | 0.740 |
| Caretaker Verbally Abusive | ---- | ---- | 1 | 1 | 0.800 | 0.681 | ---- | ---- | ---- |
| Familial History of Mental Disorder | ---- | ---- | 0.163 | 0.400 | ---- | 0.625 | ---- | 0.750 | 0.625 |
| Good Relationship with Family | 0.109 | ---- | 0.500 | 0.003 | 0.393 | 0.567 | 0.875 | 0.812 | 0.774 |
| Children | ---- | ---- | ---- | ---- | 0.226 | ---- | ---- | ---- | ---- |
| Involved in Criminal Behaviour | ---- | ---- | ---- | ---- | 0.785 | 0.065 | ---- | 0.188 | 0.373 |
| Loner | ---- | ---- | ---- | ---- | ---- | 0.538 | ---- | ---- | 0.778 |
| Alcohol Abuse | ---- | ---- | ---- | ---- | ---- | 0.834 | ---- | 0.138 | 0.844 |
| Drug Abuse | ---- | ---- | ---- | 0.636 | 0.766 | 0.766 | ---- | 0.333 | 0.058 |

**NB ---- = No coefficient generated as behaviour never occurred prior**

**Table 5.6 Coefficient Matrix for Experiences of Individuals with Recorded Psychological Distress**

| | Caretaker Physically Abusive | Caretaker Verbally Abusive | Familial History of Mental Disorder | Good Relationship with Family | Psychological Distress | Involved in Criminal Behaviour | Loner | Alcohol Abuse | Drug Abuse |
|---|---|---|---|---|---|---|---|---|---|
| Caretaker Physically Abusive | ---- | 0.750 | 0.959 | 1 | 0.550 | 0.627 | 0.744 | 0.569 | 0.443 |
| Caretaker Verbally Abusive | 0.250 | ---- | 0.988 | ---- | 0.715 | 0.626 | 0.463 | 0.335 | 0.378 |
| Familial History of Mental Disorder | ---- | ---- | ---- | ---- | 0.773 | 0.741 | 0.606 | 0.428 | 0.453 |
| Good Relationship with Family | ---- | ---- | ---- | ---- | 0.506 | 0.596 | 1 | 0.641 | 0.833 |
| Psychological Distress | ---- | ---- | ---- | ---- | 0.078 | 0.505 | 0.182 | 0.577 | 0.626 |
| Involved in Criminal Behaviour | ---- | ---- | ---- | ---- | 0.372 | 0.058 | 0.321 | 0.903 | 0.541 |
| Loner | ---- | 0.292 | 0.167 | ---- | 0.720 | 0.458 | ---- | 0.753 | 0.688 |
| Alcohol Abuse | ---- | ---- | ---- | ---- | 0.330 | 0.304 | ---- | ---- | 1 |
| Drug Abuse | ---- | ---- | ---- | ---- | 0.282 | 0.370 | ---- | ---- | ---- |

**NB ---- = No coefficient generated as behaviour never occurred prior**

### 5.4.3 Group-Level Protection

To identify social connectedness and identity fusion a series of variables concerning relationship ties were examined. 69.7% of actors had personal contact with members of the group's executive leadership. Within these individuals, 38.5% ratted their relationship with the group leaders as positive, and 50% expressed a favourable attitude towards the leadership. Social ties between group members were also examined, with results highlighting that 50.5% of actors rated their relationships with fellow group members as positive, and 52.3% described their attitude towards fellow group members as favourable. Results also highlight that 65.1% of individuals maintained external ties with family and friends outside the terrorist group. These descriptive results, alongside the earlier prevalence of 45.9% of individuals expressing psychological distress whilst engaged, initially appear to suggest a role for social connectedness helping to buffer from psychological distress.

**Table 5.7 Significant Associations between Group Relationship Experiences and Psychological Distress**

| Experience | Frequency Psychological Distress N=50 | Frequency No Psychological Distress N=59 |
|---|---|---|
| Individual was a Spy | **19.6%**** | 3.4% |
| Poor Relationship with Leaders | **18.0%**** | 1.7% |
| Retain ties with Family & Friends not in group | **72.0%**** | 45.8% |
| Trouble Balancing Marriage with Activities | **89.7%*** | 66.7% |
| Trouble Balancing Children with Activities | **84.6%*** | 57.1% |

NB: *=p<0.05, **=p<0.01, ***=p<0.005

Chi Square and associated Fisher's Exact Tests were run to discern if the above frequencies do highlight an association between enhanced social identity and connectedness within a group and psychological protection. Of the 30 variables tested, only five highlighted significant differences between individuals. Individuals who reported experiencing psychological distress were significantly more likely to act as a spy during their terrorist activities ($X^2(1)$=7.622, p=0.006, OR=7.125), and they were more likely to report having a poor relationship with leaders of the group (Fisher's Exact Test=0.008). They were also significantly more likely to retain friendships external to the immediate terrorist group ($X^2(1)$=7.638, p=0.006, OR=3.048). Those who reported psychological distress were significantly more likely to report problems balancing their marriage with their activities ($X^2(1)$=4.885, p=0.027, OR=4.333). They were also significantly more likely to have trouble balancing being a parent with their activities ($X^2(1)$=4.880, p=0.027, OR=4.125).

Given the lack of significant differences of protective factors between individuals who experienced psychological distress when engaged, and those who did not, no further inferential

analyses were run. The results are suggestive that protective factors alone are not sufficient to explain a low prevalence of mental disorder within terrorist groups, and intense social relationships, may in some cases not be sufficient to protect an individual from the risks of engagement, as in the case of Juozas Daumantas (1975), who despite consistently reporting excellent, highly cohesive relationships based on ideology, reported suffering distress due to the lifestyle of being involved in a terrorist group.

"I reviewed in my mine the hundreds of comrades-in-arms no longer in the living, The journey of all had been the same- from the battlefield to the graveyard or dunghill… When one thought about this, one wondered: Are we not made to fight under such dreadful conditions? The free, who enjoy human rights, are very likely to consider us mad because they do not know what it is to lose one's freedom. Nor do they know the sacrifices that must be made, by men and women alike." (Daumantas, 1975, p. 202).

Other sources suggest that intense social bonds may actually play a role in psychological distress. One highly fused actor, Ann Hansen (2002) described the social connectedness she experienced during engagement:

"In early February 1981 I flew back to Ontario. I had only lived in Vancouver a few months, but so much had happened it felt like years. I liked my new friends so much that I wouldn't have left if it hadn't been a practical necessity" (Hansen, 2002. p. 53).

Hansen described a removal of previous social ties with individuals who did not share her ideology. The cell she engaged with also 'went underground', to enhance their cohesion, planning activities, and to avoid detection. Hansen described how the intense connectedness within the group was detrimental to her psychological wellbeing:

"I felt truly alienated from the image I presented to the world, and from now on each of the superficial aspects of my life would be in keeping with this image. I hoped I could come to terms with it but not lose my old self. Our identities are made up of so many small things: the food we eat, the kind of home we live in, our clothing, the way we walk, our friends and partners. The only bond I would have with the old me would be Brent and Doug. Our relationships would be so important. I could already imagine how devastating it would be if they began to crumble. With no friends to visit, no family to share the past with, cut off from all the cultural events we used to attend, the pressure on our mutual relationships would be immense. There would be no one else

with whom we could vent our frustrations, share our fears, joys, and love. The enormity of our isolation dawned on me, and I felt so alone." (Hansen, 2002. p. 168).

The prevalence data also helps to highlight why social support as an explanation for low prevalence of mental disorder may not be sufficient. In, 65% of the cohort of individuals who did not report psychological distress prior to engagement, did report psychological distress during their engagement. This, alongside the above evidence helps to propose that the suggestion that social connectedness provides a psychological buffer which protects from distress is not sufficient to explain the low prevalence of mental health problems in group-actor terrorists.

## 5.5   Discussion

The resulting evidence from chapter four highlighted the need to move away from reductionist selection effect theories when explaining mental disorder prevalence in group-actor terrorists. This chapter critically examines a second stream of theories which purport the low prevalence of mental disorder to be due to protective social factors which buffer from psychological distress. This literature has a static focus, and does not consider how psychological problems may manifest over time. To counter this, inferential statistics were used to highlight why viewing terrorism as a state, rather than a process is not sufficient to explain complex psychological and social processes. Static inferential analyses traditionally imply the same weighting to experiences, however, proximity coefficients and their associated analyses highlight how the experience of psychological distress is mediated by numerous factors and the combination of these factors. The results implied that protective factors alone are still not sufficient to explain the low prevalence of mental disorder, and in fact, the 'low' prevalence may actually be a function of disclosure and timeframes. Results are now explained further below.

The initial quantitative prevalence data highlights the need to review the way mental disorder is interpreted. The prevalence of mental disorder within group-based terrorists initially suggests that current presumptions surrounding mental disorder and terrorism may be correct (McCauley, 2002; Post et al., 2003; Sageman, cited by Rotella, 2004; Sprinzak, 1990). An inherent issue with the autobiographical data was the reluctance to disclose psychological problems. Accepted prevalence data for the general population is based on surveys, whereas self disclosure rates are expected be far lower. Therefore, it should also be unsurprising that many actors are also unwilling to disclose such personal information. The lack of disclosure is also highlighted in this quote from a former Irish Republican group member:

"these things are bound to have huge effects, perhaps not spoken about, because that would be… they don't want to talk about it, particularly at the political spectrum of it because it's to… bring it to the level of the ordinary… you did this for a cause, now you're beginning to descend it down into… they did it for a long time, about not cooperating with parole boards… cooperating with their psychological reviews and all that, and they knew that was really dangerous, dangerous for all of their members' self-esteem, and they had a very firm line on that, because it meant that you were ordinary… so talking about that is kinda a sort of betrayal… I am absolutely convinced is very difficult… cos you had to be special, had to be political, with nothing else involved… you were different, and your cause was political… 'don't be trying to make out it was anything else'… if you even tamper with the political side of it, or 'was there a little bit more going on with you son?' d'ya know what I mean?" (Interview 3, 2016).

However, despite the low frequency of disclosure, many actors did describe suicidal ideation, chronic substance abuse, and depressive symptoms, but unless they mentioned an official psychiatric consultation or diagnosis, these symptoms had to be coded as psychological distress. However, despite the lack of disclosure surrounding diagnosed mental disorder, the prevalence of psychological distress within the dataset was far higher than current literature suggests, highlighting the need for valid empirical data to examine current theoretical and opinion based hypotheses.

The initial bivariate analyses highlighted that individuals who reported early life psychological distress are significantly more likely to experience a range of negative stressors, and are significantly less likely to report more positive, protective experiences. However, the results also highlighted that although there are multiple individual factors which may initially imply a cohort of individuals who are more psychologically resilient than others (Ong, et al., 2006; Bonnano, 2004; Born et al., 1997; Dumont & Provost, 1999; Fletcher & Sakar, 2013; Gooding et al., 2011; Herman-Strahl & Peterson, 1996). There is a small subset of terrorist actors within the dataset who underwent negative life experiences, but did not report psychological distress prior to their engagement in terrorism. This was supported by qualitative evidence, which highlighted how some individuals, despite experiencing multiple risk factors, did not report psychological distress.

The qualitative evidence supports the need to move from static interpretations of data. The extracts highlight how different combinations of experiences can impact on an individual's psychological wellbeing. Therefore, further quantitative analyses focused on the interaction of negative and positive experiences over time. Familial relationships appear to be

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an important mediating factor in the experience of psychological distress, as those who did not report distress consistently identified good family relationships despite abuse. The type of abuse also aids in explaining subsequent destructive behaviours. The proximity coefficients demonstrated how across groups, substance misuse and criminal behaviour were more likely to be an outcome of early life negative experiences. And within those who reported psychological distress, there was a cyclical nature of distress and destructive behaviours. The birth of a child appears to be an important mediating factor in the reduction of destructive behaviours for more resilient individuals.

The results of this chapter also imply that group protective factors and social identity may not be sufficient to explain why individuals do not suffer from mental disorder when involved in terrorism. 46.4% of actors reported psychological distress when engaged, however there were very few significant differences across the experiences of connected social identity and buffering from stress. Over half of all individuals expressed high social connections across both leaders and group members, but these distinctions did not differ across those who reported psychological distress and those who did not. The results also highlight that despite these social bonds, the majority of individuals also maintained external relationships, a factor which may inhibit effective identity fusion (Hugenberg & Bodenhausen, 2004; Li et al, 2002). The results also highlighted that 65.9% of the individuals who did not report psychological distress prior to engagement did go on to do so during their terrorist career. This result highlights the importance of more fluid analytical approaches, and the examination of group based 'protective' factors.

These analyses were limited by the inherent complexity of examining both internal and external factors and how their presence and combination influence the onset of psychological distress. Over 200 experiences were coded during the data collection, and every individual studied described a different trajectory, and combination of experiences through both their early life and terrorist involvement, leading to highly convoluted pathways, with very little overlap. This meant that when faced with every possible combination of experiences, identifying important mediating factors was not possible. Given that it was exceptionally difficult to discern meaningful patterns from the initial data; bivariate statistical testing was employed to reduce the amount of experiences examined with the proximity coefficients. This 'cleaning' may have impacted on the validity of the results, as proximity coefficients examine how *all* experiences impact upon each other within a sequence. Removal of behaviours that were not statistically different between groups may have impacted the final statistical outcomes. For example, imprisonment may be closely associated with psychological distress, but as the frequency of imprisonment was not significantly different between groups, it was

not afforded further statistical examination. However, as this chapter examined differences between those who reported psychological distress, and those who did not, it is also possible that the use of initial bivariate statistics may have actually removed all outliers that would have previously been assumed to be important, enhancing the validity of outcomes.

## 5.6    Conclusion

The results from this chapter highlight that the low prevalence of mental disorder within terrorist groups may in fact be due to a lack of disclosure. Prevalence of reported symptoms of psychological distress were much higher than both levels of mental disorder, and current accepted theories of protective group factors. This chapter, much like the previous has presented empirical evidence highlighting the necessity to move towards dynamic interpretations of the complexities of what it is to 'be' a terrorist. The evidence from this chapter has highlighted that *in certain cases*, individual and group resilience may be a protective factor when an individual faces negative experiences. It has also highlighted the similarities in protective factors between individuals who report psychological distress and those who do not. Suggesting that the presence of protective factors is not be sufficient to explain why group-actor terrorists present with a lower than expected prevalence of mental disorder.

Taking these results, the next chapter examines risk factors inherent in terrorist groups, and those individuals face when disengaged from terrorism. The next chapter utilises the same analytical procedures, examining how risk factors combine in time and space, and determining whether it is possible to identify a definitive empirical association between 'being' a terrorist and psychological distress.

# Chapter 6. Do Risk Factors in Terrorist Groups Contribute to Psychopathology?

## 6.1  Introduction

The evidence in chapter five implies that social support may potentially play a role as a protective factor in terrorist group environments. However, the results also highlight that there are a significant proportion of individuals within terrorist groups who do suffer from psychological distress, over different periods. Given the results, it would be prudent to expect that psychological distress may be a result of experiences during engagement. Academic literature concerning the impact of terrorism activities on psychological health remains sparse. Earlier popular and academic opinion that terrorists were psychopaths or mentally disordered (Cooper, 1978; Pearce, 1977), attributed the violent acts to an existing mental disorder. Whereas later sociological theories were more dismissive of any potential role of mental disorder, and lacked consideration of group effects and cognitive readjustment processes, which take place within an individual prior to, and following violent action (Borum, 2004).

Static interpretations of terrorist psychology have led to a lack of consideration of *when* an individual may develop psychological problems. Weatherston and Moran (2003) authored a comprehensive account of mental disorder in former terrorists. Arguing that signs of mental disorder in terrorists may be due to involvement in terror activity and its associated risks:

> "If the presence of mental disorders is detected in a terrorist, it cannot be concluded that the mental disorder was the cause of terrorist activity. In addition, those terrorists who have been subject to detailed psychiatric assessment have been examined under conditions of incarceration, and therefore the circumstances of their arrest and detention in producing mental disorder need to be considered." (p. 702).

Weatherston and Moran go on to describe how lifestyle group conflict are fundamental variables which may contribute to the emergence of mental disorder in individuals who engage in terrorism. Highlighting that exposure to such conditions is not necessarily conducive to developing mental disorder in every case, but these factors do have the potential to contribute to mental disorder in particular individuals.

Literature concerning the immediate impact of roles and attacks on the psychological health of recruits remains sparse. Academic focus lies on suicide terrorism (Iannaccone, 2006; Lester, Yang & Lindsay, 2004; Merari, 2010; Merari, Diamant, et al., 2009; Merari, Fighel, et al., 2009; Speckhard, 2008; Townsend, 2007). Investigations have focused on the intention behind suicide terrorism, examining how mental disorder affects decision making prior to such an act. However there remains a lack of interest regarding other role types, responsibilities within an organisation, and the effects of these factors on a recruit's mental stability.

To date, there remains a limited drive to understand the risk factors for psychopathology in individuals involved within terrorist groups. There is sparse empirical literature concerning how terrorists are affected in their journeys through terrorism, with almost no information on the psychopathological impact of acting within a terrorist setting. This is predominately due to the now accepted consensus that individuals engaged in terrorist groups do not suffer from mental disorder. However, chapters 4 and 5 highlight that a number of individuals engaged within terrorist groups do suffer psychological consequences. The inherent risks during engagement alongside the impact of action in a terrorist setting are intrinsically linked to desistance and deradicalisation. In order to expand the literature and the current level of understanding, this chapter examines risk factors within a terrorist group, why these factors may lead to disengagement, and the challenges and risks individuals face following disengagement

## 6.2    Theory

### 6.2.1    Risk factors within Terrorist Groups

The terrorist lifestyle involves exposure to similar violent and traumatic situations found in military entities. The process of experiencing continuing violence may lead to changes in an actor's cognitive processes, affecting their psychological health. Like military groups, individuals involved in terrorism may also experience psychological responses to their individual actions, as well as group activity (Weatherston & Moran, 2003). Supporting evidence has been shown across autobiographies written by former terrorist actors, who describe how roles and experiences within an organisation subsequently impact upon their psychological health (Adair, 2009; Collins, 1998; Collins, 2002; Moloney, 2010).

Both military and offender literature focus on traumatisation following violent actions toward another. Byrne (2003) explained how self appraisal of events may influence the onset of distress; if an individual carries out an action that violates their underlying belief system,

the individual is more likely to experience trauma. Neuner et al. (2012) verified this; explaining how distress symptoms were more likely to manifest in child soldiers who were abducted and forced to act violently. Turner and Avison (1992) supplemented this, explaining how only experiences perceived by an individual as 'unresolved' (unable "to derive positive meaning for themselves and/or their futures" (Thoits, 1995, p. 58)) are linked to distress symptoms. Intrinsically linked to these theories, there are also studies that purport guilt and shame as an important mediating factor in the development of PTSD symptoms (Crisford, Dare, & Evangeli, 2008; Leskela, Dieperink, & Thuras, 2003). The above evidence, alongside research on individual level resilience covered in chapter five, helps explain why a proportion of individuals who are undergo in the same experiences may not experience distress. Byrne also proposed that differences in offence type (planned vs. unplanned) may influence the onset of PTSD symptoms. Byrne suggests that individuals who see the offence resulting from a loss of control were more susceptible to PTSD symptoms.

Alongside violence and trauma, there are other endemic social factors within terrorist organisations that have the potential to affect the psychological functioning of individual members. Intra-group competition produces conflict, leading to personal animosities at the lowest level, to group fissioning at the highest (as seen in Irish Republican movements) (McCauley & Moskalenko, 2008). The pressure to bow to a seemingly unanimous majority can create intense interpersonal conflict, leading to paranoia, aggression, and delusions (Weatherston & Moran, 2003). Punishment for defectors and those who do not conform to the group rules, whilst enhancing the competitive advantage of the group (Gürerk, Irlenbusch, & Rockenbach, 2006), can severely psychologically impact those who are punished. Internal mistrust within a group also feeds intra-group tensions; relationships become strained, and ideological drift can occur (Borum, 2011).

Alongside the above factors, chapter five examined how individuals who are exposed to the shared reality of terrorism adopt the shared social identity of the group. Commitment to this identity is strengthened through reduction of contact with other social networks (Kruglanski & Fishman, 2009; Rasch, 1979). Social support is enhanced through psychosocial processes, including identity fusion. If an individual within a terrorist group undergoes a process such as identity fusion, which enhances relationships, fosters individual ideologies, propagates extreme behaviours, and buffers from external stressors, why then, do individuals decide to disengage from terrorist groups, and what are the psychological consequences?

### 6.2.2   Why do Terrorists Disengage?

Desistance from terrorism, whether as a collective or an individual has received a moderate amount of attention in the literature. Ross and Gurr (1989) identified both internal and external factors which contribute to collective disengagement. Ross and Gurr listed four factors; pre-emption, deterrence, burnout, and backlash. Each of these factors has the potential for playing a role in disrupting the social identity of the group, and fissioning the internal bonds. Miller (2012) highlights a number of other investigations which also developed typologies for desistance (Crenshaw, 1991; Cronin, 2006, 2009; Jones & Libicki, 2008; United States Institute of Peace, 1999). Miller explained that despite differences in terminology and complexity, each model was concordant that group desistance results from both internal and external influences, and results from multiple factors operating simultaneously.

There is also consensus among academics that individual disengagement from terrorism is facilitated through a variety of mechanisms. Reinares (2011) proposed that disengagement results from structural, organisational, or personal factors. Reinares conducted 35 interviews with former members of Euskadi Ta Askatasuna (ETA), reporting that until the mid-1980s decisions to desist from terror activities spanned from personal perceptions of political changes. Post 1980s however, the overarching reasoning behind desistance was due to internal disagreements concerning leadership. Reinares also highlighted that throughout the timeframe analysed, there were a selection of members that voluntarily left due to 'personal' reasons. Of those interviewed, the majority of former actors who left the organisation citing individual motivations had been incarcerated prior to their desistance. Reinares does not provide further expansion of 'personal reasons', other than mentioning a former female member who was motivated to leave the organisation due to fatigue and "existential crisis" (p. 799). Despite the worth of this investigation, the author appears hesitant to expand on the meaning of 'personal' nature. This might be due to the small sample and the potentially exponential number of personal reasons behind disengagement.

Altier, et al. (forthcoming) do expand on 'personal reasons'. In their statistical analyses of terrorist autobiographies, they include burnout, psychological distress, fear, regret, coping, experience of being a victim, physiological distress, desires to marry, have children, seek education or employment, difficulties in balancing family life, and family and friends convinced the individual to leave. Altier et al. concluded that 'push factors' (specifically disillusionment with tasks, and disagreements with group leaders, other members, and strategies) play a major role in disengagement. Altier et al.'s work is also supported by Horgan (2009), who described psychological and physical influences experienced by actors, and

Bjørgo, (as cited by Mullins, 2010), who discussed push (dissatisfaction with group) and pull (alternative attractions) factors, and classified 'burnout' as a factor affecting disengagement.

### *6.2.2.1 Risks of Disengagement*

The above investigations discuss specific experiences that may affect the underlying protective identity fusion individuals undergo, increasing the likelihood of disengagement from the group. Rabasa, et al. (2010) support this, explaining how the probability of disengagement is inversely related to the degree of commitment to the group. As Swann et al. (2012) highlight, the irrevocability principle suggests that once fusion has occurred, an individual will tend to remain fused, as long as immediate available influences support the fusion. When fusion is not supported- for example following completion of a role (or term of service), group disbandment, the shattering of relational ties (e.g. through betrayal of group principles, causing the death of a comrade), or if an individual feels that the actions of the group contradict its espoused core values or ideology- identity de-fusion may occur. Ebaugh (1988, cited by Horgan, 2009) provides examples of how such 'triggering' factors facilitate disengagement in non-terrorist groups; examining accounts of role change in a variety of individuals including ex-convicts, ex-alcoholics, ex-doctors, and ex-nuns. Rabasa et al. also identified that a 'trigger'[57] was the critical element for trajectory into disengagement. In this trajectory, a 'trigger' precedes push and pull factors, which are then seen to influence a 'turning point' which leads to the act of disengaging. Themes across the above investigations suggest the importance of 'trigger' experiences, symbiotic 'push' and 'pull' factors, and emotions in disengagement decisions.

The exclusivity of identity fusion means that when an individual de-fuses and disengages from a group, their external social alternatives are greatly diminished. Individuals are isolated from other, previously secure social groups. This isolation catches highly fused individuals in a self-perpetuating cycle; without a secure social group to support them, they stay within the group, and maintain the psychosocial connections. Demant, Slootman, Buijs, and Tillie (2008) support this, highlighting that loyalty to comrades can act as a barrier to disengagement. This loyalty helps to maintain fusion and affects an individual's willingness to replace their old belief system with the newly identified schema developed following triggers. Swann et al. (2012) highlight that due to these factors, de-fusion from a group can be

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[57] "Often a traumatic event or emotional crisis; alternatively, may be gradual realization; creates a cognitive opening" (Rabasa et al., 2010. p.12).

highly psychologically damaging, as an individual will need to restructure their personal relationships, and even the meaning behind their own actions.

Gunaratna (2009) explains how following a break from the social identity, an individual is left isolated from the non-terrorist society. This breakdown of relationships within a social environment can act as a detrimental stressor on individuals' cognitive functioning (Broadhead et al., 1983; Kessler, Price, & Wortman, 1985). Breakdowns in social relationships can also remove an important buffer to other stressors. Ystgaard, Tambs, and Dalgard (1999) highlighted that negative life events had a significantly stronger effect on mental health in males when social support was low. Haslam and Reicher (2006) examined the effects of social identity on distress. As the participants sense of shared identity increased, so did the levels of social support, which protected individuals from the adverse effects of stress. However, as the participants' shared identity fragmented, there was a withdrawal of social support, and the participants felt the detrimental effect of stressors. Evans, Middleton, and Gunnell (2004) support this, they statistically examined the effects of social fragmentation on individuals, identifying high psychiatric morbidity in socially fragmented areas. Donald and Dower (2002) examined risk and protective factors for depression, highlighting that social connectedness was the most importance ameliorating factor for depression in males. These investigations highlight the importance in social bonds. Individuals who are no longer engaged within terrorist groups have not only lost their social identity, but they are also often struggle with guilt over their actions from engagement. The next section examines how former terrorists cope with these major stressors.

### 6.2.3   Post-Disengagement

As chapter five highlights, terrorist groups offer social support, and often legitimise their violent acts by viewing themselves as genuine military entities. The above review has also highlighted that following fragmentation of a social identity, individuals are at risk of experiencing psychological distress. It would therefore not be surprising to see symptoms of PTSD and other psychological problems following attempting social reintegration and functioning in a non-military society. Alongside the complex psychological mechanisms, social processes have been shown to play a key role in understanding the occurrence of PTSD and associated symptoms (Muldoon and Lowe, 2012). Muldoon and Lowe (2012) argue that social identity is crucial in understanding the role of group-level factors on individual attitudes, behaviour, and mental health. PTSD should not be viewed as occurring in a vacuum- an interaction between an individual and an event- instead PTSD needs to be viewed as an individual operating in a particular social context following a traumatising event.

Supporting evidence for PTSD as a social phenomenon has been shown across individuals and groups. Hobfall et al. (2006) highlighted how individuals exposed to terrorist violence who had sustained social support were less likely to develop depression or PTSD symptoms. Li et al. (1998) examined distress symptoms in a cohort of adolescents living in an underdeveloped area. Li et al. highlighted that the factors most commonly associated with distress following exposure to violence were 'intrusive thoughts/feelings', 'distraction', and 'lack of belongingness'. 'Lack of belongingness' is particularly pertinent, as it highlights the importance of social support in alleviating distress. However, the 'feeling lonely', 'unloved', and 'not cared about' which all sit within 'lack of belongingness' may also be detrimental to inviting social support. Kaniasty and Norris (2008) highlighted that individuals who have chronic, long standing psychological distress following trauma, are vulnerable to social selection- a lack of social support spanning from a lack of recovery in a socially accepted timeframe, leading to introversion and feelings of detachment. This hypothesis regarding removal of social support is verified by Keane, Scott, Chavoya, Lamparski, and Fairbank (1985), who demonstrated that war veterans with PTSD symptoms, as compared to non-traumatised veterans, suffered from a gradual removal of multiple outlets of social support over time. Solomon and Mikulincer (1990) uncovered a similar phenomenon in Israeli soldiers. Those with more severe PTSD symptoms one year after the 1982 Lebanon war, were more likely to have lower social support at a 12 month follow up. Schützwohl and Maercker (2000) investigated former East German political prisoners. Concluding that PTSD symptoms avoidance and emotional numbing negatively influenced perceived social support. Kotler, Iancu, Efroni, and Amir (2001) compared patients with PTSD, respondents with non-PTSD anxiety disorders, and healthy controls. Patients with PTSD recorded the lowest perceived social support scores. Zerach, Solomon, Horesh, and Ein-Dor (2011) performed a 20-year longitudinal study with military veterans. Veterans who experienced combat were more likely to suffer psychological distress across the time period, as compared to non-combat veterans. Alongside this, combat veterans' post-traumatic stress symptoms in early follow-up were significant predictors of poor family cohesion in later follow-up. Lower family cohesion was also found to significantly impact on later post-traumatic symptoms. This bi-directional relationship highlights the difficulties individuals with post-traumatic symptoms face.

As terrorism literature has retained a static, dichotomous focus, with regards to mental disorders, it is only recent work that is starting to uncover the longstanding psychological consequences of being a member of a terrorist group. This work currently principally investigates veterans of Irish Republican and Unionist groups. McEvoy, Shirlow, and McElrath (2004) reflected on the post-incarceration periods of ex-Republican actors. At least 75% of respondents showed symptoms of PTSD, with almost 60% reporting poor emotional

wellbeing. There was also high reporting of individuals facing great difficulties in re-establishing fractured familial relationships. Jameison, Shirlow, and Grounds (2010) investigated the well-being and social and economic inclusion of former political prisoners in Northern Ireland. This report concluded that 39.9% of respondents met criteria for clinically significant mental health problems, over half reported PTSD symptoms, 45.2% described suicidal ideation since release from prison, 68.8% met criteria for hazardous levels of alcohol consumption, with 53.3% meeting the threshold for alcohol dependence. The respondents did continue to show high levels of resilience, but this was concurrent with significant psychological harm and emotional consequences spanning from the conflict.

The above review highlights the worth of examining psychological distress within individuals engaged in terrorist groups. Chapters 4 and 5 have also shown that it is not enough to discount mental disorder in group-actor terrorists. Selection effects and protective factors, in certain cases, *may* reduce the overall prevalence of diagnosed mental disorder, however, individuals engaged within terrorist groups still suffer from psychological distress. This review has highlighted risk factors at multiple stages in the process of 'being' a terrorist; from activities and roles whilst engaged, to the fracturing of relationships during disengagement, to re-learning how to function in a society they fought to change. To date, there is very little empirical evidence which specifically investigates risks to psychopathology within individuals who have engaged in terrorism. This chapter uses the autobiographical dataset to examine the negative psychological impact of terrorist activities.

## 6.3    Data & Method

This chapter also uses the autobiographical database of actors involved in group-based terrorism.[58] As in chapter five, inferential statistical analyses are utilised, however, in this chapter the analyses focus on how specific experiences are risk factors for psychological distress,[59] examining risk factors when engaged within terrorism, factors which move individuals towards disengagement, and risks that individuals face when disengaged from terrorist activities.

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[58] More detailed information on this dataset is found on page 28.
[59] As defined on page 150, an individual was coded as suffering from psychological distress if they gave insight into their poor mental state. Psychological distress was coded in three spaces; pre-engagement, during engagement, and post-disengagement

## 6.4 Results

Chapter five highlighted the reported prevalence of psychological distress across individuals involved in terrorist groups. Pertinent to this chapter, although there is a prevalence decrease in reported distress following disengagement, this decrease is marginal (45.9% to 41.9%), and there is a significant positive correlation between the two time periods (rho=0.532, p=0.000).

### 6.4.1 Risk Factors within Terrorist Groups

Chi Square and associated Fisher's Exact Tests were run to identify if certain negative experiences are associated with the presence of psychological distress. Table 6.1 highlights the experiences found to be significantly associated with the suffering of psychological distress.

Individuals who reported experiencing psychological distress during engagement within a terrorist group were significantly more likely to also report physiological distress due to their experiences ($X^2(1)=9.630$, p=0.002, OR=5.082), for example insomnia, vomiting, and stomach ulcers, and become physically ill whilst engaged ($X^2(1)=5.128$, p=0.024, OR=2.471). Individuals who experienced psychological distress were also significantly more likely to report guilt over their actions, and those of the group ($X^2(1)=8.006$, p=0.005, OR=4.157), express regret over their actions and those of the group ($X^2(1)=7.723$, p=0.005, OR=3.827), and report that they had trouble coping with their role and actions ($X^2(1)=4.226$, p=0.040, OR=3.438). Individuals who experienced psychological distress were also significantly more likely to report having problems living a clandestine lifestyle ($X^2(1)=11.211$, p=0.001, OR=4.616), and report that they were 'burnt out' due to their experiences and lifestyle ($X^2(1)=11.947$, p=0.001, odds=4.243). Despite these differences between individuals, there were other stressful experiences that yielded no significant differences. There were no differences found between psychological distress and undertaking a violent role, being a victim of violence, being disrespected, being incarcerated, being abused whilst incarcerated, the death of close family or friends, substance abuse, or satisfaction with their role within the group.

**Table 6.1 Significant Associations between Stressors and Psychological Distress**

| Experience | Frequency Psychological Distress N=50 | Frequency No Psychological Distress N=59 |
|---|---|---|
| Physiological Distress | **32.0%*** | 8.5% |
| Guilt over Actions and Group Actions | **32.0%** | 10.2% |
| Regret for Actions and Group Actions | **34.0%** | 11.9% |
| Trouble Coping with Role and Actions | **20.0%*** | 6.8% |

| | | |
|---|---|---|
| Trouble with a Clandestine Lifestyle | **42.0%\*\*\*** | 13.6% |
| Became Physically Ill whilst Engaged | **50.0%\*** | 28.8% |
| Burnout | **52.0%\*\*\*** | 20.3% |

**NB: \*=p<0.05, \*\*=p<0.01, \*\*\*=p<0.005**

These results highlight the diversity of experiences associated with psychological distress during engagement. Qualitative autobiographical evidence also highlights the complexity of attribution of distress. For example, Arno Michaels (2010) described his second suicide attempt, following the birth of his daughter, in detail.

"I wish I could say that looking into the magnificent blue eyes of my newborn daughter set me straight in an instant, but the truth is that I returned to my sophomoric drunken brawling within a matter of days… Bursting into the house with skinned knuckles and a proper testosterone buzz to go with the booze, my brother and I headed for the fridge to refresh our besieged memories as to whether or not there was any beer left. Before we could find out, an extremely irritated new mother grabbed me by the arm and led me upstairs for a sound scolding. After a solid 30 minutes of expounding upon my worthlessness and utter failure as a father it was clear that there was nothing I could say in my defense. Rather than concede to the very valid and reasonable argument that I was a dad now and I shouldn't be beating people up for kicks, I, in my inebriated wisdom, grabbed my EK combat dagger from the nightstand and challenged, "is this what you want?!" as I damn near took my left hand off with it." (Michaels, 2010, p. 94-95.

Whereas the suicide attempts Mac Maharaj made were drawn from an entirely different reasoning:

"About a week or more into my detention and torture, I became afraid that I might break and reveal the names of the whole network of people with whom I had contact… I was becoming afraid that I would break down. I would rather have died than betray the movement. I collected cotton threads and pieces of wire in a desperate attempt to equip myself with some way of escaping, but failing that, I thought the only way out was suicide." (O'Malley, 2007, p. 126).

Max Hoelz also attempted suicide in prison, but this followed longstanding deprivation and isolation.

"I had never experienced the same kind of depression as I did during these first nights of my life-sentence." (p. 194) The bad effects of prison life became apparent in my

case in a very few weeks. The lack of fresh air was terrible. I grew so weak that I nearly fainted every time I tied my shoe strings. Gradually I began to dread the walk in the courtyard, because it was so exhausting. I always had a headache when I got back to the cell. I felt as though my head were being screwed together by force" (p. 200) "This night in the torture chamber of the Münster prison was the worst night of my life. Something broke in me." (p. 202) "On the fourth day I lost all hope of relief. My resistance was completely broken. I resolved to sever an artery the next night, as I feared I would go out of my mind… The result of this terrible experience was that I suffered a severe nervous breakdown. My head ached so terribly that I thought I should go out of my mind, and I began to weep at the slightest provocation. I was in such a state that I attempted to hang myself in my cell" (Hoelz, 1930. p. 203-204).

Away from suicidal ideation, there was evidence of multiple reasons for distress, from loneliness (Yousef, 2010), torture (Dingake, 1987), familial death (Daumantas, 1975; Mandela, 1995), reflections on violent actions (Hasselbach, 1996), and a loss of belief in ideology (Collins, 1998). Multiple accounts provided insight into the psychological and physiological toll of group activities.

"Battle fatigue was real. Sometimes it made people crazy, and sometimes just careless… The previous Friday, Abu Suhail had gone crazy. During their mission, the group had to cross a dangerous river. Three of the Tajiks had drowned. As soon as it happened, Abu Suhail went mad and still hadn't recovered… I wasn't entirely surprised about Abu Suhail. I remembered how intensely he had cared for us during training. He loved us all, and wanted us to succeed. I could imagine how he must have felt when those Tajiks died, how much pain it would have caused him. I could see that it would be enough to drive him insane". (Nasiri, 2006, p. 173-174).

"My legs and hands rattled. The knot in my stomach wanted out. I ran to the bathroom and dry retched into the sink. I splashed water over my face. It felt hot. I rubbed my eyes and thought hard. That lump of rail travelled a quarter of a mile. A child could have been killed because of me. Because I fucked up the mix. What was I thinking?" (Fulton, 2008, p. 103).

"Then I saw an image that has been with me every time I have closed my eyes since that moment. As blood dripped down his face, his eyes made contact with mine. The instant I pulled the gun away from him he knew that he was dead. I was actually staring at death itself. I don't think that words can adequately describe the look in his eyes;

he was already dead… I think his soul was already gone before I almost unconsciously depressed the trigger of the automatic pistol. The bullets entered up his neck, then rose up the side of his head as the gun reared up from the burst of automatic fire. I watched in what seemed like slow motion as the window behind him first turned red from the spray of blood and then shattered. His head rocked back and came to rest at an odd angle, and his body slumped against the driver's door. My ears rang and the smell of copper and gunpowder filled my nostrils. Then, except for the ringing in my ears, everything was silent" (Collins, 2002, p. 129-130).

Chapter five investigated how intense social bonds within groups may prevent from psychological distress, however extracts from Susan Stern (1975), and Omar Cabezas (1985) highlight how actions from groups intended to enhance social bonds sometimes have a counter-productive psychological effect.

"We shut ourselves away from all the people who had been flocking to the Weathermen… We were locked in criticism for five days straight, taking time out only to sleep… After endless hours of arguing, we would all get very tired and depressed. There were always so many questions and we had so few answers." (Stern, 1975, p. 161-162).

"That feeling of loneliness is indescribable… That isolation, that loneliness, is the worst, the hardest thing; it's what hits you the hardest… Nothing was more terrible, for me anyway, than the infinite loneliness of our lives. And the worst of it was, we didn't know how long we would have to go on like that." (Cabezas, 1985, p. 83-84).

The range of experiences and attribution of distress highlights the need to examine how different experiences affect individuals over time. Tables 6.2 and 6.3 present the proximity coefficients for the above significant behaviours for individuals who did and did not suffer from psychological distress when engaged. Overall Tables 6.2 and 6.3 highlight the importance of the significant behaviours from Table 6.1 in the manifestation of psychological distress. Table 6.2 shows that for individuals who did not report suffering from psychological distress, the majority of experiences did not occur within a sequence. This is particularly true of burnout, which is not associated with any other behaviour. Within this cohort of individuals, guilt immediately preceded trouble coping with actions, which was then immediately followed by physiological distress. This combination of experiences shows how, even when individuals did not disclose psychological distress, they are negatively impacted by their journeys through terrorism. This is further supported by the evidence which shows that physical illness occurred

following a range of specific stressors, physiological distress, guilt over actions, and problems with living a clandestine lifestyle. This behaviour string suggests that in some cases, physical illness *may* be a physical manifestation of deep seated psychological distress.

Table 6.3 highlights how multiple stressors have very similar, high associations with psychological distress. Psychological distress did precede stressors, but it was more closely associated with following all stressors. Psychological distress was also more closely associated with following all other stressors than physiological distress. Burnout was more likely to be a consequence of stressors, and in every case, immediately followed regret of actions. However, trouble coping also immediately followed regret. This result highlights the complexity of behaviour strings within the cohort.

Further inferential analyses were conducted to determine whether there were between group differences in the proximity of specific experiences. Given the low prevalence of many reported stressors within the non-psychological distress cohort, only one experience contingency was identified as significant results. The proximity between expressing guilt, and trouble coping was significantly closer within individuals who did not report psychological distress F=22.260, p=0.027.

These results aid confirmation of the conclusions of chapter five. Risk factors, as opposed to protective factors, may be more of use in explaining why individuals suffer from psychological issues during engagement. The next section seeks to understand how risk factors may play a role in disengagement, and post-disengagement for individuals who suffer from psychological distress.

**Table 6.2 Coefficient Matrix for Experiences of Individuals with no Recorded Psychological Distress**

| | Physiological Distress | Guilt over Actions and Group Actions | Regret for Actions and Group Actions | Trouble Coping with Role and Actions | Trouble with Clandestine Lifestyle | Became Physically Ill | Burnout |
|---|---|---|---|---|---|---|---|
| Physiological Distress | 0.739 | 0.952 | ---- | 0.871 | ---- | 0.159 | ---- |
| Guilt over Actions and Group Actions | 0.968 | ---- | 1 | 1 | 0.955 | 0.387 | ---- |
| Regret for Actions and Group Actions | ---- | ---- | ---- | ---- | 1 | ---- | ---- |
| Trouble Coping with Role and Actions | 1 | ---- | ---- | ---- | ---- | ---- | ---- |
| Trouble with a Clandestine Lifestyle | ---- | ---- | ---- | ---- | ---- | 0.889 | ---- |
| Became Physically Ill | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| Burnout | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

**NB ---- = No coefficient generated as behaviour never occurred prior**

**Table 6.3 Coefficient Matrix for Experiences of Individuals with Recorded Psychological Distress**

| | Psychological Distress | Physiological Distress | Guilt over Actions and Group Actions | Regret for Actions and Group Actions | Trouble Coping with Role and Actions | Trouble with Clandestine Lifestyle | Became Physically Ill | Burnout |
|---|---|---|---|---|---|---|---|---|
| Psychological Distress | 0.329 | 0.322 | 0.611 | 0.311 | 0.326 | 0.180 | 0.397 | 0.456 |
| Physiological Distress | 0.708 | 0.367 | 0.515 | 0.343 | ---- | 0.101 | 0.182 | 0.239 |
| Guilt over Actions and Group Actions | 0.660 | 0.602 | 0.332 | 0.728 | 0.974 | 0.224 | 0.543 | 0.958 |
| Regret for Actions and Group Actions | 0.601 | 0.370 | 0.582 | ---- | 1 | 0.247 | 0.473 | 1 |
| Trouble Coping with Role and Actions | 0.740 | 0.549 | 0.434 | ---- | ---- | 0.250 | 0.850 | ---- |
| Trouble with a Clandestine Lifestyle | 0.773 | 0.516 | 0.607 | 0.423 | 0.497 | 0.051 | 0.752 | ---- |
| Became Physically Ill | 0.838 | 0.103 | 0.491 | 0.642 | 0.248 | 0.393 | 0.454 | 0.896 |
| Burnout | 0.711 | 0.458 | ---- | ---- | ---- | ---- | ---- | ---- |

**NB ---- = No coefficient generated as behaviour never occurred prior**

### 6.4.2   Disengagement

Chi square and associated Fisher's Exact Tests were conducted to determine associations between psychological distress and risk factors at disengagement and in the post disengagement period.  Table 6.4 shows significant associations.

The results highlighted a number of significant associations with psychological distress and reasoning behind disengagement. Individuals with psychological distress were more likely to fear harm from group members ($X^2(1)=7.595$, $p=0.006$, $OR=4.831$), and claim that their tasks and roles were too risky ($X^2(1)=3.850$, $p=0.050$, $OR=2.786$). A large difference between individuals was found in the role of burnout at disengagement ($X^2(1)=6.487$, $p=0.011$, $OR=4.556$), and religious conversion (Fisher's Exact Test, $p=0.043$) only played a role in disengagement within individuals who reported psychological distress. There were no other significant differences identified between the remaining variables concerning reasoning behind disengagement. Particularly pertinent, despite differences in reasoning, there was no difference between psychological distress a desire to disengage (46.0% psychological distress, 44.1% non-psychological distress, $X^2(1)=0.041$, $p=0.840$), highlighting that although both groups have similar levels of desire to disengage from the group, reasoning for individuals with and without psychological distress is far more complex and varied that bivariate statistics can highlight.

**Table 6.4 Significant Associations between Stressors and Psychological Distress**

| Experience of Distress<br><br>Disengagement | Frequency Psychological Distress N=36 | Frequency No Psychological Distress N=50 |
|---|---|---|
| Fear Harm from Group | **26.0%**\*\* | 6.8% |
| Religious Conversion | **10.3%**\* | 0.0% |
| Tasks too Risky | **33.3%**\* | 15.2% |
| Burnout | **30.8%**\* | 8.9% |
| Post-Disengagement | | |
| Victim of Violence | **72.2%**\* | 50.0% |
| Expressed Regret | **47.2%**\*\*\* | 10.0% |
| Trouble Coping | **27.8%**\* | 8.0% |
| Fear Harm from Group | **36.1%**\*\*\* | 8.0% |
| Disillusionment with Group Strategy | **71.4%**\* | 44.9% |
| Guilt | **40.0%**\* | 18.4% |
| Burnout | **61.1%**\*\*\* | 22.0% |
| Politics | 14.3% | **38.0%**\* |
| Felt Judged | **44.4%**\*\* | 18.0% |
| Psychological Support | **13.9%**\* | 0.0% |

NB: \*=p<0.05, \*\*=p<0.01, \*\*\*=p<0.005

The below extracts highlight the complex, multifaceted nature of reasoning behind disengagement.

"About six years in, I really had… what I think was the first catalyst for a change of heart back to who I was prior to fourteen… When I was nineteen, I had my first child, I got married and had my first child. And while everything in the movement taught me to protect that child and include them in the movement… that was really the furthest thing from my mind, cos I held love in my arms for the first time in those six years… and I reconnected with the innocence I lost at fourteen years old… I stayed in the movement, because I didn't really have anything else besides this family now that I had… I had alienated my parents, I didn't have a good relationship with them, even though they tried… I started to meet these people who I had alienated from my circle… at first I was stand-offish, I didn't want to get personal… but eventually the conversations started to get more personal… what it turned out to be was me building very strong friendships with these people, and being very, very conflicted about it, because on one side I had… my family, and I was their leader… here I was breaking my own rules, and talking to these people on a personal level."(Interview 1, 2016).

"The longer it went on, the more they all got exasperated… the more real life intruded… normal life overwhelmed to a large extent… because you couldn't keep control of it… the sheer weight of the psychological, the mental factors, the domestic… just came into play." (Interview 3, 2016).

"There was certainly a strong feeling of dissatisfaction with the Provisional campaign – but also one of hopelessness, for they realised that the Provisionals were still the best hope the Catholics of Derry had for improving their position. There was also, I heard, considerable feuding between families in Derry, with occasional shoot-outs; which was perhaps inevitable, in their claustrophobic situation. I went back to the cold house I was staying at feeling very low; Derry, romantic enclave of freedom within the Six Counties, was a totally miserable and depressing place." (McGuire, 1973, p. 98).

"After a round-the-world tour of media arrangements, I thought seriously of tendering my resignation to the PLO and returning to journalism, the love of which I never lost. I had begun to wonder whether my continuous calls for reforms would always fall on deaf ears. I did not want to be like those senior PLO officials who had been infected by the disease of silence which made them put their positions and personal interests above their principles. I had also started to have contradictory feelings about Abu

Ammar. My love and friendship for him were undimmed, but at the same time I could not tolerate some of the things he was doing as a leader who held the fate of an entire nation in his hands." (Al-Hout, Makdisi, & Asser, 2011, p. 241).

"I didn't understand these feelings of fear and helplessness that were threatening to overcome me. During my first trip to Chechnya I'd occasionally experienced the terrifying moments that come with any war, but I generally felt strong and confident; we were always the hunters, not the hunted. But this time was different. I don't know if it was because an entire army had surrounded us, or if this was the natural result of not having the proper faith. The whole concept of jihad was based on faith. Without faith there was no jihad. Since the first war in Chechnya my faith had definitely declined, for reasons that I still don't understand. I'd still come back to Chechnya, because it was the right thing to do, but I couldn't help thinking that maybe this time I was on my own." (Collins, 2002, p. 232).

Susan Stern (1970) described both individual and collective experiences of pathways towards disengagement:

"The dream had turned into a nightmare… It was the loneliest, most morbid time of my life. I literally lost the will to live. Every day I was criticized for something, and I smiled vaguely and agreed. And believe me, I agreed. I had been convinced, over a period of months, that I was the most racist anti-Communist, the worst sexual deviate, the most blighted egotistical wretch, the greatest anti-Women's Liberationist, the most exulting warmonger, and the weakest, most selfish, least desirable person that had ever lived… People were told, as we had just been told with Justesen, not to touch me, not to talk to me. I was in the caste of the untouchables, and no one recognized my existence, let alone my needs. I tottered on the edge of total despair and loaded myself with downers, until I couldn't walk, couldn't think". (Stern, 1970, p. 215).

"We were tired. The revolution seemed old. We were hungry. We were about to kick out, and it wasn't the jams. The weight of the underground loomed over us with devastating certainty. There was no escape. No heroism, no splendour, no glorious revolution, no marching bands and banners. We were just on the verge of learning that revolution is more than hard, and greater than human; that it is a lifelong experience and a lifelong burden; that its rewards are rarely visited to the recipient like any other reward, but only received in the vague and out-of-reach concept of history. We were just beginning to recognize that revolution is the one unchanging truth, the one real

guiding staff, but that accepting its cloak meant giving oneself up entirely. The pain and heaviness of that knowledge, just barely discernible, was breaking us." (Stern, 1970, p. 214).

Each of these extracts presented not only a different reason for disengagement, but described the culmination of multiple experiences which impacted on their decision to disengage. This is also true of experiences in the post-disengagement period. The next section explores negative experiences reported post-disengagement, before examining the proximity coefficients both of risks for disengagement and post-disengagement to identify associations between disengagement decisions and post-disengagement psychological distress.

### 6.4.3 Post Disengagement

The earlier literature review highlighted that post-traumatic stress symptoms are the result of behaviours and experiences. Therefore, to examined psychological distress in the post-disengagement period, the analyses focused on individuals' experiences when engaged as well as when disengaged. Table 6.4 also presents the resulting significant associations between psychological distress reported in the post-disengagement period, and experiences. Individuals who experienced psychological distress in the post disengagement period were significantly more likely to be a victim of violence when engaged in terrorism ($X^2(1)=4.283$, p=0.039, OR=2.600), express regret for their actions when engaged ($X^2(1)=15.233$, p=0.000, OR=8.053), and have trouble coping with their actions when engaged ($X^2(1)=6.007$, p=0.014, OR=4.423). These concerns carried into the post-disengagement period, as individuals who suffered psychological distress following disengagement were significantly more likely to fear being a victim of harm from their former group ($X^2(1)=10.429$, p=0.001, OR=6.500)[60], feel guilt for their roles in attacks ($X^2(1)=4.805$, p=0.028, OR=2.963), and report burnout ($X^2(1)=13.539$, p=0.000, OR=5.571). These experiences had longstanding effects. Individuals were significantly more likely to report feeling judged for their previous activities ($X^2(1)=7.099$, p=0.008, OR=3.644), and were also significantly more likely to receive psychological help (Fisher's Exact Test, p=0.011). Individuals who experienced psychological distress in the post-disengagement period were also more disconnected from their previous social identity. This is highlighted in significant associations with disillusionment with the strategy of their former group ($X^2(1)=5.831$, p=0.016, OR=3.068), that such individuals were significantly less likely to move into legal politics ($X^2(1)=5.714$, p=0.017, OR=0.272), and

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[60] This is contrary to non-significant associations found in fearing becoming a victim from external sources $X^2(1)=0.066$, p=0.797, suggesting previous victimisation may have been group based.

they were less likely[61] to report that they felt their past behaviour was morally justifiable $(X^2(1)=3.441, p=0.064, OR=0.821)$.

The above results provide evidence for a potential link between engagement within terrorism and post-traumatic stress symptoms. This is further supported by autobiographical evidence, which highlights the complex nature of psychological distress running up to, and following disengagement from terrorist groups. Aukai Collins (2002), who describes his struggle to readjust following disengagement:

"I was on the edge, tormented by what I'd seen in Chechnya. I would cry for no apparent reason. Whenever I dozed off the noises on the street would startle me awake, and I would crouch on the floor waiting for the bombs to hit. I was wearing the same clothes that I had been in for weeks and must have looked like some kind of madman... This time it was bad. I really didn't want to be home, and I couldn't get Chechnya out of my mind... I became frustrated, and when my frustration turned to anger I began to have problems with everyone. Chechnya began to consume me. I couldn't see what was happening to my relationship with Sumaya... Everything went to hell. A couple of days after Sumaya left, one of the bodyguards I was working with- a friend- was killed. It wasn't a big deal compared to what I had already been through, but it was the last thing that I could deal with then." (Collins, 2002, p. 245-246).

One individual, formerly involved in a terrorist group also gave his account of his experiences post-disengagement.

"My wife and my children left me... I didn't leave fast enough... I wasn't giving them the attention that they needed. I didn't have a good relationship with my parents anymore... and not only was I this lost, solo, soul, I was still branded a racist by everybody. So not only did I have to start over at ground zero to rebuild my life, I kind of had to like dig my way out of a hole... It was impossibly difficult... because, there was no support network... I couldn't talk to anybody about it... I tried to outrun it, so I didn't talk about it... I thought 'OK, well if I just never talk about my past, I could just start a new life, and that was the worst possible thing I could have done, because I was so depressed for five years, even though my heart had changed, and I was doing good things... I hadn't forgiven myself, I hadn't repaired myself. So I suffered a depression where I got into drugs and alcohol, and I contemplated taking my life... It

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[61] Results approached significance.

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was just very difficult, and I had a hard time just functioning, finding a job." (Interview 1, 2016)

Autobiographical evidence which supports the statistically significant findings that individuals with psychological distress were more likely to regret their actions, be disillusioned with the group strategy, and feel judged for their past behaviour is highlighted below.

"You're also coming out to a situation where you hadn't won. And that's very, very important I think, because when you get the creation of the Irish free state… the leaders of the Irish free state were immediately had to form a new army, a new police service, etc, so automatically there are jobs for ten thousand guys. We haven't got that, so… no matter how you might pretend you're coping at all sorts of levels, perhaps no job, unless you're one of the lucky ones to get the couple of hundred jobs that are going around… They end up huddling together in the felon's club, and pubs and stuff like that's what happens… turn to something to make them feel better… if you were coming out of jail to an area that… had a sense of victory, a sense of achievement it would be much easier… you come out, you're married, your wife kind of knows you lost… and you went through all this, and she's been coping with the family… she's done all that for no reason either… and then you throw in the whole domestic matrimonial scene, with kids perhaps out of control… and things you thought would never happen in your life and… it's all there, and it's going to go on". (Interview 3, 2016).

"Total depression overcame me, overwhelming my private and public existence. I began to delve into the past and compare it with the present, looking at the times when we made mistakes and when we had done the right thing. I began to wonder whether this decline and fall would ever end… I sank deeper into this slough of desperation. I began to feel I was sinking into quicksand, or that the abyss I had fallen into had no bottom or floor… What had pushed me into the abyss and sowed doubt in my soul had been my realization of the succession of events that we had lived through and the defeats that we had suffered. My nerves were shattered. I was tired. I despaired. I was weary… (Al-Hout, 2011. p. 300-302).

These extract highlights how following disengagement and reintegration, individuals may feel that they regret their actions because they re-enter an unchanged political environment, where their group was not successful in their aims, and upon reflection they wonder if the sacrifice and negative experiences were worth it. Taken together, the qualitative

evidence highlights the complex nature of experiences which impact upon psychological wellbeing, further highlighting the need to examine the interaction of experiences across disengagement and post disengagement. Tables 6.5 and 6.6 show proximity coefficients for the significant experiences within Table 6.4.

Although the initial bivariate analyses highlighted a moderate frequency of experiences within individuals who did not report psychological distress, the lack of association across proximity coefficients demonstrate that these experiences may have occurred in isolated circumstances. Only victimisation was consistently associated with disengagement and post disengagement experiences. Within the cohort, moving into legal politics always followed experiences, and was most likely to follow disillusionment with group strategy. In every case, guilt immediately preceded regret and problems coping, but was also closely associated toward a move to politics. Alongside this, feeling judged immediately led to a religious conversion. These results highlight the coping strategies that individuals may employ to help protect from later onset of psychological distress.

The results for individuals who did report psychological distress are far more complex. The results highlight the cyclical nature of psychological distress and guilt, as both were reported both before and after the other experiences. In this cohort, disillusionment with the group strategy was more associated with psychological support than politics, highlighting different coping mechanisms of these individuals. The reporting of feeling judged always followed other negative experiences, and moves into legal politics were also highly likely to follow negative experiences. In this group, feeling judged never preceded religious conversion. Similar to individuals who did not report psychological distress, a move to politics was closely associated with regret and guilt, but in this group, the experience most closely linked to a political career was expression that their tasks within the terrorist group were 'too risky', despite a lesser association between victimisation and riskiness than identified in those who did not report distress.

Given the low frequency of many reported experiences within the non-psychological distress cohort, only one significant difference in association between groups was found. The proximity between guilt and trouble coping was significantly closer within individuals who did not report psychological distress F=22.260, p=0.02. One other association between experiences approached significance. The proximity between victimisation, and disillusionment with group strategy was closer within individuals who did not report psychological distress F=3.7504, p=0.09.

**Table 6.5 Coefficient Matrix for Experiences of Individuals with No Recorded Psychological Distress**

| | Fear Harm from Group | Religious Conversion | Tasks too Risky | Burnout[62] | Victim of Violence | Regret | Trouble Coping | Disillusion with Group Strategy | Guilt | Politics | Felt Judged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fear Harm from Group | ---- | ---- | ---- | ---- | 0.242 | ---- | ---- | 0.966 | ---- | ---- | 0.817 |
| Religious Conversion | ---- | ---- | ---- | ---- | 0.070 | ---- | ---- | ---- | ---- | ---- | ---- |
| Tasks too Risky | ---- | ---- | ---- | 0.960 | 0.875 | 0.727 | ---- | ---- | 0.773 | 0.545 | ---- |
| Burnout | ---- | ---- | ---- | ---- | 0.920 | ---- | ---- | ---- | ---- | ---- | ---- |
| Victim of Violence | 0.652 | 0.493 | 0.683 | 0.640 | 0.237 | 0.432 | 0.944 | 0.792 | 0.868 | 0.630 | 0.444 |
| Expressed Regret | 0.897 | 0.621 | ---- | ---- | 0.500 | ---- | ---- | 0.828 | ---- | 0.864 | ---- |
| Trouble Coping | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 0.778 | ---- |
| Disillusionment with Group Strategy | ---- | 0.828 | ---- | ---- | 0.935 | ---- | ---- | ---- | ---- | 0.889 | 0.887 |
| Guilt | ---- | ---- | ---- | ---- | ---- | 1 | 1 | ---- | ---- | 0.770 | ---- |
| Involved in Politics | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| Felt Judged | ---- | 1 | ---- | ---- | 0.240 | ---- | ---- | ---- | ---- | ---- | ---- |

**NB ---- = No coefficient generated as behaviour never occurred prior**

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[62] Burnout measured pre and post engagement

**Table 6.6 Coefficient Matrix for Experiences of Individuals with Recorded Psychological Distress**

| | Psycho-logical Distress | Fear Harm from Group | Religious Conversion | Tasks too Risky | Burn out | Victim of Violence | Regret | Trouble Coping | Disillusion with Group Strategy | Guilt | Politics | Felt Judged | Psychol-ogical Support |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Psychological Distress | 0.329 | 0.728 | 0.581 | 0.568 | 0.406 | 0.401 | 0.311 | 0.326 | 0.712 | 0.611 | 0.626 | 0.461 | 0.862 |
| Fear Harm from Group | 0.517 | 0.071 | 0.434 | 0.936 | 0.394 | 0.286 | ---- | ---- | 0.489 | 0.353 | 0.647 | 0.690 | 0.813 |
| Religious Conversion | 0.357 | 0.362 | ---- | 0.447 | ---- | 0.152 | 0.329 | ---- | ---- | 0.228 | ---- | 0490 | 0.426 |
| Tasks too Risky | 0.438 | ---- | ---- | ---- | 0.932 | 0.344 | ---- | ---- | 0.482 | 0.660 | 0.793 | 0.671 | 0.842 |
| Burnout | 0.711 | 0.417 | ---- | ---- | ---- | ---- | ---- | ---- | 0.833 | ---- | ---- | 0.667 | ---- |
| Victim of Violence | 0.714 | 0.484 | 0.444 | 0.339 | 0.663 | 0.357 | 0.549 | 0.334 | 0.414 | 0.509 | 0.479 | 0.464 | 0.332 |
| Regret | 0.601 | 0.582 | 0.218 | 0.461 | 1 | 0.411 | ---- | 1 | 0.716 | 0.582 | 0.836 | 0.471 | 0.465 |
| Trouble Coping | 0.740 | 0.410 | 0.462 | 0.709 | ---- | 0.619 | ---- | ---- | 0.589 | 0.434 | ---- | 0.303 | 0.263 |
| Disillusionment with Group Strategy | 0.457 | 0.456 | 0.811 | 0.245 | ---- | 0.362 | 0.088 | ---- | 0.097 | 0.578 | 0.766 | 0.674 | 0.872 |
| Guilt | 0.660 | 0.332 | 0.432 | 0.806 | 0.948 | 0.547 | 0.728 | 0.974 | 0.650 | 0.332 | 0.709 | 0.479 | 0.909 |
| Politics | 0.098 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 0.333 | ---- |
| Felt Judged | 0.369 | ---- | ---- | --- | ---- | ---- | ---- | ---- | 0.189 | 0.125 | 0.633 | ---- | 0.318 |
| Psychological Support | 0.123 | ---- | 0.472 | ---- | ---- | 0.140 | ---- | ---- | ---- | ---- | ---- | 0.491 | ---- |

**NB ---- = No coefficient generated as behaviour never occurred prior**

## 6.5  Discussion

Chapter five concluded that in certain cases, following specific experiences, individual resilience and social bonds *may* act as buffers to protect individuals from experiencing psychological distress. This chapter has examined an alternate theory; risk factors within terrorist groups increase the likelihood of developing mental health issues. There is a consensus across current literature that decisions to disengage vary hugely across actors, with multiple factors influencing the final decision to disengage. However, this chapter has been the first empirical work to seek to identify the association between these factors, and how journeys through terrorism affect actors' psychological wellbeing. This chapter supplemented the results of chapter five, as it has empirically identified that risk factors play a role in the psychological consequences of being involved in a terrorist organisation. Individuals who reported experiencing psychological distress were significantly more likely to report experiencing a wide range of stressors, and it is the combination of these stressors which have long term consequences for an individual's psychological wellbeing.

The prevalence data provide evidence that risk factors and negative experiences during engagement have an effect on actors' psychological wellbeing. The prevalence of psychological distress doubles between pre-engagement and engagement, and then decreases following disengagement. These results suggest that the experiences of being engaged in a terrorist group negatively impact on the mental health of a subset of individuals. That the prevalence of psychological distress did not decrease to the baseline level reported prior to engagement, implies that the negative experiences during engagement may have longstanding effects, impacting on multiple aspects of an individual's life, supporting Weatherston and Moran (2003). Taking the prevalence data as a starting point, initial inferential analyses examined which risk factors and negative experiences are more likely to be reported within the cohort of individuals who suffer psychological distress.

The initial bivariate analyses indicated that it is not the experience of negative events which impacts on psychological wellbeing, but the actor's interpretation of these events. No significant associations were identified between the actor's experiences of violence, victimisation, disrespect, imprisonment, abuse, the loss of a close family member or friend, or substance abuse. However, the differences lay in how the individual coped with the lifestyle. Individuals who reported psychological distress were significantly more likely to report guilt, regret, problems coping with their actions, problems with their lifestyle, and burnout. These initial results lend support to the initial evidence within chapter five, that within more resilient individuals, negative experiences do not produce the same levels of distress. However, that

twice the number of individuals reported psychological distress during engagement compared to early life experiences suggests other important factors may mediate distress. This difference in prevalence may be explained by identity fusion; individuals who reported distress were less likely to have undergone identity fusion, as they were significantly more likely to struggle with the actions of the group (Byrne, 2003; Turner and Avison, 1992).

The proximity coefficients generated for risk factors within terrorist engagement highlight that individuals who did not report psychological distress, were not only less likely to report negative experiences and emotions than individuals who did report distress, but these experiences were also more likely to occur in isolation. For individuals who did report distress, all experiences impacted on psychological wellbeing. The reporting of distress was more likely to follow negative experiences, but the results also demonstrated the culmination of multiple experiences and the cyclical nature of negative experiences and distress. The results indicated that burnout was a result of multiple negative experiences and distress, and this is further validated in the bivariate analyses which investigated reasoning behind disengagement. Burnout as a reason for disengagement had the largest frequency disparity between actors.

The qualitative evidence also highlights the role of burnout in disengagement, and also alludes to the role of multiple factors impacting on an individual, and how these factors compound to increase a desire to disengage. That no significant differences were found between actors in their desire to disengage from terrorist activities, and the low number of significant differences in reasoning for disengagement, highlights the difficulties in analyses of individual decision making following unique journeys and experiences. The proximity coefficients for these experiences indicate that within the cohort of individuals who did not report psychological distress, the only association identified between experiences highlighted that within this cohort, feeling that a task was too risky almost always preceded burnout. Also of note, though individuals within this cohort were not more likely (than those who reported distress) to express that being a victim whilst engaged was a reason behind disengagement, this experience always preceded the eventual reason, and was more closely associated than the cohort who did report distress. Within individuals who did report psychological distress, much like the negative experiences during engagement, reasoning for disengagement was far more complex. Fear from group harm preceded all other reasoning, however, contrary to the reasoning of (Guanaratna, 2009; Swann et al., 2012; Ystgaard et al., 1999), psychological distress was more likely to be reported prior to expression of fear of group harm. This may be because individuals, due to their experiences during engagement (such as guilt, regret, and trouble coping with the actions of themselves and the group) have already broken from their

social identity, and fear of harm was a result of this breakdown. Again, within this cohort, burnout was more likely to be the result of the culmination of multiple reasons and experiences.

The examination of differences between those who reported psychological distress in the post-disengagement space and those who did not did not lend support to the work of Haslam and Reicher (2006), Evans et al. (2004) or Donald and Dower (2002), as there were no significant differences identified in levels of social support post-disengagement. In fact, individuals who reported distress were more likely (though not significantly) to have access to both material (52.8% compared to 34.0%) and emotional (50% compared to 38%) support in the post-disengagement period. However, without further analyses, these results are unable to follow the work of Kaniasty and Norris (2008), Keane et al. (1985), and Solomon and Miller (1990), and identify when social support occurred and was removed, and the resulting impact on wellbeing. The results do lend support to the recent investigations within former Irish Republican and Unionist groups (McEvoy et al., 2004; Jameison et al., 2010). Individuals who reported distress were significantly more likely to also express that they had guilt, regrets, and trouble coping with their actions, all of which were more likely to precede psychological distress. Guilt was a more consistent factor within negative post-disengagement experiences, and more often preceded regret and problems coping, supporting Crisford et al. (2008), Leskela et al. (2003).

Much like the results of chapter five, these conclusions are hampered by the complexity of the quantitative data. A second limitation that has been taken into consideration is the factual accuracy of the accounts that were analysed. Altier, et al. (2012, p. 90) explained the potential for bias in autobiographical data.

"authors may legitimize, rationalize, and justify their previous behavior as well as offer propaganda to further a group's "message" and cause."

Authors may be strongly motivated to portray their actions in a favourable light. This risk for inaccuracy over specific events may help to explain the lack of significant differences between specific events and experiences. This may provide an alternate explanation as to why there were no significant differences between being involved in violence and psychological distress. Authors were often reluctant to concede to being involved in specific events, and this may reduce the validity of the results. However, autobiographical data still affords the opportunity to examine how terrorist's construct their personal and social identities, and make crucial life decisions, as although the individuals may not record direct involvement in specific activities, they were very likely to describe their thoughts and feelings around such incidents.

A further bias inherent within autobiographical data concerns the sampling pool. Individuals who are willing to write autobiographies, may in fact be fundamentally different from those who do not write about their experiences. These individuals may not be representative of the huge number of individuals involved within terrorism, and may in fact be outliers. However, this limitation applies to other forms of primary data gathered by terrorism researchers; those who have written autobiographies may also be more receptive to interview techniques.

Despite these limitations, both this chapter and chapter five have offered new, empirical insights into what it is to 'be' a terrorist. The complexity of social and personal experiences that occur during a lifespan has highlighted that the social connections groups may have a protective role for buffering against psychological distress. However, this chapter has also indicated that for a subset of individuals, the inherent risk factors and negative experiences encountered during engagement may have a longstanding impact on psychological wellbeing. The results of this chapter have provided important implications, which current de-radicalisation and disengagement programmes should consider. Psychological distress spanning from involvement within a terrorist group impacts a significant proportion of individuals well after disengagement. For these individuals, de-radicalisation and disengagement programmes conducted over a limited time period may not be sufficient to alleviate distress.

## 6.6 Conclusion

This chapter has provided empirical evidence that the current common opinion that individuals involved in terrorist groups do not suffer from mental health problems needs to be reconsidered. Individuals engaged within terrorism encounter a number of risk factors, which if an individual has lower baseline levels of individual resilience and is not fully committed to the group identity, may impact them psychologically. The results highlighted that it is not the presence of risk factors which impact on an individual, but how they perceive these risk factors. The results have provided supporting evidence for chapter five, and helped to highlight the complexity of 'being' a terrorist; multiple factors at individual, social, and group levels impact on an individual as they pass through life. The results of both this and the preceding chapter have confirmed that dichotomous opinions and statements such as "It's a group phenomenon. To search for individual characteristics in order to understand them is totally misleading. It will lead you to a dead end" (Sageman, cited by Rotella, 2004) need to be seriously reconsidered. A large number of individuals self-reported instances of severe psychological distress over multiple points in their lifespans, which in some cases was compounded by their disagreement over the actions of the group. The results of these two chapters have provided

the first empirical exploration of terrorist involvement and psychopathology as processes, and have highlighted the need to rethink the current endemic opinions within terrorism research.

The next chapter of this thesis, takes the results of both chapters 5 and 6 as a starting point to examine the evidence generated within this work, and explores how this thesis adds to the current knowledge base, and provides implications, not only for research, but for practice.

# Chapter 7.  Conclusion

This thesis has utilised multiple methodologies and analyses to highlight the importance of moving from a static, dichotomous view point, to nuanced and multifaceted reasoning and analytical procedures. The results largely agree with, and build on the conclusions of the seminal reviews in period three: In *certain cases*, mental disorder *may* play a role in terrorist behaviour, and in *certain cases,* terrorist involvement *may* play a role in the development of a mental disorder. The work in this thesis has highlighted that accepted theories surrounding 'rationality', 'selection effects', and 'social buffering' require immediate review. It is not sufficient to claim that individuals with mental disorder are not capable of planning and executing sophisticated attacks, or that these individuals are not recruited to organisations because they are viewed as less desirable, or that the social environment of a group protects all individuals from developing mental health problems. Terrorism is an emotive subject, and this, alongside the relative youth of the academic field has allowed, and in some instances, encouraged the proliferation of 'intuitive' (and in some cases, uninformed) reasoning, which has not been supplemented with, or verified by a valid empirical evidence base.

The results of this thesis highlight the need to adjust current perceptions of the role of mental disorder in terrorism in numerous ways. These, the limitations, and future directions are now explained.

Chapter three followed from the recommendations of Corner and Gill (2015), and replicated the research design, with the inclusion of a comparison group. This chapter empirically validated Corner and Gill, demonstrating that the currently accepted mantra that an individual who carries out an act of targeted violence is *either* a 'rational' terrorist, or a mentally unstable civilian is false. Lone-actors and mass murderers often exhibit similar planning and attack behaviours, and there were very few significant differences between those who had a mental disorder and those who did not. The further exploration examining only individuals with a mental disorder was the area that yielded significant differences. These results run contrary to the overall conclusions of Horgan et al. (2016), who utilising the same dataset, conceded that lone-actor terrorists and mass murderers have highly similar underlying motivations, and the differences between actors lie in a) degree of interaction with others, b) planning behaviours, and c) leakage behaviours. The results from this thesis indicate that for those with a mental disorder, motivation and behavioural differences are far more complex and multifaceted.

Unfortunately, due to data constraints, this chapter was not able to fully replicate the design of Corner and Gill, and further disaggregate psychopathology to examine behavioural differences between disorder groups. This issue spanned from an inability to reliably code confirmed diagnoses within the mass murderer cohort. This was most evident in the lack of significant bivariate differences within the mass murderer cohort, and between disorders across actor types. Within the U.S., mass murder,[63], as opposed to lone-actor terrorism is a fairly common event. This led to a comparative lack of underreporting within media and open source outlets, and there were inherent difficulties in identifying finer grained details of psychopathological conditions, as compared with lone-actor events. Alongside the underreporting, mass murderers were significantly more likely to be killed during their attack, which affected the amount of information published. In many cases, the most reliable evidence regarding an individual's mental state was found during trial proceedings, as 55.7% of mass murderers never reached trial, this severely limited the possibility of determining, with confidence, detailed psychometrics, leading to a large number of 'unspecified' diagnoses. To expand on this limitation, and move towards a more disaggregated approach, further work needs to focus on motivation and behavioural differences between disorders within mentally disordered lone-actors and mass murderers.

A further limitation concerns the lone-actor dataset. Compared to Corner and Gill (2015), the cohort size of lone and solo-actor terrorists was reduced from 153 actors to 129. This was due to a refinement of definition for selection for this thesis. This refinement did not severely impact bivariate findings, however, following the knock on effect of a reduction in statistically significant differences between mentally disordered and non-mentally disordered lone-actors within the bivariate analyses, it did impact the possibility of fully replicating the multivariate analysis. A larger concern, specifically related to the validity of the results within chapter three, is the use of only Western data. All open source data gathered for the lone-actor (and mass murderer) dataset was taken from Western environments. This was due to severe underreporting within English language media of specific lone-actor attacks outside of the West. To date, lone-actor terrorist attacks in the U.S. and Europe are still considered 'black swan' events, and gather much media interest, whereas within the Middle East and African countries, the sheer number of terrorist attacks attract less media and open source interest. According to the Global Terrorism Index (Institute for Economics and Peace, 2016), in 2015, the five countries with the highest impact from terrorism were Iraq, Afghanistan, Nigeria, Pakistan, and Syria. These countries accounted for 72% of all deaths related to terrorism. In-

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[63] An individual who commits "a number of murders (four or more) occurring during the same incident, with no distinctive time period between the murders" (Federal Bureau of Investigation, 2005).

fact within the top 50 countries impacted by terrorism, only five were within Western environments (France- 29, United Kingdom- 34, United States- 36, Germany- 41, Greece- 43, Sweden- 46). Adjacent to this limitation is the prevalence of mental disorders across non-Western countries. Kessler et al. (2008) describe vastly different disorder prevalence across countries within the World Health Organisation, ranging from a lifetime risk of 47.4% within the U.S. to 12.0% in Nigeria. This diversity highlights cultural differences in mental disorder recognition, acceptance, and treatment. Given this, prevalence of mental disorders within countries with higher impact from terrorism may not match the prevalence from the sample used in chapter three. The results and conclusions of chapter three should therefore be interpreted with a recognition, that conclusions from data gathered from non-Western environments may produce radically different results. The results within chapter three, must not be interpreted as representative of 'terrorism' as an aggregate term, however, should be interpreted as a specific subtype of individuals who engage with specific environments.

Chapter four presented the first empirical investigation into the recruitment process that terrorist groups employ, and the primary explanation for the relatively low prevalence of mental disorder within terrorist groups; selection effects. This chapter highlighted that joining a terrorist group is far more multifaceted and complex than current opinion suggests. It is also not sufficient to explain away mental disorder prevalence within terrorist groups through one mechanism, that, as the evidence base highlighted, is rarely employed. This chapter utilised unique and comprehensive autobiographical and interview datasets to dispel the singular explanation that individuals with a mental disorder are seen as less desirable, and are therefore rejected at recruitment. This, in certain instances, may be the case. However, the results presented a far more nuanced view. If an overtly unwell individual does approach a group with a view to be recruited, and a comprehensive recruitment process does take place, then in certain cases, the personal opinion of the recruiter may influence the overall decision to accept the individual.

This chapter relied heavily upon access to terrorist autobiographies, which were often historical accounts, and biased towards a political genre, which limited the depth of information regarding diagnosed mental health problems. Individuals are often motivated to conceal their mental health status, in order to appear 'normal', and this is particularly true within the autobiographies, who were often using their writings as a platform for their political message. The authors may have been concerned that disclosing their mental state may have portrayed a lack of capability, and even rationality, and readers may have not taken their political message with the seriousness intended. Or they may have simply not deemed their psychological state as relevant. Another limitation of using autobiographical accounts to

examine recruitment patterns was that determining whether potential recruits were rejected on the basis of their mental health status was problematic. Recruiters did not disclose whether mental disorder was a factor in the recruitment process; this may be because recruiters did not write about instances of making a decision based on mental health status, not because it did not occur. The results therefore need to be interpreted carefully, a lack of disclosure does not imply a lack of the hypothesised decision process.

Following the obstacles and constraints explained on page 26, within the timeframe of this thesis, only three interviews with former terrorist recruiters were carried out. These interviews allowed an initial insight into the question of rejection due to mental health status, however, the small number of interviews is not sufficient to conclude with conviction that this is true across or within terrorist groups. It may also be a possibility that the three individuals who consented to interview were outliers, as they were willing to meet and talk about their clandestine lifestyles. Dolnik (2013) explained the numerous problems with conducting interviews in the field of terrorism; the secrecy that terrorists can shroud themselves in in order to protect themselves often hampers effective first hand data collection. Other investigations have conducted a far greater number of interviews in order to reach their conclusions (Busher, 2016; Le Blanc, 2012; Rekawek, 2011; Veldhuis (cited by Schuurman & Eijkman, 2013)), and the results of chapter four highlight the complexity and fluidity of terrorist recruiter, and many more interviews would be necessary to determine, in which circumstances mental health status may be a barrier to recruitment. Therefore, further work needs to draw on more interviews, where the question of rejection based on mental health status can be put to recruiters. This data would also be improved by examining online recruitment activities, and map the apparent evolution of recruitment processes.

A further limitation to chapter four concerns the amount of data procured on solo-actor terrorists. This data was presented as a middle ground to help determine whether some individuals are given more autonomy in their attacks, and whether this cohort are more likely to display certain mental disorders or symptoms. The results implied that individuals in this cohort are more likely than lone-actors, group-actors, and a general population, to be diagnosed with ASD and PTSD, and just as likely as lone-actors to be diagnosed with schizophrenia. However, the low number of solo-actors tested, reduce the reliability of the results. A larger sample may produce different results. Therefore, the results are presented with an explanation as to why this trend has occurred within this specific dataset. Given the more recent trend of individuals aligning themselves with the Islamic State, and being subsequently directed to commit an attack alone, further examination of these individuals can supplement the dataset, and more concrete conclusions can be offered.

Chapters 5 and 6 presented the first empirical work to utilise process theories to specifically focus on psychopathology and terrorism. Current process theories have implicitly suggested that mental disorder and psychological distress may be of some usefulness in explaining terrorist behaviour, but to date, these conclusions have been subsumed within overall conclusions. Alongside this, these chapters endeavoured to move past diagnoses, and focus on symptoms, experiences, and vulnerabilities. Individuals with mental disorders present with multiple and complex needs across a wide spectrum, each having subtle effects on functioning. These chapters were the first empirical work within the field of psychopathology and terrorism to consider and examine these experiences, and how they play a role in an individual's development and trajectory towards, during, and following terrorist engagement.

Chapters 5 and 6 utilised novel inferential statistical analyses to map experiences and processes in the life spans of individuals who were engaged within a terrorist group. Chapter five drew from the results of chapter four, and examined the secondary explanation for the documented prevalence of mental disorder; sociological protective factors. The review of the literature from other academic areas suggested that protective factors may have a role in buffering from the effects of an inherently stressful lifestyle. However, the results indicated that within the cohort of individuals tested, individual resilience, not sociological factors, is of more use in explaining mental disorder prevalence. Alongside this, there were very few statistical differences between those who reported distress, and those who did not. The analyses within chapters five and six were limited due to the complexity of examining multiple internal and external factors, and how the presence of these factors impact an individual's psychological wellbeing. During coding, over 200 experiences were examined, and every individual had a different life course and trajectory of experiences. To date, proximity coefficients have been used to examine interactions, with a limited number of experiences within each behavioural chain, the analyses within chapters five and six examined far more comprehensive processes. As explained in chapter five, to reduce the noise within the data, bivariate statistics were employed to reduce the amount of experiences examined. This may have reduced the validity and replicability of the results, and should be taken into account during interpretation. Given the data constraints, it was also not possible to examine entire life courses, and the results were therefore split into pre-engagement, engagement, and disengagement, with little examination of how these pathways may be linked.[64] Further work should endeavour to examine longer behavioural pathways, and build a more complete picture of entire life courses.

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[64] Only disengagement was analysed.

A larger concern, which affected the results of both chapters five and six was the inclusion of government agents within the autobiographical dataset. Overall 12 individuals admitted to acting for government forces during their engagement, and as these individuals were not as invested to the 'cause' for their group, their experiences may be inherently different from a fully committed terrorist, and therefore skew the data. However, as explained on page 31, these individuals were included as they provided evidence for the impact of less cohesive social connections with their group. A secondary reason for inclusion was closely linked to the above explanation regarding highly convoluted pathways. In some cases, it was exceptionally difficult to disentangle the intentions of the informers over their engagement. Some informers were very committed to helping the government, and disrupting the terrorist activities for the entire time they were engaged, whilst others moved towards government following a period of engagement where they were truly committed to the terrorist group, and others acted as government agents, using the money earned from these activities to fund their terrorist lifestyle. Further work should examine differences between 'truly committed' terrorists, and government agents, to discern whether commitment to the ideology and group is an effective protective factor in psychological wellbeing.

The results of chapters 4 and 5, helped the inception of six: Self reporting suggests that group-actor terrorists do suffer from mental health problems, and even within individuals who did not report mental disorder, selection effects and protective factors are not sufficient to explain the levels of psychological distress. Therefore, six explored whether risk factors may be useful for explaining why certain individuals develop mental disorders when they disengage from terrorism. The results of the chapter highlighted the need to move beyond static interpretations of data; the development of psychological distress was intrinsically linked to multiple negative experiences within complex, multifaceted environments. Exposure to these risk factors during engagement has long term consequences for individuals once they disengage. These results validate recent investigations of former political actors in Ireland.

The examination of autobiographical texts to examine experiences of terrorist engagement limits the validity of the results from chapters five and six, as only a limited number of individuals who have ever engaged within a terrorist group have written about their experiences. Much like the limitations highlighted concerning the interview data, those who wrote autobiographical texts may be outliers, in that they are willing to share their story, as one interviewee explained:

"There is a great untold story of the guys that were in the IRA but either didn't get caught or never said anything…" (Interview 3, 2016).

Much like the issue regarding admission of mental health status, it may also be the case that the individuals who wrote the texts may have been motivated to conceal or omit certain experiences in order to pursue a political goal with publication, or portray themselves in a favourable light, as in a small number of texts, the author's explanation of certain actions did not match historical records. For example, if authors chose to omit that they were involved in violence, to portray themselves as a legitimate politician, this may have affected the results, aiding explanation as to why, in chapter six, the recorded experience of violence, either through victimisation, or perpetration was not significantly associated with experiencing psychological distress. A secondary issue, which may have affected the accuracy of the data concerns the fragility of memory. Many of the texts were written in the post-disengagement space, when an individual may not have accurately recalled- despite best intentions- specific experiences and memories. To improve on these limitations, further research should examine and the vast proliferation of online accounts and daily blogs of far more recent terrorism-related activities, for example, individuals involved within the conflicts in the Middle East. In the digital age, this information is now more readily accessible, and has the potential to offer further insight into 'being a terrorist'.

The results of this chapter (and chapter five) would also be improved by employing a comparison group of lone-actors. During the data collection phase of this thesis, I gained access to, and coded five autobiographical accounts of lone-actor terrorists, but this low number was not sufficient to utilise as a comparison. Further research should endeavour to examine more autobiographical accounts of lone-actor terrorists.

Overall, the results of chapters 5 and 6 highlight the complexity of examining mental disorder within terrorism, and provide empirical evidence to adjust common thought and current practice. The development of mental disorder within terrorist actors is diverse and complex. Much like a general population, a proportion of individuals suffer from distress in their early life, and a subset of these will have continuing psychological problems. Also like a general population, there are also a subset of individuals who, because of negative experiences, will go onto have psychological problems, when there was no previous manifestation of distress prior to the experiences.

One limitation which has affected the validity of data for all chapters of this thesis, was the lack of psychiatric assessments. In no case was it possible to perform psychiatric assessments on any of the cases included. To overcome this, and improve reliability, when coding the open source data, reliability tiers and external psychiatric expertise were used to arrive at the most comprehensive explanation of the mental states of those within the datasets.

Within the autobiographical datasets, qualitative experiences of negative psychological wellbeing were coded as psychological distress, and a secondary coder helped to confirm reliability. However, without access to each individual, and comprehensive psychiatric assessments, these results should be regarded as a starting point for stringent scientific investigation into psychopathology within terrorism studies. Further work should endeavour to pursue psychiatric assessments. The difficulties spanning from the low report of mental disorder may also be alleviated through an expansion of the interview dataset, with direct questions concerning mental disorder and psychological distress, that authors of the autobiographies may not have thought relevant for their political dialogues.

Despite the limitations highlighted, the results from this thesis help boost both acadmemic and practitioner knowledge and practice. UK based practitioners have long been aware of the risks an individual with a mental disorder may face if they hold an interest in an extreme political ideology. UK government protocol for this issue has been in place for nearly a decade, whereas valid empirical evidence within the academic arena remains elusive. Researchers continue to caveat that the continuing deficiency of a data-driven evidence base concerning individual-level motivations and processes has stunted the emergence of scientifically valid theories of the psychological processes involved in 'being' a terrorist (Horgan, 2012). However, this thesis has demonstrated that stringent data collection procedures when gathering secondary data can reduce these concerns. The open source based prevalence data within this thesis closely matches first hand psychological assessment data from Prevent referrals. Preliminary results from an NHS pilot study have highlight that within Prevent referrals, 44% show evidence of mental disorder, with 16% of these cases presenting with psychoses, 20% with non-psychotic disorders, and 11% with competence difficulties or diagnosed autism spectrum disorders (Fowler, Chambers, & Gatherer, 2016).

Alongside this parallel statistical evidence, the results from this thesis can also aid practitioners and policy makers. The results from chapter three highlight that, despite common belief, individuals with mental health problems are not isolated and unpredictable. They do carry out sophisticated planning, and do inform others of their grievance. Practitioners could utilise this evidence base to provide more effective prevention methods. Chapter four provides evidence for a shift in thought surrounding the potential for individuals with mental disorder to become involved within a terrorist group. Currently practitioners follow the academic belief that individuals with mental disorder are screened out during recruitment. The results of the chapter offer an empirical insight into the complex personal and social processes, and highlight the need for practitioners to not discount a proportion of individuals who are willing to be terrorists on the basis of their mental health status. The most salient implications for policy

and practice, however, are the results from chapters 5 and 6. Currently within the UK, Prevent and Channel primarily focus on vulnerable individuals who are at risk of radicalisation. The results from chapter five offer further insight for both programmes, looking at specific behaviour combinations for individuals with and without early life mental health and terrorist engagement risk factors.

The results from six highlight that the static focus of these government programmes do not account for the risk factors for psychological distress following terrorist engagement. The results highlight how a proportion of former terrorists go on to have multiple and complex psychological and social needs. Needs that are considered prior to radicalisation. The results from six highlight the duty of care for individuals in the post-disengagement space. There are multiple NGOs worldwide which have established de-radicalisation and rehabilitation programmes, some of which utilise mental health professionals. These programmes are rare in the West, however, and there is a distinct lack of government support and supervision.

Despite the recent advancements in the empirical knowledge base of psychopathology and terrorism, the dichotomous thought that an individual can *either* be a terrorist *or* a mentally unstable attacker continues to proliferate. Chapter two highlighted how the subjective misconstructions have historically, and continue to, permeate some terrorism literature and media accounts. So I conclude this thesis by reiterating that in no part of this multi-pronged methodology of various datasets has a causal link between mental disorder and terrorism been identified. The results from this thesis have captured a decidedly nuanced image of how psychopathology affects, and is affected by highly personalised journeys into and through terrorist careers.

# Bibliography

Abrahms, M. (2011). Does terrorism really work? Evolution in the conventional wisdom since 9/11. *Defence and Peace Economics, 22*(6), 583-594. http://dx.doi.org/10.1080/10242694.2011.635954

Adair, J. (2009). *Mad Dog*. London, England: Blake.

Agnew, R. (2010). A general strain theory of terrorism. *Theoretical Criminology, 14*(2), 131-153.

Akhtar, S. (1999). The psychodynamic dimension of terrorism. *Psychiatric Annals, 29*(6), 350-355. http://dx.doi.org/10.3928/0048-5713-19990601-09

Alden, A., Brennan, P., Hodgins, S., & Mednick, S. (2007). Psychotic disorders and sex offending in a Danish birth cohort. *Archives of General Psychiatry, 64*(11), 1251-1258.

Alderdice, L. (2007). The individual, the group and the psychology of terrorism. *International Review of Psychiatry, 19*(3), 201-209. http://dx.doi.org/10.1080/09540260701346825

Aldwin, C. M., Levenson, M. R., & Spiro, A. (1994). Vulnerability and resilience to combat exposure: Can stress have lifelong effects? *Psychology and Aging, 9*(1), 34-44. http://dx.doi.org/10.1037/0882-7974.9.1.34

Al-Hout, S., Makdisi, J. S., & Asser, M. (2011). *My life in the PLO: The inside story of the Palestinian struggle.* London, England: Pluto Press.

Allen, C. (2007, March 14). *Threat of Islamic radicalization to the homeland.* Written testimony to the U.S. Senate Committee on Homeland Security and Governmental Affairs, Washington, D.C., (pp. 4).

Alonso, J., Angermeyer, M. C., Bernert, S., Bruffaerts, R., Brugha, T. S., Bryson, H., …& Vollebergh, W. A. (2004). Prevalence of mental disorders in Europe: Results from the European study of the epidemiology of mental disorders (ESEMeD) project. *Acta Psychiatrica Scandinavica, 109*(S420), 21-27. http://dx.doi.org/10.1111/j.1600-0047.2004.00327.x

Altarac, M., & Saroha, E. (2007). Lifetime prevalence of learning disability among US children. *Pediatrics, 119*(1), S77-S83. http://dx.doi.org/10.1542/peds.2006-2089L

Altier, M. B., Horgan, J., & Thoroughgood, C. (2012). In their own words? Methodological
    considerations in the analysis of terrorist autobiographies. *Journal of Strategic Security, 5*(4),
    85-98. http://dx.doi.org/10.5038/1944-0472.5.4.6

Altier, M. B., Leonard, E., Shortland, N., Horgan. J. (Forthcoming). Into Terrorism, Out of
    Terrorism, and Back Again. *Journal of Conflict Resolution*

Amaya-Jackson, L., & March, J. S. (1995). Posttraumatic stress disorder. In J. S. March (Ed.),
    *Anxiety disorders in children and adolescents* (pp. 276-300). New York, NY: Guilford Press.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders,
    fifth edition*. Arlington, VA: American Psychiatric Publishing.

Angermeyer, M. C., Matschinger, H., & Corrigan, P. W. (2004). Familiarity with mental illness and
    social distance from people with schizophrenia and major depression: Testing a model using
    data from a representative population survey. *Schizophrenia Research, 69*(2-3), 175-182.
    http://dx.doi.org/10.1016/S0920-9964(03)00186-5

Arseneault, L., Moffitt, T. E., Caspi, A., Taylor, P. J., & Silva, P. A. (2000). Mental disorders and
    violence in a total birth cohort: Results from the Dunedin Study. *Archives of General
    Psychiatry, 57*(10), 979-86. http://dx.doi.org/10.1001/archpsyc.57.10.979

Atran, S. (2010). *Talking to the enemy: Faith, brotherhood, and the (un)making of terrorists.*
    Glasgow, Scotland: Harper Collins.

Australian Associated Press. (2015, August 26). Sydney siege would have been extremely hard to
    predict, inquest told. *The Guardian*. Retrieved from http://www.theguardian.com

Australian Associated Press. (2016, April 1). Sydney siege inquest: Hostage pleaded with police to
    storm Lindt cafe urgently. *The Guardian*. Retrieved from http://www.theguardian.com

Australian Associated Press. (2016 May 2). Sydney siege inquest: Man Haron Monis was a
    psychopathic lone wolf terrorist. *The Guardian*. Retrieved from http://www.theguardian.com

Baker, H. S., & Baker, M. N. (1987). Heinz Kohut's Self Psychology. *American Journal of
    Psychiatry, 144*, 1-9.

Barnes, B. D. (2012). Confronting the one-man wolf pack: Adapting law enforcement and
    prosecution responses to the threat of lone wolf terrorism. *Boston University Law Review,
    92*, 1613-1662.

Barnett, D., Harvey, R., & Chipema, C. (1972). *The revolution in Angola: MPLA life histories and documents.* Indianapolis, IN: The Bobbs-Merrill Company

Barnett, D., Harvey, R., & Candonga, P. (1972). *The revolution in Angola: MPLA, life histories and documents.* Indianapolis, IN: The Bobbs-Merrill Company

Barnett, D. L., & Njama, K. (1970). *Mau Mau from within: An analysis of Kenya's peasant revolt.* New York, NJ: Monthly Review Press.

Baruch, E. H. (2003). Psychoanalysis and terrorism: The need for a global talking cure. *Psychoanalytic Psychology, 20*(4), 698-700. http://dx.doi.org/10.1037/0736-9735.20.4.698

Bar-Tal, D. (2004). The Necessity of Observing Real Life Situations: Palestinian-Israeli Violence as a Laboratory for Learning about Social Behaviour. *European Journal of Social Psychology, 34*(6), 677-701. http://dx.doi.org/10.1002/ejsp.224

Başoğlu, M., Paker, M., Paker, O., Ozmen, E., Marks, I., Incesu, C., … & Sarimurat, N. (1994). Psychological effects of torture: A comparison of tortured with nontortured political activists in Turkey. *American Journal of Psychiatry, 151*(1), 76-81

Baumann, A. E. (2007). Stigmatization, social distance and exclusion because of mental illness: The individual with mental illness as a 'stranger'. *International Review of Psychiatry, 19*(2), 131-135. http://dx.doi.org/10.1080/09540260701278739

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vihs, K. D. (2001). Bad is stronger than good. *Review of General Psychiatry, 5*(4), 323-370. http://dx.doi.org/10.1037/1089-2680.5.4.323

Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge.* London, England: Penguin UK.

Berger, J. M., & Morgan, J. (2015). The ISIS Twitter census: Defining and describing the population of ISIS supporters on Twitter. *The Brookings Project on US Relations with the Islamic World, 3*(20).

Berko, A. (2007). *The path to paradise: The inner world of suicide bombers and their dispatches.* Westport, CT: Praeger Publishers.

Berney, L. R., & Blane, D. B. (1997). Collecting retrospective data: Accuracy of recall after 50 years jusged against historical records. *Social Science and Medicine, 45*(10), 1519-1525. http://dx.doi.org/10.1016/S0277-9536(97)00088-9

Berrebi, C. (2009). The economics of terrorism and counterterrorism: What matters and is rational-choice theory helpful? In P. K. Davis, & K. Cragin (Eds.) *Social science for counterterrorism: Putting the pieces together* (pp. 151-208). Santa Monica, CA: RAND

Beune, K., Giebels, E., & Taylor, P. J. (2010). Patterns of interaction in police interviews: The role of cultural dependency. *Criminal Justice and Behavior, 37*(8), 904-925. http://dx.doi.org/10.1177/0093854810369623

Billig, O. (1985). The lawyer terrorist and his comrades. *Political Psychology, 6*(1), 29-46.

Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behaviour Research and Therapy, 34*(8), 669-673. http://dx.doi.org/10.1016/0005-7967(96)000233-2

Bland, R. C., Orn, H., & Newman, S. C. (1988). Lifetime prevalence of psychiatric disorders in Edmonton. *Acta Psychiatrica Scandinavica 77*(S338), 24-32.

Bleich, A., Gelkopf, M., & Solomon, Z. (2003). Exposure to terrorism, stress-related mental health symptoms, and coping behaviors among a nationally representative sample in Israel. *JAMA, 6*(290), 612-620.

Bloom, M., & Horgan, J. (2008). Missing their mark: The IRA's proxy bomb campaign. *Social Research, 75*(2), 579-614.

Bogardus, E. S. (1933). A social distance scale. *Sociology and Social Research, 17*, 265-271.

Böllinger, L. (1981). Die entwicklung zu terroristischen handeln als psychosozialer prozess: Bengenungen mit beteiligten. In H. Jäger, G. Schmidtchen, & Süllwold, L. (Eds.) *Lebenslaufanalysen* (Vol. 2, pp. 117-243). Opladen: Westdeutscher Verlag.

Böllinger, L. (1985). Terrorist conduct as a result of a psychological process. In P. Pichot, P. Berner, & K. Thau (Eds.) *Psychiatry the state of the art* (Vol. 6, pp. 387-389). New York, NY: Plenum Press.

Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*(1), 20-28. http://dx.doi.org/10.1037/0003-066X.59.1.20

Born, M., Chevalier, V., & Humblet, I. (1997). Resilience, desistance and delinquent career of adolescent offenders. *Journal of Adolescence, 20*(6), 679-694

Borum, R. (2004). *Psychology of terrorism*. Tampa, FL: University of South Florida

Borum, R. (2011). Understanding terrorist psychology. In A. Silke (Ed.) *The psychology of counter-terrorism.* (pp.19-33). Oxon, England: Routledge.

Borum, R. (2013). Informing lone-offender investigations. *Criminology & Public Policy, 12*(1), 103-112. http://dx.doi.org/10.1111/1745-9133.12016

Borum, R., Fein, R., & Vossekuil, B. (2012). A dimensional approach to analyzing lone offender terrorism. *Aggression and Violent Behavior, 17*(5), 389-396. http://dx.doi.org/10.1016/j.avb.2012.04.003

Boucek, C. (2008). Counter-terrorism from within: Assessing Saudi Arabia's religious rehabilitation and disengagement programme. *The RUSI Journal, 153*(6), 60-65. http://dx.doi.org/10.1080/03071840802670106

Bowie, N. G., & Schmid, A. P. (2011). *Databases on terrorism*. Routledge Handbooks Online.

Bowman-Grieve, L., & Conway, M. (2012). Exploring the Form and Function of Dissident Irish Republican Online Discourse. *Media, War & Conflict, 5*(1), 71-85.

Boyle, C. A., Boulet, S., Schieve, L. A., Cohen, R. A., Blumberg, S. J., Yeargin-Allsopp, M., … Kogan, M. D. (2011). Trends in the prevalence of developmental disabilities in US children 1997-2008. *Pediatrics, 127*(6), 1034-1042. http://dx.doi.org/10.1542/peds.2010-2989

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threats. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, and content* (pp. 35-58). Oxford, UK: Blackwell.

Brennan, P. A., Mednick, S. A., & Hodgins, S. (2000). Major mental disorder and criminal violence in a Danish birth cohort. *Archives of General Psychiatry, 57*(5), 494-500. http://dx.doi.org/10.1001/archpsyc.57.5.494

Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology, 68*(5), 748-766. http://dx.doi.org/10.1037/0022-006X.68.5.748

Brill, H., & Malzberg, B. (1962). *Statistical report on the arrest record of male ex-patients released from New York State mental hospitals during the period 1946-1948.* Criminal acts of ex-mental hospital patients, American Psychiatric Association Mental Hospital Service, Washington, DC (Suppl. no. 153)

Broadhead, W. E., Kaplan, B. H., James, S. A., Wagner, E. H., Schoenbach, V. V., Grimson, R., … & Gehlbach, S. H. (1983). The epidemiologic evidence for a relationship between social support and health. *American Journal of Epidemiology, 117*(5), 521-537.

Brugha, T., Singleton, N., Meltzer, H., Bebbington, P., Farrell, M., Jenkins, R., … Lewis, G. (2005). Psychosis in the community and prisons: A report from the British National Survey of psychiatric morbidity. *American Journal of Psychiatry, 162*(4), 774-780. http://dx.doi.org/10.1176/app.ajp.162.4.744

Brym, R. J., & Araj, B. (2012). Are Suicide Bombers Suicidal? *Studies in Conflict & Terrorism, 35*(6), 432-443. http://dx/doi.org/10.1080/1057610x.2012.675550

Brym, R. J., & Araj, B. (2012a). Suicidality and Suicide Bombing Revisited: A Rejoinder to Merari. *Studies in Conflict & Terrorism, 35*(10), 733-739. http://dx.doi.org/10.1080/1057610x.2012.712033

Bubolz, B. F., & Simi, P. (2015). Leaving the world of hate life-course transitions and self-change. *American Behavioral Scientist, 59*(12), 1588-1608. http://dx.doi.org/10.1177/0002764215588814

Bueno de Mesquita, E. (2005). The quality of terrori. *American Journal of Political Science, 49*(3), 515-5390. http://dx.doi.org/10.1111/j.1540-5907.2005.00139.x

Burton, D., Foy, D., Bwanausi, C., Johnson, J., & Moore, L. (1994). The relationship between traumatic exposure, family dysfunction, and post-traumatic stress symptoms in male juvenile offenders. *Journal of Traumatic Stress, 7*(1), 83-93.

Busher, J. (2016). *The making of an anti-Muslim protest: Grassroots activism in the English Defence League.* Oxon, England: Routledge.

Byrne, M. K. (2003). Trauma reactions in the offender. *International Journal of Forensic Psychology, 1*(1), 59-70

Cabezas, O. (1985). *Fire from the mountain: The making of a Sandinista.* London, England: Jonathan Cape.

Cauffman, E., Feldman, S. S., Waterman, J., & Steiner, H. (1998). Posttraumatic stress disorder among female juvenile offenders. *Journal of American Academy of Child and Adolescent Psychiatry, 37*(11), 1209-1217.

Clark, R. (1983). Patterns in the lives of ETA members. *Terrorism, 6*(3), 423-454. http://dx.doi.org/10.1080/10576108308435541

Clarke, D. D., Forsyth, R., & Wright, R. (1999). Junction road accidents during cross-flow turns: A sequence analysis of police case files. *Accident Analysis & Prevention, 31*(1-2), 31-43. http://dx.doi.org/10.1016/S0001-4575(98)00042-6

Cocozza, J. J., Melick, M. E., & Steadman, H. J. (1978). Trends in violent crime among ex-mental patients. *Criminology, 16*(3), 317-334.

Cohen, G. (1966). *Woman of violence: Memoirs of a young terrorist, 1943-1948.* New York, NY: Holt, Reinhart and Winston

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement, 20*(1), 37-46. http://dx.doi.org/10.1177/001316446002000104

Cohen, L., & Freeman, H. (1945). How dangerous to the community are state hospital patients? *Conneticut State Medical Journal, 9*(69), 697-700.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357.

Coid. J. W., Ulrich, S., Keers, R., Bebbington, P., DeStavola, B. L., Kallis, C., … Donnelly, P. (2013). Gang membership, violence, and psychiatric morbidity. *American Journal of Psychiatry, 170*(9), 985-993.

Collins, A. (2002). My jihad: *The true story of an American mujahid's amazing journey from Usama Bin Laden's training camps to counterterrorism with the FBI and CIA.* Guilford, CT: Lyon Press.

Collins, E. (1998). *Killing Rage.* London, England: Granta Publications.

Collins, J. J., & Schlenger, W. E. (1983). *The prevalence of psychiatric disorder among admissions to prison.* Presented at the American Society of Criminology, Denver, CO, November 1983

Collins English Dictionary. (2016). *Psychopathology.* Retrieved from http://www.collinsdictionary.com/dictionary/english

Colman, A. M. (2015). *Oxford dictionary of psychology.* Oxford, England: Oxford University Press.

Conway, M., & McInerney, L. (2008). *Jihadi video and auto-radicalisation: Evidence from an exploratory YouTube study*. Paper presented at the Intelligence and Security Informatics: First European Conference EuroISI 2008, Berlin Heidelberg.

Conway, M. A., & Haque, S. S. (1999). Overshadowing the reminiscence bump: Memories of the struggle for independence. *Journal of Adult Development, 6*(1), 35-44. http://dx.doi.org/10.1023/A:1021672208155

Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review, 107*(2), 261-288. http://dx.doi.org/10.1037/0033-295X.107.2.261

Conway, M. A. Pleydell-Pearce, C. W., & Whitecross, S. E. (2001). The neuroanatomy of autobiographical memory: A slow cortical potential study of autobiographical memory retrieval. *Journal of Memory and Language, 45*(3), 493-524. http://dx.doi.org/10.1006/jmla.2001.2781

Cooper, H. H. A. (1978). Psychopath as terrorist. *Legal Medicine Quarterly, 2*(4), 253-262

Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Quantitative Sociology, 13*(1), 3-21. http://dx.doi.org/10.1007/BF00988593

Cordes, B. (1987). When terrorists do the talking: Reflections on terrorist literature. *Journal of Strategic Studies, 10*(4), 150-171. http://dx.doi.org/10.1080/01402398708437319

Corner, E., & Gill, P. (2015). A False Dichotomy? *Mental Illness and Lone-Actor Terrorism, 39*(1), 23-3. http://dx.doi.org/10.1037/lhb0000102

Corner, E., Gill, P., & Mason, O. (2016). Mental health disorders and the terrorist: A research note probing selection effects and disorder prevalence. *Studies in Conflict & Terrorism, 6,* 560-568. http://dx.doi.org/10.1080/1057610X.2015.1120099

Corrigan, P. W., & Watson, A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice, 9*(1), 35-53

Côté, G., & Hodgins, S. (1990). Co-occurring mental disorders among criminal offenders. *Journal of the American Academy of Psychiatry and the Law Online, 18*(3), 271-281.

Craig, T. J. (1982). An epidemiologic study of problems associated with violence among psychiatric inpatients. *American Journal of Psychiatry, 139*(10), 1262-1266

Cragin, K., & Daly, S. A. (2004). *The dynamic terrorist threat: An assessment of group motivations and capabilities in a changing world.* Santa Monica, CA: RAND

Crenshaw, M. (1981). The Causes of Terrorism. *Comparative Politics, 13*(4), 379-399.

Crenshaw, M. (1986). The Psychology of Political Terrorism. In M. G. Hermann (Ed.), *Political Psychology*: Jossey-Bass Inc.

Crenshaw, M. (1991). How terrorism declines. *Terrorism & Political Violence, 3*(1), 69-87. http://dx.doi.org/10.1080/09546559108427093

Crenshaw, M. (2000). The Psychology of Terrorism: An Agenda for the 21st Century. *Political Psychology, 21*(2), 405-420.

Crisford, H., Dare, H., & Evangeli, M. (2008). Offence-related posttraumatic stress disorder (PTSD) symptomology and guilt in mentally disordered violent and sexual offenders. *The Journal of Forensic Psychiatry & Psychology, 19*(1), 86-107. http://dx.doi.org/10.1080/14789940701596673

Cronin, A. K. (2006). How al-Qaida ends: The decline and demise of terrorist groups. *International Security, 31*(1), 7-48

Cronin, A. K. (2009). *How terrorism ends: Understanding the decline and demise of terrorist campaigns.* Princeton, NJ: Princeton University Press

Cuffel, B. J., Shumway, M., Chouljian, T. L., & Macdonald, T. (1994). A longitudinal study of substance use and community violence in schizophrenia. *The Journal of Nervous and Mental Disease, 182*(12), 704-708.

Daniels, D., & Moos, R. H. (1990). Assessing life stressors and social resources among adolescents: Applications to depressed youth. *Journal of Adolescent Research, 5*(3), 268-289. http://dx.doi.org/10.1177/074355489053002

Daumantas, J. (1975). *Fighters for freedom: Lithuanian partisans versus the U.S.S.R. 1944-1947.* New York, NY: Manyland Books

Dean, E. T. (1997). *Shook over hell: Post-traumatic stress, Vietnam, and the civil war.* Cambridge, MA: Harvard University Press.

de Cataldo Neuberger, L., Valentini, T. (1996). *Woman and Terrorism*. London, England: Palgrave Macmillan.

Demant, F., Slootman, M., Buijs, F., & Tillie, J. (2008). *Decline and disengagement: An analysis of processes of deradicalisation.* Institute for Migration and Ethnic Studies, Amsterdam.

deMause, L. (2002). The childhood origins of terrorism. *The Journal of Psychohistory, 29*(4), 340-348.

Densley, J. A. (2012). Street gang recruitment: Signalling, screening, and selection. *Social Problems, 59*(3), 301-321.

Dernevik, M., Beck, A., Grann, M., Hogue, T., & McGuire, J. (2009). The use of psychiatric and psychological evidence in the assessment of terrorist offenders. *Journal of Forensic Psychiatry & Psychology, 20*(4), 508-515. http://dx.doi.org/10.1080/13501760902771217

Dietrich, S., Beck, M., Bujantugs, B., Kenzine, D., Matschinger, H., & Angermeyer, M. C. (2004). The relationship between public causal beliefs and social distance toward mentally ill people. *Australian and New Zealand Journal of Psychiatry, 38*(5), 348-354

Dingake, M. (1987). *My fight against apartheid.* London, England: Kliptown Books.

Dodd, V. (2016, May 20). *Police study links radicalisation to mental health problems. The Guardian.* Retrieved from https://www.theguardian.com

Dohrenwend, B. N., & Dohrewend, B. P. (1981). Socioenvironmental factors, stress, and psychopathology. *American Journal of Community Psychology, 9*(2), 128-164.

Dolnik, A. (2013). *Conducting terrorism field research: A guide.* Oxon, England: Routledge.

Donald, M., & Dower, J. (2002). Risk and protective factors for depressive symptomology among a community sample of adolescents and young adults. *Australian and New Zealand Journal of Public Health, 26*(6), 555-562.

Doosje, B., Branscombe, N. R., Spears, R., Manstead, A. S. R. (1998). Guilty by association: When one's group has a negative history. *Journal of Personality and Social Psychology, 75*(4), 872-886. http://dx.doi.org/10.1037/0022-3514.75.4.872

Douglas, K. S., Guy, L. S., & Hart, S. D. (2009). Psychosis as a risk factor for violence to others: A meta-analysis. *Psychological Bulletin, 135*(5), 679-706. http://dx.doi.org/10.1037/a0016311

Drury, J. (2011). Collective resilience in mass emergencies and disasters: A social identity model. In J. Jetten, C. Haslam, & S. A. Haslam (Eds.), *The social cure: Identity, health and well-being* (pp. 195-216). Hove, England: Psychology Press.

Drury, J., Cocking, C., & Reicher, S. (2009). The nature of collective resilience: Survivor reactions to the 2005 London bombings. *International Journal of Mass Emergencies and Disasters, 27*(1), 66-95.

Dubow, E. F., & Tisak, J. (1989). The relation between stressful life events and adjustment in elementary school children: The role of social support and social problem-solving skills. *Child Development, 60*(6), 1412-1423.

Dumont, M., & Provost, M. A. (1999). Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence, 28*(3), 343-363. http://dx.doi.org/10.1023/A:1021637011732

Efta-Breitbach, J., & Freeman, K. A. (2004). Recidivism and resilience in juvenile sexual offenders: An analysis of the literature. *Journal of Child Sexual Abuse, 13*(3-3), 257-279

Eisenberg, L., & Guttmacher, L. A. (2010). Were we all asleep at the switch? A personal reminiscence of psychiatry from 1940 to 2010. *Acta Psychiatrica Scandinavica, 122*(2), 89-102. http://dx.doi.org/10.1111/j.1600-0447.2010.01544.x

Eker, D. (1989). Attitudes toward mental illness: Recognition, desired social distance, expected burden and negative influence on mental health among Turkish freshman. *Social Psychiatry and Psychiatric Epidemology, 24*(3), 146-150.

Elbogen, E. B., & Johnson, S. C. (2009). The intricate link between violence and mental disorder: Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry, 66*(2), 152-161. http://dx.doi.org/10.1001/archgenpsychiatry.2008.537.

Elisha, D., Castle, D., & Hocking, B. (2006). Reducing social isolation in people with mental illness: The role of the psychiatrist. *Australasian Psychiatry, 14*(3), 281–284. http://dx.doi.org/10.1080/j.1440-1665.2006.02287.x

Erickson, P. E., & Erickson, S. K. (2008). *Crime, punishment, and mental illness: Law and the behavioral sciences in conflict*. Piscataway, NJ: Rutgers University Press.

Erikson, E. H. (1959). *Identity and the life cycle: Selected papers*. Psychological Issues Monograph 1. New York, NY: International University Press.

Erikson, E. H. (1968). *Identity, youth and crisis.* London, England: Faber and Faber.

Ethier, K. A., & Deaux, K. (1994). Negotiating social identity when contexts change: Maintaining identification and responding to threat. *Journal of Personality and Social Psychology, 67*(2), 243-251. http://dx.doi.org/10.1037/0022-3514.67.2.243

Evans, J., Middleton, N., & Gunnell, D. (2004). Social fragmentation, severe mental illness and suicide. *Social Psychiatry and Psychiatric Epidemiology, 39*(3), 165-170.

Fazel, S., & Danesh, J. (2002). Serious mental disorder in 23000 prisoners: A systematic review of 62 surveys. *Lancet, 359*(9306), 545-550.

Fazel, S., Doll, H., & Långström, N. (2008). Mental disorder among adolescents in juvenile and detention and correctional facilities. *Journal of the Amercian Academy of Child and Adolescent Psychiatry, 47*(9), 1010-1019.

Fazel, S., Gulati, G., Linsell, L., Geddes, J. R., & Grann, M. (2009). Schizophrenia and violence: Systematic review and meta-analysis. *PLoS Medicine, 6*(8), 1-15. http://dx.doi.org/10.1371/journal.pmed.1000120

Federal Bureau of Investigation. (2005). *Serial murder: Multidisciplinary perspectives for investigators.* Behavioral Analysis Unit, National Center for the Analysis of Violent Crime.

Fein, R., & Vossekuil, B. (1999). Assassination in the United States: An Operational Study of Recent Assassins, Attackers, and Near-Lethal Approachers. *Journal of Forensic Science, 44*(2), 321-333.

Feldman, D. B., & Crandall, C. S. (2007). Dimensions of mental illness stigma: What about mental illness causes social rejection? *Journal of Social and Clinical Psychology, 26*(2), 137-154. http://dx.doi.org/10.1521/jscp.2007.26.2.137

Ferracuti, F. (1982). A sociopsychiatric interpretation of terrorism. *Annals of the American Academy of Political and Social Science, 463*(1), 129-140.

Ferracuti, F., & Bruno, F. (1981). Psychiatric aspects of terrorism in Italy. In I. L. Barak-Glantz and C. R. Huff (Eds.), *The mad, the bad, and the different: Essays in honour of Simon Dinitz* (pp.199-213). Lexington, MA: Heath.

Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.

Fido, A. A., Razik, M. A., Mizra, I., & el-Islam, M. F. (1992). Psychiatric disorders in prisoners referred for assessment: A preliminary study. *Canadian Journal of Psychiatry, 37*(2), 100-103.

Fields, R. M. (1979). Child terror victims and adult terrorists. *The Journal of Psychohistory, 7*(1), 71-75.

Fixated Research Group. (2013). *Preventing harm and facilitating care.* Retrieved from http://www.fixatedthreat.com/

Fletcher, D., & Sakar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist, 18*(1), 12-23. http://dx.doi.org/10.1027/1016-9040/a000124

Foa, E. B., Riggs, D. S., & Gershuny, B. S. (1995). Arousal, numbing, and intrusion: Symptom structure of PTSD following assault. *American Journal of Psychiatry, 152*(1), 116-120.

Foa, E. B., Rothbaum, B. O., Riggs, D. S., & Murdock, T. B. (1991). Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive-behavioral procedures and counselling. *Journal of Consultanting and Clinical Psychology, 59*(5), 715-723

Fombourne, E. (2009). Epidemiology of pervasive developmental disorders. *Pediatric Research, 65*(6), 591-598. http://dx.doi.org/10.1203/PDR.0b013e31819e7203

Fossi, J. J., Clarke, D. D., & Lawrence, C. L. (2005). Bedroom rape: Sequences of sexual behavior in stranger assaults. *Journal of Interpersonal Violence, 20*(11), 1444-1466. http://dx.doi.org/10.1177/0886260505278716

Fougere, A., & Daffern, M. (2011). Resilience in young offenders. *International Journal of Forensic Mental Health, 10*(3), 244-253.

Fowler, N., Chambers, M., & Gatherer, A. (2016). *Complex mental health, psychological and behavioural difficulties and problematic social backgrounds in Channel referrals in England and Wales.* (Unpublished Manuscript). Birmingham and Solihull Mental Health Trust

Friedland, N. (1992). Becoming a Terrorist: Social and Individual Antecedents. In L. Howard (Ed.), *Terrorism: Roots, Impact, Responses*. New York, NY: Praeger.

Fulton, K. (2008). *Unsung hero: How I saved dozens of lives as a secret agent inside the IRA.* London, England: John Blake Publishing.

Gaebel, W., Zäske, H., & Baumann, A. E. (2006). The relationship between mental illness severity and stigma. *Acta Psychiatrica Scandinavica, 113*(S429), 41-45. http://dx.doi.org/10.1111/j.1600-0447.2005.00716.x

Galea, S., Ahern, J., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (2002). Psychological sequalae of the September 11 terrorist attacks in New York City. *New England Journal of Medicine, 346*(13), 982-987.

Garmezy, N. (1983). Stressors of childhood. In G. Norman, & M. Rutter (Eds.), *Stress, coping, and development in children* (pp. 43-84). Blatimore, MD: Johns Hopkins University Press.

Gelberg, L., Linn, L. S., & Leake, B. D. (1988). Mental health, alcohol and drug use, and criminal history among homeless adults. *American Journal of Psychiatry, 145*(2), 191-196

Gerwehr, S., & Daly, S. (2006). *Al-Qaida: Terrorist selection and recruitment.* Santa Monica, CA: RAND

Gibbs, J. P. (1989). Conceptualization of terrorism. *American Sociological Review, 54*(3), 329-340.

Giebels, E., & Taylor, P. J. (2009). Interaction patterns in crisis negotiations: Persuasive arguments and cultural differences. *Journal of Applied Psychology, 94*(1), 5-19. http://dx.doi.org/10.1037/a0012953

Gill, P. (2007). A Multi-Dimensional Approach to Suicide Bombing. *International Journal of Conflict and Violence, 1*(2), 142-159.

Gill, P. (2015). *Lone-actor terrorists: A behavioural analysis*. Oxon, England: Routledge.

Gill, P., Horgan, J. (2013). Who were the volunteers? The shifting sociological and operational profile of 1240 Provisional Irish Republican Army members. *Terrorism and Political Violence, 25*(3), 435-456. http://dx.doi.org/10.1080/09546553.2012.664587

Gill, P., Horgan, J., & Deckert, P. (2014). Bombing alone: Tracing the motivations and antecedent behaviors of lone-actor terrorists. *Journal of Forensic Sciences, 59*(2), 425-435. http://dx.doi.org/10.1111/1556-4029.12312

Global Terrorism Database. (n.d.). *The Global Terrorism Database.* Retrieved from https://www.umd.edu/gtd/

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NY: Prentice Hall

Giorgio. (2003). *Memoirs of an Italian terrorist.* New York, NY: Carroll & Graf.

Goenjian, A. K., Steinberg, A. M., Najarian, L. M., Fairbanks, L. A., Tashjian, M., & Pynoss, R. S. (2000). Prospective study of posttraumatic stress, anxiety, and depressive reactions after earthquake and political violence. *American Journal of Psychiatry, 157*(6), 911-916

Gómez, Á., Morales, J. F., Hart, S., Vásquez, A., & Swann, W. B. (2011). Rejected and excluded forevermore, but even more devoted irrevocable ostracism intensifies loyalty to the group among identity-fused persons. *Personality and Social Psychology Bulletin, 37*(12), 1574-1586.

Gooding, P. A., Hurst, A., Johnson, J., & Tarrier, N. (2012). Psychological resilience in young and older adults. *International Journal of Geriatric Psychiatry, 27*(3), 262-270. http://dx.doi.org/10.1002/gps.2712

Gordijn, E. H., Yzerbyt, V., Wigboldus, D., & Dumont, M. (2006). Emotional reactions to harmful intergroup behavior. *European Journal of Social Psychology, 36*(1), 15-30. http://dx.doi.org/10.1002/ejsp.296

Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime.* Stanford, CT: Stanford University Press.

Gottman, J., Markman, H., & Notarius, C. (1977). The topography of marital conflict: A sequential analysis of verbal and nonverbal behavior. *Journal of Marriage and Family, 39*(3), 461-477.

Gottschalk, M., & Gottschalk, S. (2004). Authoritarianism and pathological hatred: A social psychological profile of the Middle Eastern terrorist. *The American Sociologist, 35*(2), 38-59.

Grant, K. E., Compas, B. E., Thurm, A. E., McMahon, S. D., Gipson, P. Y., Campbell, A. J., … & Westerholm, R. I. (2006). Stressors and child and adolescent psychopathology: Evidence of moderating and mediating effects. *Clinical Psychology Review, 26*(3), 257-283

Grathwohl, L. (1976). *Bringing down America: An FBI informer with the Weathermen.* New Rochelle, NY: Arlington House.

Grubin, D. H. (1991). Unfit to plead in England and Wales, 1976-88: A survey. *British Journal of Psychiatry, 158*(4), 540-548.

Gruenewald, J., Chermak, S., & Freilich, J. D. (2013). Distinguishing "Loner" Attacks from Other Domestic Extremist Violence. *Criminology & Public Policy, 12*(1), 65-91. doi: 10.1111/1745-9133.12008

Gruenewald, J., & Pridemore, W. A. (2012). A Comparison of Ideologically-Motivated Homicides from the New Extremist Crime Database and Homicides from the Supplementary Homicide Reports Using Multiple Imputation by Chained Equations to Handle Missing Values. *Journal of Quantitative Criminology, 28*(1), 141-162.

Gunaratna, R. (2009). The battlefield of the mind: Rehabilitating Muslim terrorists. *UNISCI Discussion Papers, 21*, 148-163.

Gunning, J. (2007). A case for critical terrorism studies? *Government and Opposition, 42*(3), 363-383. http://dx.doi.org/10.1111/j.1477-7053.2007.00228.x

Gupta, D. K. (2012). The leadership puzzle in terrorism study. In U. Kumar, & M. K. Mandal (Eds.) *Countering terrorism: Psychosocial strategies* (pp. 143-160). New Delhi, India: SAGE Publications

Gutheil, T. G., & Simon, R. I. (2004). Avoiding bias in expert testimony. *Psychiatric Annals, 34*(4), 260-270. http://dx.doi.org/10.3928/0048-5713-20040401-06

Gürerk, Ö., Irlenbusch, B., & Rockenbach, B. (2006). The competitive advantage of sanctioning institutions, *Science, 312*, 108-111

Guze, S. B., Goodwin, D. W., & Crane, J. B. (1969). Criminality and Psychiatric Disorders. *Archives of General Psychiatry, 20*(5), 583-591. http://dx.doi.org/10.1001/archpsyc.1969.01740170087013

Häfner, H., & Boker, W. (1982). *Crimes of violence by mentally abnormal offenders: A psychiatic and epidemioloical study in the Federal Republic of Germany.* Cambridge, England: Cambridge University Press.

Hansen, A. (2002). *Direct Action: Memoirs of an urban guerilla.* Toronto, Ontario: Between the Lines.

Hare, R. D. (1985). Comparison procedures for the assessment of psychopathy. *Journal of Consulting and Clinical Psychology, 53*(1), 7-16.

Haslam, S. A., O'Brien, A., Jetten, J., Vormedal, K., & Penna, S. (2005). Taking the strain: Social identity, social support, and the experience of stress. *British Journal of Social Psychology, 44*(3), 355-370. http://dx.doi.org/10.1348/014466605X37468

Haslam, S. A., & Reicher, S. (2006). Stressing the group: Social identity and the unfolding dynamics of responses to stress. *Journal of Applied Psychology, 91*(5), 1037-1052. http://dx.doi.org/10.1037/0021-9010.91.5.1037

Hassell, C. V. (1977). Terror: The crime of the privileged- an examination and prognosis. *Terrorism, 1*(1), 1-16. http://dx.doi.org/10.1080/10576107708435393

Hassellbach, I. (1996). *Führer-Ex: Memoirs of a former Neo-Nazi.* New York, NY: Random House.

Hecker, T., Hermaneau, K., Maedl, A., Hinkel, H., Schauer, M., & Elbert, T. (2013). Does perpetrating violence damage mental health? Differences between forcibly recruited and voluntary combatants in DR Congo. *Journal of Traumatic Stress, 26*(1), 142-148. http://dx.doi.org/10.1002/jts.21770

Hegghammer, T. (2008). Terrorist recruitment and radicalization in Saudi Arabia. *Middle East Policy, 13*(4), 39-60

Hegghammer, T. (2012). The recruiter's delimma: Signalling and rebel recruitment tactics. *Journal of Peace Research, 50*(1), 3-16. http://dx.doi.org/10.1177/0022343312452287

Herman, J. L. (1986). Histories of Violence in an outpatient population: An exploratory study. *American Journal of Othopsychiatry, 56*(1), 137-141.

Herman, J. L. (1992). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *Journal of Traumtic Stress, 5*(3), 377-391. http://dx.doi.org/10.1002/jts.2490050305

Herman-Stahl, M., & Petersen, A. C. (1996). The protective role of coping and social resources for depressive symptoms among young adolescents. *Journal of Youth and Asolescencem 25*(6), 733-753. http://dx.doi.org/10.1007/BF01537451

Hermenau, K., Hecker, T., Maedl, A., Schauer, M., Elbert, T. (2013). Growing up in armed groups: Trauma and aggression among child soldiers in DR Congo. *European Journal of Psychotraumatology, 4*(21408), 1-9. http://dx.doi.org/10.3402/ejpt.v4i0.21408

Hewitt, C. (2003). *Understanding terrorism in America*. New York, NY: Routledge.

Hiday, V. A., & Burns, P. J. (2010). Mental illness and the criminal justice system. In T. L. Scheid & T. N. Brown (Eds.), *A handbook for the study of mental health: Social contexts, theories and systems* (2nd Ed. pp. 478-498). Cambridge, England: Cambrige University Press.

Hinshaw, S. P., & Stier, A. (2008). Stigma as related to mental disorders. *Annual Review of Clinical Psychology, 4*, 367-393. http://dx.doi.org/10.1146/annurev.clinpsy.4.022007.141245

H.M. Government. (2011, June). *Prevent strategy*. Retrieved from https://www.gov.uk

H.M. Government. (2011a, July). *CONTEST: The United Kingdom's strategy for countering terrorism*. Retrieved from https://www.gov.uk

H.M. Government. (2015). *Channel duty guidance: Protecting vulnerable people from being drawn into terrorism, statutory guidance for Channel panel members and partners of local panels*. Retrieved from https://www.gov.uk

Hobfoll, S. E., Cenetti-Nisim, D., & Johnson, R. J. (2006). Exposure to terrorism, stress-related mental health symptoms, and defensive coping among Jews and Arabs in Israel. *Journal of Consulting and Clinical Psychology, 74*(2), 207-218. http://dx.doi.org/10.1037/0022-006X.74.2.207

Hodgins, S. (1992). Mental disorder, intellectual deficiency, and crime. Evidence from a birth cohort. *Archives of General Psychiatry, 49*(6), 476-483.

Hodgins, S. (2008). Violent behaviour among people with schizophreia: A framework for investigations of causes, and effective treatment, and prevention. *Philosophical Transactions of the Royal Society B: Biological Sciences, 363*(1503), 2505-2518.

Hodgins, S., Cree, A., Alderton, J., & Mak, T. (2008). From conduct disorder to severe mental illness: Associations with aggressive behaviour, crime and victimisation. *Psychological Medicine, 38*(7), 975-987. http://dx.doi.org/10.1017/S00332917070021

Hoek, H. W. (2006). Incidence, prevalence and mortality of anorexia nervosa and other eating disorders. *Current Opinions in Psychiatry, 19*(4), 389-394. http://dx.doi.org/10.1097/01.yco.0000228759.95237.78

Hoelz, M. (1930). *From white cross to red flag: The autobiography of Max Hoelz, waiter, soldier, revolutionary leader*. London, England: Jonathan Cape.

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*(1), 13-22. http://dx.doi.org/10.1056/NEJMoa040603

Hogg, M. A., & Vaughan, G. M. (2005). *Social psychology*. London, England: Prentice Hall.

Holcomb, W. R., & Ahr, P. R. (1988). Arrest rates among young adult psychiatric patients treated in inpatient and outpatient settings. *Hospital and Community Psychiatry, 39*(1), 52-57.

Horgan, J. (2003). The search for the terrorist personality. In. A. Silke (Ed.), *Terrorists, victims and society: Psychological perspectives on terrorism and its consequences* (pp.3-27). Chichester, England: Wiley.

Horgan, J. (2004). The case for firsthand research. In A. Silke (Ed.), *Research on terrorism: Trends, achievements and failures* (pp. 30-56). London, England: Frank Cass.

Horgan, J. (2005). *The Psychology of Terrorism*. Abingdon, UK: Oxon, England: Routledge.

Horgan, J. (2008). Deradicalization or disengagement? A process in need of clarity and a counterterrorism initiative in need of evaluation. *Perspectives on Terrorism, 2*(4), 3-8.

Horgan, J. (2009). *Walking away from terrorism: Accounts of disengagement from radical and extremist movements.* Routledge

Horgan, J. (2012). Interviewing the terrorists: Reflections on fieldwork and implications for psychological research. *Behavioral Science of Political Aggression and Terrorism, 4*(3), 195-211.

Horgan, J. (2014). *The psychology of terrorism* (2nd Ed.) Oxon, England: Routledge.

Horgan, J., Gill, P., Bouhna, N., Silver, J., Corner, E. (2016). *Across the universe? A comparative analysis of violent behavior and radicalization across three offender types with implications for criminal justice training and education.* (Report number 249937). Washington DC: National Institute of Justice.

Huang, Y., Kotov, R., Girolamo, G., Preti, A., Angermeyer, M., Benjet, C., … Kessler, R. C. (2009). DSM-IV personality disorder in the WHO World Mental Health Surveys. *The British Journal of Psychiatry, 195*(1), 46-53. http://dx.doi.org/10.1192/bjp.bp.108.058552

Huddy, L. (2001). From social to political identity: A critical examination of social identity theory. *Political Psychology, 22*(1), 127-156.

Hudson, R. A., & Majeska, M. (1999). *The sociology and psychology of terrorism: Who becomes a terrorist and why?* Library of Congress, Washington, DC: Federal Research Division.

Hugenberg, K., & Bodenhausen, G. V. (2004). Category membership moderates the inhibition of social identities. *Journal of Experimental Social Psychology, 40*(2), 233-238

Husain, E. (2007). *The Islamist: Why I joined radical Islam in Britain, what I saw inside and why I left.* London, England: Penguin Books.

Husserl, E. (1970). The crisis of European sciences and transcendental phenomenology: An introduction to phenomenology. Evanston, IL: Northwestern University Press.

Iannaccone, L. R. (2006). The market for martyrs. *Interdisciplinary Journal of Research on Religion, 2*(4), 1-29.

Institute for Economics and Peace. (2016). *Global terrorism index: Measuring and understanding the impact of terrorism.* Retrieved from economicsandpeace.org

Iyad, A. (1978). *My home, my land.* New York, NY: Times Books.

Iyer, A., Leach, C. W., & Crosby, F. J. (2003). White guilt and racial compensation: The benefits and limits of self-focus. *Personality and Social Psychology Bulletin, 29*(1), 117-129. http://dx.doi.org/10.1177/0146167202238377

Itote, W. (1967). *'Mau Mau' General.* Nairobi, Kenya: East African Publishing House.

Jackson, B. A. (2009). Organizational Decisionmaking by Terrorist Groups. In P. K. Davis & K. Cragin (Eds.), *Social Science for Counterterrorism: Putting the Pieces Together* (pp. 209-256). Santa Monica, CA: RAND Corporation.

Jacques, K. (2010). *An exploration of female mobilisation into terrorism*. (Unpublished Doctoral Thesis, University of Lancaster, UK).

Jacques, K., & Taylor, P. J. (2007). *Pathways to suicide terrorism: Do women follow in men's footsteps?* Poster presented at the BPS Division of Social Psychology conference, Kent (September).

Jäger, H., Schmidtchen, G., & Süllwold, L. (1981.). *Lebenslaufanalysen* (L. Böllinger Ed. Vol. 2). Opladen: Westdeutscher Verlag.

James, D. V., Mullen, P. E., Meloy, J. R., Pathe, M. T., Farnham, F. R., Preston, L., & Darnley, B. (2007). The role of mental disorder in attacks on European politicians 1990-2004. *Acta Psychiatr Scand, 116*(5), 334-344. doi: 10.1111/j.1600-0447.2007.01077.x

Jemelka, R., Trupin, E., & Chiles, J. A. (1989). The mentally ill in prisons: A review. *Hospital and Community Psychiatry, 40*(5), 481-491.

Jamieson, R., Shirlow, R., & Grounds, A. (2010). *Ageing and social exclusion among former politically motivated prisoners in Northern Ireland.* Report for the Changing Ageing Partnership, Institute of Governance, School of Law, Queens University Belfast.

Johnson, P. W., & Feldman, T. B. (1992). Personality types and terrorism: Self psychology and perspectives. *Forensic Reports, 5*(4), 293-303.

Jones, E., & Bhui, K. (2008). The new ethics of research into terrorism. BMJ, 337(a3069). http://dx.doi.org/10.1136/bmj.a3069

Jones, K. (1993). *Asylums and after: A revised history of the mental health services: From the early 18th century to the 1990s.* London, England: Athlone Press.

Jones, S. G., & Libicki, M. C. (2008). *How terrorist groups end: Lessons for countering al Qa'ida.* Santa Monica, CA: RAND

Jordan, K. B., Schlenger, W. E., Hough, R. H., Kulka, R. A., Weiss, D., Fairbank, J. A., & Marmar, C. R. (1991). Lifetime and current prevalence of specific psychiatric disorders among Vietnam veterans and controls. *Archives of General Psychiatry, 48*(3), 207-215. http://dx.doi.org/10.1001/archpsyc.1991.01810270019002

Joyal, C. C., Côté, G., Meloche, J., & Hodgins, S. (2011). Severe mental illness and aggressive behavior: On the importance of considering subgroups. *International Journal of Forensic Mental Health, 10*(2), 107-117. http://dx.doi.org/10.1080/14999013.2011.577136

Kaggia, B. (1975). *Roots of freedom: The autobiography of Bildad Kaggia.* Nairobi, Kenya: East African Publishing House.

Kaniasty, K., & Norris, F. H. (2008). Longitudinal linkages between perceived social support and posttraumatic stress symptoms: Sequential roles of social causation and social selection. *Journal of Trauma and Stress, 21*(3), 274-281. http://dx.doi.org/10.1002/jts.20334.

Kaplan, A. (1978). The psychodynamics of terrorism. *Terrorism, 1*(3-4), 237-254. http://dx.doi.org/10.1080/10576107808435411

Kariuki, J. M. (1975). *Mau Mau detainee: The account by a Kenyan African of his experiences in detention camps 1953-1960.* Nairobi, Kenya: Oxford University Press.

Kavanagh, J. (2011). Selection, availability, and opportunity: The conditional effect of poverty on terrorist group participation. *Journal of Conflict Resolution, 55*(1), 106-132. http://dx.doi.org/10.1177/0022002710374713.

Keane, T. M., Scott, W. O., Chavoya, G. A., Lamparski, D. M., & Fairbank, J. A. (1985). Social support in Vietnam veterans with posttraumatic stress disorder: A comparative analysis. *Journal of Consulting & Clinical Psychology, 53*(1), 95-102

Kellen, K. (1979). *Terrorists- what are they like? How some terrorists describe their world and actions* (RAND Publication N-1300-SL). Santa Monica, CA: RAND.

Kellen, K. (1982). *On terrorists and terrorism: A RAND note*. Santa Monica, CA: RAND.

Kent, I., & Nicholls, W. (1977). The psychodynamics of terrorism. *Mental Health and Society, 1*(2), 1-8.

Kessler, R. C., Angermeyer, M., Anthony, J. C., de Graaf, R., Demyttenaere, K., Gasquet, I., … Üstün, T. B. (2007). Lifetime Prevalence and Age-of-Onset Distributions of Mental Disorders in the World Health Organization's World Mental Health Survey Initiative. *World Psychiatry 6*(3), 168–176.

Kessler, R. C., Aguilar-Gaxiola, S., Alonso, J., Angermeyer, M., Anthony, J. C., Beglund, P., … Üstün, T.B. (2008). Lifetime prevalence and age of onset distributions of mental disorders in the world mental health survey initiative. In R.C. Kessler, & T.B. Üstün *The WHO world mental health surveys: Global perspectives on the epideminology of mental disorders* (pp. 511-521. Cambridge, England: Cambridge University Press.

Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity and comorbidity of 12-month DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry, 62*(6), 617-209.

Kessler, R. C., Price, R. H., & Wortman, C. B. (1985). Social factors in psychopathology: Stress, social support, and coping processes. *Annual Review of Psychology, 36*(1), 531-572

Kessler, R. C., & Üstün, T.B. (2008). *The WHO world mental health surveys: Global perspectives on the epideminology of mental disorders*. Cambridge, England: Cambridge University Press.

Khan, A. A., Jacobson, K. C., Gardner, C. O., Prescott, C. A., & Kendler, K. S. (2005). Personality and Comorbidity of Common Psychiatric Disorders. *British Journal of Psychiatry, 186*(3), 190-196. http://dx.doi.org/10.1192/bjp.186.3.190

Klandermans, B., & Oegema, D. (1987). Potentials, networks, motivations, and barriers: Steps towards participation in social movements. *American Sociological Association, 52*(4), 519-531.

Kohut, H. (1972). Thoughts on narcissism and narcissistic rage. *Psychoanalytic Study of the Child, 27*, 360-400.

Kohut, H. (1978). *The search for the self.* New York, NY: International Universities Press.

Kotler, M., Iancu, I., Efroni, R., & Amir, M. (2001). Anger, impulsivity, social support, and suicide risk in patients with posttraumatic stress disorder. *Journal of Nervous and Mental Disease, 189*(3), 162-167

Krakowski, M., Jaeger, J., & Volavka, J. (1988). Violence and psychopathology: A longitudinal study. *Comprehensive Psychiatry, 29*(2), 174-181.

Krakowski, M., Volavka, J., & Brizer, D. (1986). Psychopathology and violence: A review of the literature. *Comprehensive Psychiatry, 27*(2), 131-148. http://dx.doi.org/10.1016/0010-440X(86)90022-2

Krippendorff, K. (2004). Reliability in content analysis: Some common misconceptions and recommendations. *Human Communication Research, 30*(3), 411-433. http://dx.doi.org/10.1111/j.1468-2958.2004.tb00738.x

Kruglanski, A. W., Chen, X., Dechesne, M., Fishman, S., & Orehek, E. (2009). Fully committed: Suicide bombers' motivation and the quest for personal significance. *Political Psychology, 30*(3), 331-357.

Kruglanski, A. W., & Fishman, S. (2006). The psychology of terrorism: "Syndrome" versus "tool" perspectives. *Terrorism and Political Violence, 18*(2), 193-215. http://dx.doi.org/10.1080/09546550600570119

Kruglanski, A. W., & Fishman, S. (2009). Psychological factors in terrorism and counterterrorism: Individual, group, and organizational levels of analysis. *Social Issues and Policy Review, 3*(1), 1-44.

LaFree, G., Dugan, L. (2007). Introducing the Global Terrorism Database. *Terrorism and Political Violence, 19*(2), 181-204. http://dx.doi.org/10.1080/09546550701246817

La Greca, A. M., Silverman, W. K., Vernberg, E. M., & Prinstein, M. J. (1996). Symptoms of posttraumatic stress in children after Hurricane Andrew: A prospective study. *Journal of Consulting and Clinical Psychology, 64*(4), 712-723. http://dx.doi.org/10.1037/0022-006X.64.4.712

Lakhani, S. (2013). *Radicalisation as a Moral Career* (Doctoral Dissertation, School of Social Sciences, Cardiff University)

Lamb, H. R., & Weinberger, L. E. (1998). Persons with severe mental illness in jails and prisons: A review. *Psychiatric Services, 49*(4), 483-492.

Lauber, C., Nordt, C., Falcato, L., & Rössler, W. (2004). Factors influencing social distance toward people with mental illness. *Community Mental Health Journal, 40*(3), 265-274.

Le Blanc, J. (2012). *Political violence in Latin America: A cross-case comparison of the urban insurgency campaigns of Montoneros, M-19 and FSLN in a historical perspective.* Newcastle upon Tyne, England: Cambridge Scholars Publishing

Leiken, R. S. (2004). *Bearers of global jihad? Immigration and national security after 9/11.* Washington, DC: The Nixon Center.

Leistedt, S. J. (2013). Behavioural aspects of terrorism. *Forensic Science International, 228*(1-3), 21-27. http://dx.doi.org/10.1016/j.forsciint.2013.02.004

Leskela, J., Diepernik, M., & Thuras, P. (2002). Shame and posttraumatic stress disorder. *Journal of Traumatic Stress, 15*(3), 223-226

Lester, D., Yang, B., & Lindsay, M. (2004). Suicide bombers: Are psychological profiles possible? *Studies in Conflict & Terrorism, 27*(4), 283-295. http://dx.doi.org/10.1080/10576100490461033

LexisNexis. (n.d.). *Nexis Power Search*. Retrieved from http://www.lexisnexis.com

Leyden, T. J., & Cook, B. M. (2008). *Skinhead confessions: From hate to hope*. Springville, UT: Sweetwater Books.

Li, X., Howard, D., Stanton, B., Rachuba, L., & Cross, S. (1998). Distress symptoms among urban African American children and adolescents: A psychometric evaluation of the checklist of children's distress symptoms. *Archives of Pediatric and Adolescent Medicine, 152*(6), 569-577.

Li, X., Stanton, B., Pack, R., Harris, C., Cottrell, L., & Burns, J. (2002). Risk and protective factors associated with gang involvement among urban African American adolescents. *Youth & Society, 34*(2), 172-194. http://dx.doi.org/10.1177/004411802237862

Lifton, R. J. (2000). *Destroying the world to save it: Aum Shinrikyo, apocalyptic violence, and the new global terrorism*. New York, NY: Holt.

Lifton, R. J. (2004). Aum Shinrikyo: The threshold crossed. *Journal of Aggression, Maltreatment & Trauma, 9*(1-2), 57-66.

Lindqvist, P., & Allebeck, P. (1989). Schizophrenia and assaultive behaviour: The role of alcohol and drug abuse. *Acta Psychiatrica Scandinavica, 82*(3), 191-195.

Lindqvist, P., & Allebeck, P. (1990). Scizophrenia and crime: A longitudinal follow-up of 644 schizophrenics in Stockholm. *British Journal of Psychiatry, 157*(3), 345-350. http://dx.doi.org/10.1192/bjp.157.3.345

Link, B. G., Andrews, H., & Cullen, F. T. (1992). The violent and illegal behavior of mental patients reconsidered. *American Sociological Review, 57*(3), 275-292. http://dx.doi.org/10.2307/2096235

Link, B. G., Struening, E. L., Neese-Todd, S., Asmussen, S., & Phelan, J. C. (2001). Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illness. *Psychiatric Services, 52*(12), 1621-1626.

Link, B. G., Stueve, A. (1994). Psychotic symptoms and the violent/illegal behavior of mental patients compared to community controls. In J. Monahan, & H. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 137-159). Chicago, IL: University of Chicago Press.

López-Rey, M. (1970). *Crime: An analytical appraisal*. London, England: Routledge & Kegan Paul

Lubit, R. H., Bonds, C. L., & Lucia, M. A. (2015). *Sleep Disorders*. Medscape, last modified 28 January 2015. Retrieved from http://emedicine.medscape.com (accessed 27 September 2015).

Lum, C., Kennedy, L. W., & Sherley, A. (2006). Are counter-terrorism stategies effective? The results of the Campbell systematic review on count-terrorism evaluation research. *Journal of Experimental Criminology, 2*(4), 489-516. http://dx.doi.org/10.1007/s11292-006-9020-y

Lutz, J. M., & Lutx, B. (2013). *Global terrorism* (3rd Ed.). Oxon, England: Routledge.

Lyons, H. A., & Harbinson, H. J. (1986). A comparison of political and non-political murderers in Northern Ireland, 1974-1984. *Medical Science and the Law, 26*(3), 193-198. http://dx.doi.org/10.1177/002580248602600304

Mackie, D. M., Silver, L. A., & Smith, E. R. (2004). Intergroup emotions: Emotion as an intergroup phenomenon. In L. Z. Tiedens, & C. W. Leach (Eds.), *The social life emotions.* (pp. 227-245). Cambridge, England: Cambridge University Press.

Mandela, N. (1995). *Long walk to freedom.* London, England: Abacus.

Mathu, M. (1974). *The urban guerrilla: The story of Mohamed Mathu.* Richmond, B.C., Canada: LSM Press

Martell, D. A. (1991). Homeless mentally disordered offenders and violent crimes: Preliminary research findings. *Law & Human Behavior, 15*(4), 333-347.

Martin, J. K., Pescosolido, A., & Tuch, S. A. (2000). Of fear and loathing: The role of 'disturbing behavior,' labels, and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior, 4*(2), 208-223.

McDonald, G. (2016, October 31). Mum of Plymouth nail bomber Nicky Reilly says he son has been "set free from pain and suffering". *The Herald.* Retrieved from www.plymouthherald.co.uk

McCauley, C. (2002). Psychological Issues in Understanding Terrorism and the Response to Terrorism. In C. E. Stout (Ed.), *The Psychology of Terrorism: Theoretical Understandings and Perspective* (Vol. III, pp. 3-29). Westport, CT: Praeger Publishers.

McCauley, C., & Moskalenko, S. (2008). Mechanisms of political radicalization: Pathways toward terrorism. *Terrorism and political violence, 20*(3), 415-433. http://dx.doi.org/10.1080/09546550802073367

McCauley, C., Moskalenko, S., & Van Son, B. (2013). Characteristics of lone-wolf violent offenders: A comparison of assassins and school attackers. *Perspectives on Terrorism, 7*(1), 4-24

McDonald, K. (2013). *Our violent world: Terrorism in Society.* London, England: Palgrave Macmillan

McEvoy, K., Shirlow, P., & McElrath, K. (2004). Resistance, transition and exclusion: Politically motivated ex-prisoners and conflict transformation in Northern Ireland. *Terrorism and Political Violence, 16*(3), 646-670. http://dx.doi.org/10.1080/09546550490509991

McFarland, B. H., Faulkner, L. R., Bloom, J. D., Hallaux, R., & Bray, J. D. (1989). Chronic mental illness and the criminal justice system. *Hospital and Community Psychiatry, 40*(7), 718-723.

McGuire, M. (1973). *To take arms: A year in the Provisional IRA.* London, England: Macmillan

Melick, M. E., Steadman, H. J., & Cocozza, J. J. (1979). The medicalization of criminal behavior among mental patients. *Journal of Health and Social Behavior, 20*(3), 228-237.

Meloy, J. R., Hempel, A. G., Gray, B. T., Mohandie, K., Shiva, A., & Richards, T. C. (2004). A comparative analysis of North American adolescent and adult aass murderers. *Behavioral Sciences and the Law, 22*(3), 291-309. http://dx.doi.org/10.1002/bsl.586

Meloy, J. R., Hempel, A. G., Mohandie, K., Shiva, A. A., & Gray, T. (2001). Offender and offense characteristics of a nonrandom sample of adolescent mass murderers. *Journal the American Academy of Child and Adolescent Psychiatry, 40*(6), 719-728. http://dx.doi.org/10.1097/00004583-200106000-00018

Meloy, J. R., James, D. V., Farnham, F. R., Mullen, P. E., Pathe, M. T., Darnley, B., & Preston, L. (2004). A Research Review of Public Figure Threats, Approaches, Attacks and Assassinations in the United States. *Journal of Forensic Science, 49*(5), 1-8.

Merari, A. (1990). The readiness to kill and die: Suicidal terrorism in the Middle East. In W. Reich (Ed.), *Origins of terrorism* (pp. 192-208). Washington, DC: Woodrow Wilson Center Press

Merari, A. (2010). *Driven to death: Psychological and social aspects of suicide terrorism.* Oxford, England: Oxford University Press.

Merari, A., Dimant, I., Bibi, A., Broshi, Y., & Zakin, G. (2009). Personality characteristics of "self martyrs"/"suicide bombers" and organizers of suicide attacks. *Terrorism and Political Violence, 22*(1), 87-101. http://dx.doi.org/10.1080/09546550903409312

Merari, A., Fighel, J., Ganor, B., Lavie, E., Tzoreff, Y., & Livne, A. (2009). Making Palestinian "martyrdom operations"/"suicide attacks": Interviews with would-be perpetrators and organizers. *Terrorism and Political Violence, 22*(1), 102-119. http://dx.doi.org/10.1080/09546550903409403

Merari, A. (2012). Studying suicide bombers: A response to Brym and Araj's critique. *Studies in Conflict and Terrorism, 35*(6), 444-455. http://dx.doi.org/10.1080/1057610X.2012.675553

Michaels, A. (2010). *My life after hate*. Milwaukee, WI: La Prensa de LAH.

Milgram, S. (1963). Behavioral Study of Obedience. *Journal of Abnormal of Social Psychology, 67*(4), 371-378.

Miller, E. (2012). Patterns of onset and decline among terrorist organizations. *Journal of Quantitative Criminology, 28*(1), 77-101. http://dx.doi.org/10.1007/s10940-011-9154-6

Milliken, C. S., Auchterlonie, J. L., & Hoge, C. W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *JAMA, 298*(18), 2141-2148

Ministry of Justice. (2012). *MAPPA guidance: Version 4*. Retrieved from http://www.justice.gov.uk/downloads/offenders/mappa/mappa-guidance-2012-part1.pdf

Modestin, J., & Ammann, R. (1996). Mental disorder and criminality: Male schizophrenia, *Schizophrenia Bulletin, 22*(1), 69-82.

Moghaddam, F. M. (2005). The staircase to terrorism: A psychological exploration. *American Psychologist, 60*(2), 161-169. http://dx.doi.org/10.1037/0003-066X.60.2.161

Moloney, E. (2010). *Voices from the grave: Two men's war in Ireland.* London, England: Faber and Faber

Monahan, J. (1973). The psychiatrization of criminal behavior: A reply. *Hospital and Community Psychiatry, 24*(2), 105-107.

Monahan, J. (1997). Clinical and actuarial predictions of violence. In D. Faigman, D. Kaye, M. Saks et al. (Vol 1, pp. 300-318), *Modern scientific evidence: The law and science of expert testimony*. St Paul, MN: West Publishing Company.

Monahan, J. (2012). The individual risk assessment of terrorism. *Psychology, Public Policy, and Law, 18*(2), 167-205

Monahan, J. (2015). The individual risk assessment of terrorism: Recent Developments. *Virginia Public Law and Legal Theory Research Paper No.57.* http://dx.doi.org.10.2139/ssrn.2665815

Monahan, J., & Steadman, H. J. (1983). Crime and mental disorder: An epidemiological approach. In M. Torny, & N. Morris (Eds.), *Crime and justice: An annual review of research.* (pp. 145-189). Chicago, IL: University of Chicago Press

Monahan, J., Steadman, H. J., Silver, E., Appelbaum, P. S., Clark Robbins, P., Mulvey, E. P., Roth, L. H., … Banks, S. (2001). *Rethinking risk assessment: The Macarthur study of mental disorder and violence.* Oxford, England: Oxford University Press.

Morf, G. (1970). *Terror in Quebec: Case studies of the FLQ*. Toronto, Canada: Clarke, Irwin.

Mother Jones. (2013). *Profiles in terror*. Retrieved from https://www.motherjones.com

Muchai, K. (1973). *Life histories from the revolution, Kenya: Mau Mau #1: The hardcore: The story of Karigo Muchai.* Richmond, B.C., Canada: LSM Press

Muldoon, O. T., & Downes, C. (2007). Social identification and post-traumatic stress symptoms in post-conflict Northern Ireland. *British Journal of Psychiatry, 191*(2), 146-149. http://dx.doi.org/10.1192/bjp.bp.106.022038

Muldoon, O. T., & Lowe, R. D. (2012). Social identity, groups, and post-traumatic stress disorder. *Political Psychology, 33*(2), 259-273. http://dx.doi.org/10.1111/j.1467-9221.2012.00874.x

Muldoon, O. T., Schmid, K., & Downes, C. (2009). Political violence and psychological well-being: The role of social identity. *Applied Psychology: An International Review, 58*(1), 129-145. http://dx.doi.org/10.1111/j.1464-0597.2008.00385.x

Muldoon, O. T., & Wilson, K. (2001). Ideological commitment, experiences of conflict and adjustment in Northern Irish adolescents. *Medicine, Conflict and Survival, 17*(2), 112-124

Mullins, S. (2009.). Terrorist networks and small group psychology. In D. Canter (Ed.), *The faces of terrorism: Multidisciplinary perspectives,* (pp. 137-150). Chichester, England: Wiley.

Mullins, S. (2010). Rehabilitation of Islamist terrorists: Lessons from criminology. Dynamics of Asymmetric Conflict, 3(3), 162-193. http://dx.doi.org/10.1080/17467586.2010.528438

Mulvey, E. P. (1994). Assessing the evidence of a link between mental illness and violence. *Hospital and Community Psychiatry, 45*(7), 663-668.

Muriithi, K. (1971). *War in the forest: The autobiography of a Mau Mau leader.* Nairobi, Kenya: East African Publishing House.

Murrie, D. C., Boccaccini, M. T., Guarnera, L. A., & Rufino, K. A. (2013). Are forensic experts biased by the side that retained them? *Psychological Science, 20*(10), 1-9. http://dx.doi.org/10.1177/0956797613481812

Nasiri, O. (2006). *Inside the global jihad: How I infiltrated Al Qaeda and was abandoned by Western intelligence.* London, England: C. Hurst.

Neuner, F., Pfeiffer, A., Schauer-Kaiser, E., Odenwald, M., Elbert, T., & Ertl, V. (2012). Haunted by ghosts: Prevalence, predictors and outcomes of spirit possession experiences among former child soldiers and war-affected civilians in Northern Uganda. *Social Science & Medicine, 75*(3), 548-554. http://dx.doi.org/10.1016/j.socscimed.2012.03.028

O'Gorman, R. (2010). The evolutionary logic of terrorism: Understanding why terrorism is an inevitable human strategy in conflict. In A. Silke (Ed.) *The Psychology of Counter-Terrorism. Political Violence.* (pp. 62-75). Oxon, England: Routledge

Olsson, P. A. (1988). The terrorist and the terrorized: Some psychoanalytic consideration. *Journal of Psychohistory, 16*(1), 47-60.

O'Malley, P. (2007). *Shades of difference: Mac Maharaj and the struggle for South Africa*. New York, NY: Penguin Books.

Ong, A. D., Bergeman, C. S., Bisconti, T. L., & Wallace, K. A. (2006). Psychological resilience, positive emotions, and successful adaptation to stress in later life. *Journal of Personality and Social Psychology, 91*(4), 730-749

O'Rourke, L. A. (2009). What's special about female suicide terrorism? *Security Studies, 18*(4), 681-718. http://dx.doi/org/10.1080/09636410903369084

Papanastassiou, M., Waldron, G., Boyle, J., Chesterman, L. P. (2004). Post-traumatic stress disorder in mentally ill perpetrators of homicide. *The Journal of Forensic Psychiatry & Psychology, 15*(1), 66-75. http://dx.doi.org/10.1080/14789940310001630419

Parillo, V. N., & Donoghue, C. (2005). Updating the Bogardus social distance studies: A new national survey. *The Social Science Journal, 42*(2), 257-271.

Patra, B. N., & Sarkar, S. (2013). Adjustment disorder: Current diagnostic status. *Indian Journal of Psychological Medicine, 35*(1), 4-9. http://dx.doi.org/10.4103/0253-7176.112193

Pearce, K. I. (1977). Police negotiations: A new role for the community psychiatrist. *Canadian Psychiatric Association Journal, 22*(4), 171-175.

Pearlstein, R. M. (1991). The mind of the political terrorist. Wilmington, England: Scholarly Resources

Perälä, J., Suvisaari, J., Saarni, S. I., Kuoppasalmi, K., Isometsä, E, Pirkola, S., … Lönnqvist, J. (2007) Lifetime prevalence of psychotic and bipolar I disorders in a general population. *Archives of General Psychiatry, 64*(1), 19-28.

Perry, B. D., & Azad, I. (1999). Posttraumatic stress disorders in children and adolescents. *Current Opinion in Pedatrics, 11*(4), 310-316.

Petrie, W. M., Lawson, E. C., Hollender, M. H. (1982). Violence in geriatric patients. *JAMA, 248*(4), 443-444. http://dx.doi.org/10.1001/jama.1982.03330040031026

Phillips, D. L. (1964). Rejection of the mentally ill: The influence of behavior and sex. *American Sociological Review, 29*(5), 679-687

Pillemer, D. B., Goldsmith, L. R., Panter, A. T., & White, S. H. (1988). Very long-term memories of the first year in college. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 14*(4), 709-715

Pinel, E. C., Long, A. E., & Crimin, L. A. (2008). We're warmer (they're more competent): I-sharing and African-Americans' perception of the ingroup and outgroup. *European Journal of Social Psychology, 38*(7), 1184-1192. http://dx.doi.org/10.1002/ejsp.562

Pinel, E. C., Long, A. E., Crimin, L. A. (2010). I-Sharing and a classic conformity paradigm. *Social Cognition, 28*(3), 277-289.

Pinel, E. C., Long, A. E., Landau, M. J., Alexander, K., & Pyszczynski, T. (2006). Seeing I to I: A pathway to interpersonal connectedness. *Journal of Personal and Social Psychology, 90*(2), 243-257.

Pollock, H. H. (1938). Is the paroled patient a threat to the community? *Psychiatric Quarterly, 12*, 236-244.

Post, J. M. (1984). Notes on a psychodynamic theory of terrorist behavior. *Terrorism, 7*(2), 241-256. http://dx/doi.org/10.1080/10576108408435577

Post, J. M. (1986). Narcissism and the Charismatic Leader-Follower Relationship. *Political Psychology, 7*(4), 675-688.

Post, J. M. (1987). Rewarding fire with fire: Effects of retaliation on terrorist group dynamics. *Terrorism, 10*(1), 23-35. http://dx.doi.org/10.1080/10576108708435644

Post, J. M. (1998). Terrorist psycho-logic: Terrorist behavior as a product of psychological forces. In W. Reich (Ed.), *Origins of terrorism: Psychologies, ideologies, theologies, states of mind.* (pp. 25-40). Washington, DC: Woodrow Wilson Center Press.

Post, J. M. (2005). *Addressing the Causes of Terrorism: Psychology.* Paper presented at the International Summit on Democracy, Terrorism and Security., Madrid.

Post, J. M. (2005a). When hatred is bred in the bone: Psycho-cultural foundations of contemporary terrorism. *Political Psychology, 26*(4), 615-636.

Post, J. M. (2007). The mind of the terrorist: The psychology of terrorism from the IRA to al-Qaeda, New York, NY: Palgrave Macmillan.

Post, J. M., Ali, F., Henderson, S. W., Shanfield, S., Victoroff, J., & Weine, S. (2009). The Psychology of Suicide Terrorism. *Psychiatry, 72*(1), 13-31.

Post, J. M., Sprinzak, E., & Denny, L. (2003). The terrorists in their own words: Interviews with 35 incarcerated Middle Eastern terrorists. *Terrorism and Political Violence, 15*(1), 171-184. http://dx.doi.org/10.1080/09546550312331293007

Press Association. (2014). David Cameron urges unity against Isis 'evil' as UK prepares to strike Iraq. *The Guardian.* Retrieved from http://www.theguardian.com

Pynoos, R. S., Goenjian, A., Tashkian, M., Karakashian, R., Manijikian, M., Manoukian, G., … Fairbanks, L. A. (1993). Post-traumatic stress reactions in children after the 1988 Armenian earthquake. *The British Journal of Psychiatry, 163*(2), 239-247. http://dx.doi.org/10.1192/bjp.163.2.239

Quinn, D. M. (2006). Concealable versus conspicuous stigmatized identities. In S. Levin, & C. van Laar (Eds.) *Stigma and group inequality: Stigma and group inequality* (pp. 83-104). Mahwah, NJ: Lawrence Erlbaum Associates

Quinn, D. M., Kahng, S. K., & Crocker, J. (2004). Discreditable: Stigma effects of revealing a mental illness history on Test Performance. *Personality and Social Psychology Bulletin, 30*(7), 803-815. http://dx.doi.org/10.1177/0146167204264088

Rabasa, A., Pettyjohn, S. L., Ghez, J. J., & Boucek, C. (2010). *Deradicalizing Islamist extremists* (MG-1053-SRF). Santa Monica, CA: RAND Corporation.

Rabkin, J. G. (1979). Criminal behavior of discharged mental patients: A critical appraisal of the research. *Psychological Bulletin, 86*(1), 1-27.

Raine, A. (1993). *The psychopathology of crime: Criminal behavior as a clinical disorder.* San Diego, CA: Academic Press

Ranstorp, M. (1994). Hizbollah's command leadership: Its structure, decision-making and relationship with Iranian clergy and institution. *Terrorism and Political Violence, 6*(3), 303-339. http://dx.doi.org/10.1080/09546559408427263

Ranstorp, M. (1997). Hizb'allah in Lebanon: The politics of the western hostage crisis. London, England: Palgrave Macmillan

Ranstorp, M. (1998). The strategy and tactics of Hizballah's cirrent 'Lebanonization process'. *Mediterranean Politics, 3*(1), 103-134. http://dx.doi.org/10.1080/13629399808414643

Ranstorp, M. (2006). Introduction: Mapping terrorism research- challenges and priorities. In M. Ranstorp (Ed.), *Mapping terrorism research: State of the art, gaps and future direction* (pp. 1-28). Oxon, England: Routledge.

Rappeport, J. R., & Lansen, G. (1965). Dangerousness: Arrest rate comparisons of discharged patients and the general population. *The American Journal of Psychiatry, 121*(8), 776-783. http://dx.doi.org/10.1176/ajp.121.8.776

Rasch, W. (1979). Psychological Dimensions of Political Terrorism in the Federal Republic of Germany. *International Journal of Law and Psychiatry, 2*(1), 79-85.

Reich, J., & Wells, J. (1985). Psychiatric diagnosis and competency to stand trial. *Comprehensive Psychiatry, 26*(5), 421-432.

Reich, W. (1998). *Origins of terrorism: Psychologies, ideologies, theologies, states of mind*. Washington, D.C.: Woodrow Wilson Center Press.

Reinares, F. (2011). Exit from terrorism: A qualitative empirical study on disengagement and deradicalization members of ETA. *Terrorism and Political Violence, 23*(5), 780-803.

Rekawek, K. (2011). *Irish Republican terrorism and politics. A comparative study of the Official and Provisional IRA*. Oxon, England: Routledge.

Robins, L. N., Helzer, J. E., Croughan, J., & Ratcliff, K. S. (1981). National institute of mental health diagnostic interview schedule: Its history characteristics, and validity. *Archives of General Psychiatry, 38*(4), 381-389. http://dx.doi.org/10.1001/archpsyc.1981.01780290015001

Robins, L. N., Helzer, J. E., Weissman, M. M., Orvaschel, H., Gruenberg, E., Burke, J. D., & Reiger, D. A. (1984). Lifetime prevalence of specifc psychiatric disorders in three sites. *Archives of General Psychiatry, 41*(10), 949-958

Robins, L. N., Wing, J., Ulrich Wittchen, H., Helzer, J. E., Babour, T. F., Burke, J., … Towle, L. H. (1988). The composite international diagnostic interview: An epidemoloic approach instrument suitable for use in conjunction with different diagnostic sysems and in different

cultures. *Archives of General Psychiatry, 45*(12), 1069-1077, http://dx.doi.org/10.1001/archpsyc.1988.01800360017003

Robins, R. S., & Post, J. M. (1997). *Political paranoia: The psychopolitics of hatred*. New Haven, CT: Yale University Press.

Rosecoe, A., Rahman, M. S., Mehta, H., While, D., Appelby, L., & Shaw, J. (2012). Comparison of a national sample of homicides committed by lone and multiple perpetrators. *The Journal of Forensic Psychiatry & Psychology, 23*(4), 520-521. http://dx.doi.org/10.1080/14789949.2012.704639

Ross, J. I., & Gurr, T. R. (1989). Why terrorism subsides: A comparative study of Canada and the United States. *Comparative Politics, 21*(4), 405-426. http://dx.doi.org/10.2307/422005

Rotella, S. (2004). Social Bonds Pull Muslim Youth to Jihad, Expert Says, *Los Angeles Times*. Retrieved from http://articles.latimes.com

RT. (2014). 'Loon' wolf terrorist attacks to become the norm. *RT*. Retrieved from http://www.rt.com

Rubin, B. (1972). Prediction of dangerousness in mentally ill criminals. *Archives of General Psychiatry, 27*(3), 397-407.

Rubin, T. A., Wetzler, S. E., & Nebes, R. D. (1986). Autobiographical memory across the lifespan. In D. C. Rubin (Ed.), *Autobiographical memory*. (pp. 202-224). Cambridge, England: Cambridge University Press.

Rubin, D. C., Rahhal, T. A., Poon, L. W. (1998). Things learned in early adulthood are remembered best. *Memory and Cognition, 26*(1), 3-19.

Safi, M. (2015, January 29). Sydney siege inquest told Tori Johnson made to kneel before being shot. *The Guardian*. Retrieved from http://www.theguardian.com

Safi M. (2015, August 25). Sydney siege inquest: Experts disagree over Monis' motives – as it happened. *The Guardian*. Retrieved from http://www.theguardian.com

Safi, M. (2016, March 21). Sydney siege inquest: Monis may have been driven in 'by unknown accomplice'. *The Guardian*. Retrieved from http://www.theguardian.com

Safi, M. (2016, April 6). Sydney siege hostage Tori Johnson had chances to escape, inquest told. *The Guardian*. Retrieved from http://www.theguardian.com

Safi, M. (2016, April 7). Sydney siege inquest: Monis a 'terrible mix' of disorders and violent beliefs. *The Guardian*. Retrieved from http://www.theguardian.com

Sageman, M. (2004). *Understanding terror networks*. Philadelphia, PA: University of Pennsylvania Press.

Salvador-Carulla, L., Reed, G. M., Vaez-Azizi, L. M., Cooper, S. A., Martinez-Leal, R., Bertelli, M., … & Saxena, S. (2011). Intellectual developmental disorders: Towards a new name, definition and framework for 'mental retardation/intellectual disability' in ICD-11. *World Psychiatry, 10*(3), 175-180.

Sampson, R., & Groves, B. (1989). Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology, 94*(4), 774-802.

Sandberg, B., & Zand, B. (2008, February 19). Using the disabled for Jihad. *Der Spiegel*.

Schmid, A. P. (2011). *The Routledge handbook of terrorism research*. Oxon, England: Routledge.

Schmid, A. P., & Jongman, A. J. (1988). *Political terrorism: A new guide to actors, authors, concepts, data bases, theories, and literature.* Amsterdam, The Netherlands: North-Holland Publishing Company

Schmid, A. P., & Jongman, A. J. (1988/2005). *Political terrorism: A new guide to actors, authors, concepts, data bases, theories, and literature.* (Expanded and updated edition prepared under the auspices of the Center for International Affairs, Harvard University). New Brunswick, NJ: Transaction Publishers. (Original work published 1988).

Schmid, K., & Muldoon, O. T. (2013). Perceived threat, social identification, and psychological well-being: The effects of political conflict exposure. *Political Psychology, 20*(20), 1-18. http://dx.doi.org/10.1111/pops.12073

Schützwohl, M., & Maercker, A. (2000). Anger in former East German political prisoners: Relationship to posttraumatic stress reactions and social support. *Journal of Nervous & Mental Disease, 188*(8), 483-489.

Schuurman, B., & Eijkman, Q. (2013). *Moving terrorism research forward: The crucial role of primary sources.* The Hague, The Netherlands: International Centre for Counter-Terrorism.

Schwartz, S. J., Dunkel, C. S., & Waterman, A. S. (2009). Terrorism: An identity theory perspective. *Studies in Conflict & Terrorism, 32*(6), 537-559. http://dx.doi.org/10.1080/10576100902888453

Shapiro, J. N. (2013). *The terrorist's dilemma*. Princeton, NJ: Princeton University Press.

Shaw, E. D. (1986). Political terrorists: Dangers of diagnosis and an alternative to the psychopathological model. *International Journal of Law and Psychiatry, 8*(3), 359-368.

Shaw, J., Hunt, I. M., Flynn, S., Meehan, J., Robinson, J., Bickley H., … Appleby, L. (2006). Rates of mental disorder in people convicted of homicide: National clinical survey. *British Journal of Psychiatry, 188*(2), 143-147. http://dx.doi.org/10.1192/bjp.188.2.143

Sher, L., & Rice, T. (2015). Prevention of homicidal behaviour in men with psychiatric disorders. *The World Journal of Biological Psychiatry, 16*(4), 212-229. http://dx.doi.org/10.3109/15622975.2015.1028998

Shore, D., Filson, C. R., Johnson, W. E., Rae, D. S., Muehrer, P., Kelley, D. J., … Wyatt, R. J. (1989). Murder and assault arrests of White House cases: Clinical and demographic correlates of violence and subsequent to civil commitment. *American Journal of Psychiatry, 146*(5), 645-651.

Shore, D., Filson, C. R., & Rae, D. S. (1990). Violent crime arrest rates of White House case subjects and matched control subjects. *American Journal of Psychiatry, 147*(6), 746-750.

Silke, A. (1998). Cheshire-cat logic: The recurring theme of terrorist abnormality in psychological research. *Psychology, Crime & Law, 4*(1), 51-69. doi: 10.1080/10683169808401747

Silke, A. (2001). The Devil You Know: Continuing Problems with Research on Terrorism. *Terrorism and Political Violence, 13*(4), 1-14. doi: 10.1080/09546550109609697

Silke, A. (2003). Becoming a Terrorist. In A. Silke (Ed.), *Terrorists, Victims and Society: Psychological Perspectives on Terrorism and its Consequences* (pp. 29-54). West Sussex, UK: Wiley.

Silke, A. (2004). The road less travelled: Recent trends in terrorism research. In A. Silke (Ed.) *Research on terrorism: Trends, achievements and failures* (pp. 186-213). Oxon, England: Routledge.

Silke, A. (2007). The impact of 9/11 research on terrorism. In M. Ranstorp (Ed.), *Mapping terrorism research: State of the art, gaps and future direction* (pp. 76-93). Oxon, England: Routledge.

Silke, A. (2009). Contemporary terrorism studies: Issues in research. In R. Jackson, M. B. Smyth, and J. Gunning (Eds.). *Critical terrorism studies: A new research agenda* (pp. 34-48), Oxon, England: Routledge

Silke, A., & Schmidt-Petersen, J. (2015). The golden age? What the 100 most cited articles in terrorism studies tell us. *Terrorism and Political Violence, 0*, 1-21. http://dx.doi.org/10.1080/09546553.2015.1064397

Smart, L., & Wegner, D. M. (1999). Covering up what can't be seen: Concealable stigma and mental control. *Journal of Personality and Social Psychology, 77*(3), 474-486.

Smith, E. R., & Mackie, D. M. (2007). *Social Psychology*. Hove, Sussex: Psychology Press

Socall, D. W., & Holtgraves, T. (1992). Attitudes toward the mentally ill: The effects of label and beliefs. *The Sociological Quarterly, 33*(3), 435-445

Solomon, Z., & Mikulincer, M. (1990). Life events and combat-related posttraumatic stress disorder: The intervening role of locus of control and social support. *Military Psychology, 2*(4), 241-256. http://dx.doi.org/10.1207/s15327876mp0204_4

Southern Poverty Law Center. (n.d.). *SPLC: Southern Poverty Law Center*. Retrieved from http://www.splcenter.org/

Sosowsky, L. (1974). *Violence and the mentally ill, in putting state mental hospitals out of business: The community approach to treating mental illness in San Mateo County*. Berkley, CA: University of California Graduate School of Public Policy (pp. 17-33).

Sosowsky, L. (1978). Crime and violence among mental patients reconsidered in view of the new legal relationship between the State and the mentally ill. *American Journal of Psychiatry, 135*(1), 33-42.

Sosowsky, L. (1986). More on crime among the mentally ill. American Journal of Psychiatry, 143(10), 1325

Soyka, M., Graz, C., Bottlender, R., Dirschedl, P., Schoech, H. (2007). Clinical correlates of later violence and criminal offences in schizophrenia. *Schizophrenia Research, 94*(1-3), 89-98. http://dx.doi.org/10.1016/j.schres.2007.03.027

Spaaij, R. (2010). The enigman of lone wolf terrorism: An assessment. *Studies in Conflict & Terrorism, 33*(9), 854-870. http://dx.doi.org/10.1080/1057610X.2010.501426

Spaaij, R. (2011). *Understanding lone wolf terrorism: Global patterns, motivations and prevention*. Dordrecht, The Netherlands: Springer.

Speckhard, A. (2008). The emergence of female suicide terrorists. *Studies in Conflict & Terrorism, 31*(11), 995-1023

Speigel, D., Loewenstein, R. J., Lewis-Fernandez, R., Sar, V., Simeon, D., Vermetten, E., … Dell, P. F. (2011). Dissociative disorders in DSM-5. *Depression and Anxiety, 28*(12), 824-852. http://dx.doi.org/10.1002/da.20923.

Sprinzak, E. (1990). The Psychopolitical Formation of Extreme Left Terrorism in a Democracy: The case of the Weathermen. In W. Reich (Ed.), *Origins of Terrorism: Psychologies, Ideologies, Theologies and States of Mind* (pp. 65-85). Washington DC: Cambridge University Press.

Steadman, H. J., & Cocozza, J. J. (1977). Selective reporting and the public's misconceptions of the criminally insane. *Public Opinion Quarterly, 41*(4), 523-533. http://dx.doi.org/10.1086/268412

Steadman, H. J., Cocozza, J. J., & Melick, M. E. (1978). Explaining the increased arrest rate among mental patients: The changing clientele of state hospitals. *American Journal of Psychiatry, 135*(7), 816-820.

Stern, S. (1975). *With the Weathermen: The personal journey of a revolutionary woman.* Garden City, NJ: Doubleday & Company.

Strenz, T. (1988). A terrorist psychosocial profile: Past and present. *FBI Law Enforcement Bulletin. 57*, 13-19.

Stroman, D. F. (2002). *The disability rights movement: From deinstitutionalization to self-determination.* Lanham, MD: University Press of America

Süllwold, L. (1981.). Stationen in der Entwicklung von Terroristen. In H. Jäger, G. Schmidtchen, & Süllwold, L. (Eds.) *Lebenslaufanalysen* (Vol. 2, pp. 79-116). Opladen: Westdeutscher Verlag.

Swann, W. B., Buhrmester, M. D., Gómez, A., Jetten, J., Bastian, B., Vásquez, A., … & Zhang, A. (2014). What makes a group worth dying for? Identity fusion fosters perception of familial ties, promoting self-sacrifice. *Journal of Personality and Social Psychology, 106*(6), 912-926. http://dx.doi.org/10.1037/a0036089

Swann, W. B., Gómez, A., Dovidio, J. F., Hart, S., & Jetten J. (2010). Dying and killing for one's group: Identity fusion moderates responses to intergroup versions of the trolley problem. *Psychological Science, 21*(8), 1176-1183. http://dx.doi.org/10.1177/0956797610376656

Swann, W. B., Jetten, J., Gomez, A., Whitehouse, H., & Bastian, B. (2012). When group membership gets personal: A theory of identity fusion. *Psychological Review, 119*(3), 441-456. http://dx.doi.org/10.1037/a0028589

Swanson, J. W., Holzer, C. E., Ganju, V. K., & Jono, R. T. (1990). Violence and psychiatric disorder in the community: Evidence from the epidemiologic catchment area surveys. *Hospital and Community Psychiatry, 41*(7), 761-770.

Swanson, J. W., Swartz, M. S., Essock, S. M., Osher, F. C., Wagner, R. Goodman, L., … Meador, K. G. (2002). The socio-environmental context of violent behavior in persons treated for severe mental illness. *American Journal of Public Health, 92*(9), 1523-1531.

Swartz, M. S., Swanson, J. W., Hiday, V. A., Borum, R., Wagner, R., & Burns, B. J. (1998). Violence and severe mental illness: The effetcs of substance abuse and nonadherence to medication. *American Journal of Psychiatry, 155*(2), 226-231.

Swimm, J. K., & Miller, D. L. (1999). White guilt: Its antecedents and consequences for attitudes toward affirmative action. *Personality & Social Psychology Bulletin, 25*(4), 500-514. http://dx.doi.org/10.1177/0146167299025004008

Taarnby, M. (2005). *Recruitment of Islamist terrorists in Europe. Trends and perspectives.* Aarhus, Denmark: Danish Ministry of Justice.

Tagliaferri, F., Compagnone, C., Korsic, M., Servadei, F., & Kraus, J. (2006). A systematic review of brain injury epidemiology in Europe. *Acta Neurochirurgica, 148*(3), 255-268. http://dx.doi.org/10.1007/s00701-005-0651-y

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin, & S. Worchel. (Eds.) *The social psychology of intergroup relations.* (pp. 33-47). Monterey, CA: Brooks/Cole.

Tanay, E. (1987). Pseudo-political terrorism. *Journal of Forensic Sciences, 32*(1), 192-200.

Tardiff, K., & Sweillam, A. (1982). Assaultive behavior among chronic inpatients. *American Journal of Psychiatry, 139*(2), 212-215

Taylor, M. (1988). *The terrorist.* London, England: Brassey's.

Taylor, M., & Horgan, J. (2006). A Conceptual Framework for Addressing Psychological Process in the Development of the Terrorist. *Terrorism and Political Violence, 18*(4), 585-601. doi: 10.1080/09546550600897413

Taylor, M., & Quayle, E. (1994). *Terrorist lives*. London, England: Brasseys.

Taylor, P. J. (1985). Motives for offending among violent and psychotic men. *British Journal of Psychiatry, 147*(5), 491-498.

Taylor, P. J., & Gunn, J. (1984). Violence and psychosis I: Risk of violence among psychotic men. *British Medical Journal, 288*(6435), 1945-1949

Taylor, P. J. (2006). Proximity coefficients as a measure of interrelationships in sequences of behavior. *Behavior Research Methods, 38*(1), 32-50.

Taylor, P. J., & Donald. I. (2007). Testing the relationship between local cue-response patterns and the global structure of communication behaviour. *British Journal of Social Psychology, 46*(2), 273-298. http://dx.doi.org/10.1348/014466606X112454

Taylor, P. J., Jacques, K., Giebels, E., Levine, M., Best, R., Winter, J., & Rossi, G. (2008). Analysing forensic processes: Taking time into account. *Issues in Forensic Psychology, 8,* 45-57.

Taylor, S. (2015). *Forensic psychology: The basics*. London, England: Routledge.

Teplin, L. A. (1984). Criminalizing mental disorder: The comparative arrest rate of the mentally ill. *American Psychologist, 39*(7), 794-803.

Teplin, L. A. (1990). The prevalence of severe mental disorder among male urban jail detainees: Comparison with the epidemiologic catchment area programme. *American Journal of Public Health, 80*(6), 663-669.

Teplin, L. A., Abram, K. M., McClelland, G. M., Dulcan, M. K., & Mericle, A. A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry, 59*(12), 1133-1143.

The Al Qaeda Manual. (n.d.) *The Al Qaeda Training Manual*. Unpublished Manuscript. Retrieved from http://www.justice.gov

The Center on Law and Security. (2006). *Appendix B: Terrorist Trial Report Card: US Edition*. New York, NY: New York University School of Law. Retrieved from http://www.lawandsecurity.org

Thoits, P. A. (1983). Multiple identities and psychological well-being: A reformulation and test of the social isolation hypothesis. *American Sociological Review, 48*(2), 174-187

Thoits, P. A. (1995). Coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior,* Extra Issue: Forty Years of Medical Sociology: The State of the Art and Directions for the Future, 53-79

Tiihonen, J., Isohanni, M., Räsänen, P., Koiranen, M., & Moring, J. (1997). Specific major mental disorders and criminality: A 26 year prospective study of the 1966 Northern Finland birth cohort. *American Journal of Psychiatry, 154*(6), 840-845.

Torrey, E. F. (2015). Deinstitutionlization and the rise of violence. *CNS Spectrums, 20*(3), 207-214. http://dx.doi.org/10.1017/S1092852914000753

Townsend, E. (2007). Suicide terrorists: Are they suicidal? *Suicide and life-threatening behavior, 37*(1), 35-49

TRAC. (2014). *Groups*. Retrieved from http://www.trackingterrorism.org/groups

Turco, R. M. (1987). Psychiatric contributions to the understanding of international terrorism. *International Journal of Offender Therapy and Comparative Criminology, 3*(1-2), 153-161.

Tuner, C. F., Ku, L., Rogers, S. M., Lindberg, L. D., Pleck, J. H., & Sonenstein, F. L. (1998). Adolescent sexual behavior, drug use, and violence: Increased reporting with computer survey technology. *Science, 280*(5365), 867-873

Turner, J. C., Hogg, M. A., Turner, P. J., Smith, P. M. (1984). Failure and defeat as determinants of group cohesiveness. *British Journal of Social Psychology, 23*(2), 97-111. http://dx.doi.org/10.1111/j.2044-8309.1984.tb00619.x

Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and social psychology, 20*(5), 454-463.

Turner, R. J., & Avison, W. R. (1992). Innovations in the measurement of life stress: Crisis theory and the significance of event resolution. *Journal of Health and Social Behavior, 33*(1), 36-50

Ucros, C. G. (1989). Mood state-dependent memory: A meta-analysis. *Cognition and Emotion, 3*(2), 139-167. http://dx.doi.org/10.1080/02699938908408077

United States Institute of Peace (1999). *How terrorism ends* (Special Report No. 48). Washington, DC: United States Institute of Peace

U.S. Department of State. (2014). *Terrorist designations and state sponsors of terrorism*. Retrieved from http://www.state.gov/j/ct/list/index.htm

Victoroff, J. (2005). The Mind of the Terrorist: A Review and Critique of Psychological Approaches. *Journal of Conflict Resolution, 49*(1), 3-42. http://dx.doi.org/10.1177/0022002704272040

Viera, A. J., & Garrett, J. M. (2005). Understanding interobserver agreement: The Kappa statistic. *Family Medicine, 37*(5), 360-363.

Volanti, J. M., Paton, D., Johnston, P., Burke, K. J., Clarke, J., & Keenan, D. (2008). Stress shield: A model of police resiliency. *International Journal of Emergency Mental Health, 10*(2), 95-108.

Walker, R. W., Vogl, R. J., & Thompson, C. P. (1997). Autobiographical memory: Unpleasantness fades faster than pleasantness over time. *Applied Cognitive Psychology, 11*(5), 399-413. http://dx.doi.org/10.1002/(SICI)1099-0720(199710)11:5<399::AID-ACP462>3.0.CO;2-E

Wallace, C., Mullen, P. E., Burgess, P., Palmer, S., Ruschena, D., & Browne, C. (1998). Serious criminal offending and mental disorder: Case linkage study. *British Journal of Psychiatry, 172*(6), 477-484. http://dx.doi.org/10.1192/bjp.172.6.477

Wallace, C., Mullen, P. E., Burgess, P. (2004). Criminal offending in schizophrenia over a 25 year period marked by deinstitutionalization and increasing prevalence of comorbid substance use disorders. *American Journal of Psychiatry, 161*(4), 716-727.

Walsh, E., Buchanan, A., & Fahy, T. (2002). Violence and schizophrenia: Examining the evidence. *British Journal of Psychiatry, 180*(6), 490-495. http://dx.doi.org/10.1192/bjp.180.6.490

Wamweya, J. (1971). *Freedom fighter.* Nairobi, Kenya: East African Publishing House.

Weatherston, D., & Moran, J. (2003). Terorrism and mental illness: Is there a relationship? *International Journal of Offender Therapy and Comparative Criminology, 47*(6), 698-713. http://dx.doi.org/10.1177/0306624X03257244

Weenink, A. (2015). Behavioral problems and disorders among radicals in police files. *Perspectives on Terrorism, 9*(2), 17-32.

Weinberg, L., Pedahzur, A. M. I., & Hirsch-Hoefler, S. (2004). The challenges of conceptualizing terrorism. *Terrorism and Political Violence, 16*(4), 777-794. http://dx.doi.org/10.1080/095465590899768

Wheaton, B. (1985). Models for the stress-buffering functions of coping resources. *Journal of Health and Social Behavior, 26*(4), 352-364.

White, M. D., Mulvey, P., Fox, A. M., & Choate, D. (2012). A hero's welcome? Exploring the prevalence and problems of military veterans in the arrestee population. *Justice Quarterly, 29*(2), 258-286

Widom, C. S. (1999). Postraumatic stress disorder in abused and neglected children grown up. *American Journal of Psychiatry, 156*(8), 1223-1229

Wilkerson, C. (2007). *Flying close to the sun: My life and times as a Weatherman*. New York, NY: Seven Stories Press.

Wilson, A. E., & Ross, M. (2001). From chump to champ: People's appraisals of their earlier and present selves. *Journal of Personality and Social Psychology, 80*(4), 572-584. http://dx.doi.org/10.1037/0022-3514.80.4.572

Wilson, A. E., & Ross, M. (2003). The identity function of autobiographical memory: Time is on our side. *Memory, 11*(2), 137-149. http://dx.doi.org/10.1080/741938210

Wilson, J. P. (1994). The historical evolution of PTSD diagnostic criteria: From Freid to DSM-IV. *Journal of Trauma and Stress, 7*(4), 681-698

Wilson, M. A., Scholes, A., & Brocklehurst, E. (2010). A behavioural analysis of terrorist action: The assassination and bombing campaigns of ETA between 1980 and 2007. *British Journal of Criminology, 50*(4), 690-707. http://dx.doi.org/10.1093/bjc/azq023

World Health Organisation. (2010). *ICD-10: International statistical classification of diseases and related health problems (10$^{th}$ rev)*. Retrieved from http://www.who.int/classifications/icd/en/

World Health Organisation. (1993). *The ICD-10 classification of mental and behavioural disorders: Diagnostic criteria for research*. Geneva. Retrieved from http://www.who.int

WHO World Mental Health Survey Consortium. (2004). Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization world mental health surveys. *Journal of the American Medical Association, 291*(21), 2581-2590.

Yates, K. F., Kunz, M., Khan, A., Volavka, J., & Rabinowitz, S. (2010). Psychiatric patients with histories of aggression and crime five years after discharge from a cognitive-behavioral program. *The Journal of Forensic Psychiatry & Psychology, 21*(2), 167-188. http://dx.doi.org/10.1080/14789940903174238

Young, J. K., & Findley, M. G. (2011). Promises and pitfalls of terrorism research. *International Studies Review, 13*(3), 411-431. http://dx.doi.org/10.1111/j.1468-2486.2011.01015.x

Yousef, M. H. (2010). *Son of Hamas.* Milton Keynes, England: Authentic Media.

Ystgaard, M., Tambs, K., & Dalgard, O. S. (1999). Life stress, social support and psychological distress in late adolescence: A longitudinal study. *Social Psychiatry and Psychiatric Epidemiology, 34*(1), 12-19.

Yzerbyt, V., Dumont, M., Wigboldus, D., & Gordijn, E. (2003). I feel for us: The impact of categorization and identification on emotions and action tendencies. *Journal of Social Psychology, 42*(4), 533-549. http://dx.doi.org/10.1348/014466603322595266

Zartman, I. W. (2007). *Negotiation and conflict management: Essays on theory and practice.* London, England: Routledge.

Zebel, S., Doosje, B., & Spears, R. (2009). How perspective-taking helps and hinders group-based guilt as a function of group identification. *Group Processes & Intergroup Relations, 12*(1), 61-78. http://dx.doi.org/10.1177/1368430208098777

Zerach, G., Solomon, Z., Horesh, D., & Ein-Dor, T. (2013). Family cohesion and posttraumatic intrusion and avoidance among war veterans: A 20-year longitudinal study. *Social Psychiatry and Psychiatric Epidemiology, 48*(2), 205-214. http://dx.doi.org/10.1007/s00127-012-0541-6

Zitrin, A., Hardesty, A., Burdock, E., & Drossman, A. (1976). Crime and violence among mental patients. *American Journal of Psychiatry, 133*(2), 142-149.

**Appendix 1**

**H1: Mentally disordered lone-actors and mass murderers are just as likely to display 'rational' attack planning behaviours as those with no diagnosis.**

1. Change in Ideological Beliefs
2. Overt Intensification of Ideological Beliefs
3. Utilisation of Virtual Sources to Learn for Attack Preparation
4. Evidence that Individual Conducted Dry Runs
5. Evidence that Individual Conducted Research
6. Evidence that Individual Read Literature/Propaganda from a Wider Movement
7. Evidence that Individual Read Literature Concerning Other Lone Offenders
8. Evidence that Individual Read the Propaganda of Other Lone Offenders
9. Evidence that the Individual Stockpiled Weapons
10. Travel for Preparatory Activities
11. Utilised Drugs Just Prior to the Attack
12. Targeted Property
13. Targeted Government Figures/Establishments
14. Targeted Military Figures/Establishments
15. Targeted Private Citizens
16. Targeted Religious Figures/Establishments
17. Targeted a Private Location
18. Evidence that the Individual had a History with the Event Location
19. Individual Carried out and IED Event
20. Evidence that Individual Utilised Multiple Attack Methods
21. Individual was Discriminatory/Non-Discriminatory in their Targeting
22. Opportunistic Getaway from the Scene of Attack
23. Evidence that Individual Made Plans for Further Attacks.

**H2: Mentally disordered lone-actors and mass murderers are just as likely to be socially isolated as their non-mentally disordered counterparts.**

24. Evidence that Individual was Socially Isolated
25. Individual's Spouse/Partner was a Member of a Radical Organisation or Movement
26. Evidence that Individual Conducted Face to Face Interactions with Co-Ideologues
27. Evidence that Individual Conducted Online Interactions with Co-Ideologues
28. Evidence that the Individual Claimed to be Part of a Radical Organisation or Movement

**H3: Mentally disordered lone-actors and mass murderers are just as likely to carry out leakage behaviours as their non-mentally disordered counterparts.**

29. Individual Produced Letters/Public Statements Prior to their Attack
30. Individual Made Radical Statements to Family/Friends Prior to their Attack
31. Others were Aware of Individual's Grievance
32. Others were Aware of Individual's Planning/Preparatory Activities
33. Evidence that the Individual Attempted to Recruit Others to Their Cause/Planning
34. Individual Attempted to Join a Wider Radical Organisation/Movement Prior to their Attack
35. Evidence that Individual Produced Propaganda
36. Individual Produced Letters/Public Statements Following their Attack
37. Individual Produced a Public Claim of Responsibility
38. Evidence that Individual Expressed Regret/Remorse for their Actions

**H4: Mentally disordered lone-actors and mass murderers are more violent than non-mentally disordered offenders.**

39. Individual Expressed a Desire to Hurt Others
40. Individual had a History of Violent Behaviour
41. Individual Injured Others in their Attack
42. Individual Killed Others in their Attack

**H5: Mentally disordered lone-actors and mass murderers are just as likely to have prior criminal histories as the non-mentally disordered.**

43. Evidence that Individual had a History of Substance Abuse
44. Evidence that Individual had Close Associates who were Involved in Criminal Behaviour

**Appendix 2**

1.  Kasrils, Ronnie. (2004). *Armed and Dangerous: My Undercover Struggle to Freedom*. Jeppestown: Jonathan Ball Publishers.

2.  Bernstein, Rusty. (1999). *Memory against forgetting.* London, England: Viking.

3.  Dingake, Michael (1987). *My fight against apartheid*. London, England: Kliptown.

4.  Mandela, Nelson. (2002). *Long Walk to Freedom*. London, England: Abacus

5.  Kathrada, Ahmed. (2004). *Memoirs*. Gaborone, Botswana: Pula Press.

6.  Keitseng, Fish. (1999). *Comrade Fish: Memories of a Motswana in the ANC Underground*. Gaborone, Botswana: Pula Press.

7.  Mhlaba, Raymond. (2001). *Raymond Mhlaba's Personal Memoirs. Narrated to Thembeka Mufamadi*. Johannesburg: Thorold's Africana Book.

8.  O'Malley, Padraig. (2007). *Shades of Difference: Man Maharaj and the Struggle for South Africa*. New York, NY: Penguin Books.

9.  Turok, Ben. (1979). *Nothing but the Truth: Behind the ANC's Struggle Politics*. Garden City, NY: Doubleday.

10. Lewin, Hugh. (2004). *Stones Against the Mirror: Friendship in the Times of the South African Struggle*. Cape Town: Zebra Press.

11. Nasiri, Omar. (2006). *How I Infiltrated Al Qaeda and Was Abandoned by Western Intelligence*. Bloomsbury, England: C Hurst and Co Publishers.

12. Iyad, Abu and Eric Rouleau (1981). *My Home, My Land: A Narrative of the Palestinian Struggle*. New York, NY: Times Books.

13. Hasselbach, Ingo and Tom Reiss (1996). *Fuhrer-Ex: Memoirs of a Former Neo-Nazi*. New York, NY: Random House.

14. Yousef, Mosab Hassan. (2010). *Son of Hamas*. Carol Stream, IL: Tyndale House.

15. Taruc, Luis. (1967). *He Who Rides the Tiger: The Story of an Asian Guerilla Leader*. New York, NY: Praeger.

16. Begin, Menachem. (1977). *The Revolt*. New York, NY: Nash Publishing.

17. Heller, Tzila Amidror. (1999). *Behind Prison Walls: A Jewish Woman Freedom Fighter for Israel's Independence*. Hoboken, NJ: Jabotinsky Press.

18. Meridor, Ya'acov. (1985). *Long is the Road to Freedom*. Hewlett, NY: Judaea Publishing.

19. Tarrants, Thomas A. (1979). *The Conversion of a Klansman: The Story of a Former Ku Klux Klan Terrorist*. Garden City, NY: Doubleday.

20. Hoelz, Max. (1930). *From White Cross to Red Flag. The autobiography of Max Hoelz, waiter, soldier, revolutionary leader*. Translation. London, England: Jonathan Cape.

21. Collins, Aukai. (2002). *My Jihad*. Guilford, CT: Lyons Press.

22. Akallo, Grace and McDonnel, Faith, J., H. (2007). *Girl Soldier*. Grand Rapids, MI: Chosen Books.

23. Vasquez Perdomo, Maria Eugenia. (2005). *My Life as a Colombian Revolutionary*. Philadelphia, PA: Temple University Press.

24. Barnett, Donald L., and Karari Njama. (1966). *Mau Mau from Within: An Analysis of Kenya's Peasant Revolt*. London, England: Macgibbon & Kee.

25. Itote, Waruhiu. (1967). *Mau Mau General.* Nairobi: East African Publishing House.

26. Kabiro, Ngugi. (1973). *Man in the Middle.* Richmond, B.C., Canada: LSM Press.

27. Kaggia, Bildad. (1975). *Roots of Freedom 1921-1963. The Autobiography of Bildad Kaggia.* Nairobi: East African Publishing House.

28. Kahinga Wachanga, Henry. (1975). *The Swords of Kirinyaga*. Nairobi: Kenya Literature Bureau.

29. Mathu, Mohamed. (1974). *The Urban Guerrilla: The Story of Mohamed Mathu*. Richmond, B.C., Canada: LSM Press.

30. Muriithi, Kiboi. (1971). *War in the Forest*. Nairobi: East African Publishing House.

31. Wamweya, Joram. (1971). *Freedom Fighter*. Nairobi: East African Publishing House.

32. Baumann, Michael. (1979). *Terror or Love?* New York, NY: Grove.

33. Grivas, Giorgios. (1964). *Memoirs of General Grivas*. London, England: Longmans.

34. Al-Hout, Shafiq. (2011). *My Life in the PLO*. London, NY: Pluto Press

35. Korbonski, Stefan. (1968). *Fighting Warsaw: The Story of the Polish Underground State.* Funk and Wagnalls.

36. Khaled, Leila and George Hajjar. (1973). *My People Shall Live: Autobiography of a Revolutionary*. London, England: Hodder and Stoughton.

37. Bradley, Gerry and Brian Feener. (2009). *The Insider: Gerry Bradley's Life in the IRA*. Dublin, Ireland: O'Brien Press.

38. Collins, Eamon. (1997). *Killing Rage*. London, England: Granta Books.

39. Gilmour, Raymond. (1988). *Dead Ground*. London, England: Little Brown.

40. MacStiofain, Sean. (1975). *Memoirs of a Revolutionary*. London, England: Gordon Cremonesi.

41. McGartland, Martin. (1997). *Fifty Dead Men Walking*. London, England: Blake.

42. McGuire, Eamon. (2006). *Enemy of the Empire: Life as an International Undercover IRA activist*. Dublin, Ireland: O'Brien Press.

43. McGuire, Maria. (1973). *To Take Arms: A Year in the Provisional IRA*. London, England: Macmillan.

44. Noonan, John. (2005). *What do I do now?* Self-Published by John Noonan.

45. O'Callaghan, Sean. (1998). *The Informer*. London, England: Bantam Press.

46. De Vault, Carole. (1982). *Confessions of an Ex-Terrorist*. Toronto, Canada: Fleet Publishers.

47. Schiller, Margrit. (2008). *Remembering the Armed Struggle: Life in Baader-Meinhof*. London, England: Zidane.

48. Giorgio. (2003). *Memoirs of an Italian Terrorist*. New York, NY: Carroll & Graf.

49. Cabezas, Omar. (1985). *Fire from the Mountain: The Making of a Sandinista*. New York, NY: Crown.

50. Avner. (1959). *Memoirs of an Assassin*. London, England: A. Blond.

51. Cohen, Guelah. (1966). *Woman of Violence: Memoirs of a Young Terrorist, 1943-1948*. New York, NY: Holt, Reinhart and Winston.

52. Adair, Johnny. (2009). *Mad Dog*. London, England: John Blake Publishing.

53. Stone, Michael. (2003). *None Shall Divide Us*. Wales: John Blake Publishing.

54. Hamilton, David. (1997). *A Cause Worth Living For: My Journey Out of Terrorism*. Godalming, England: Highland Books.

55. Alpert, Jane. (1981). *Growing Up Underground*. New York, NY: Morrow.

56. Ayers, Bill. (2003). *Fugitive Days*. New York, NY: Penguin.

57. Grathwohl, Larry. (1976). *Bringing Down America*. New York, NY: Arlington House.

58. Rudd, Mark. (2009). *Underground: My Life with SDS and the Weathermen*. New York, NY: HarperCollins.

59. Wilkerson, Cathy. (2007). *Flying Close to the Sun*. New York, NY: Seven Stories Press.

60. Moyo, Temba. (1974). *The Organizer: The Story of Temba Moyo*. Richmond, B.C., Canada: LSM Press.

61. Luksa, Juozas. (2009). *Forest Brothers: The Account of an Anti-Soviet Lithuanian Freedom Fighter 1944-1948*. Budapest, Hungary: Central European Press

62. Daumantas, Juozas. (1975). *Fighters for Freedom: Lithuanian Partisans Versus the U.S.S.R 1944-1947*. New York, NY: Manyland Books (Pseudonym- second writings from Juozas Luksa)

63. O'Rawe, Richard. (2005). *Blanketmen: An Untold Story of the H-Block Hunger Strike*. Dublin, Ireland: New Island Books.

64. O'Doherty, Shane Paul. (2011). *The Volunteer: A Former IRA Man's True Story*. Strategic Book Publishing.

65. Noble, Kerry. (2006). *Tabernacle of Hope: Bridging Your Darkened Past Toward a Brighter Future*. Fort Worth, TX: Noble Strategies.

66. Noble, Kerry. (2010). *Tabernacle of Hate: Seduction into Right-Wing Extremism*. Syracuse, NY: Syracuse University Press.

67. Muchai, Karigo. (1973). *The hardcore: The story of Karigo Muchai/ taped and edited by Don Barnett*. Richmond, B.C: LSM Information Center

68. De Pinto, Rui. (1973). *Making of a middle cadre: The story of Rui de Pinto/ edited by Don Barnett*. Richmond, B.C: LSM Information Center

69. Ndadi, Healo Vinnia. (1989). *Breaking contract: The story of Vinnia Ndadi/ recorded and edited by Dennis Merce*r. London, England: IDAF Publications

70. Slovo, Joe. (1997). *The unfinished autobiography of ANC leader Joe Slovo*. Melbourne, NY: Ocean Press

71. Barry, Tom. (1981). *Guerrilla Days in Ireland: A Personal Account of the Anglo-Irish War*. Dublin, Ireland: Anvil Books

72. Clarke, Kathleen. (2008). *Kathleen Clarke: Revolutionary Woman*. Dublin, Ireland: O'Brien Press

73. O'Malley, Ernie. (1937). *On another man's wound*. London, England: Rich & Cowan.

74. Malasa Luis, Lucas. (1972). *The revolution in Angola*. Indianapolis, IN: Bobbs-Merrill

75. Paulo, Candonga. (1972). *The revolution in Angola*. Indianapolis, IN: Bobbs-Merrill

76. Breen, Dan. (1989) *My fight for Irish freedom*. Dublin, Ireland: Anvil Books

77. Stern, Susan. (1975). *With the weathermen: The personal journey of a revolutionary woman*. New York, NY: Doubleday

78. Oliver, Juan Garcia. (2008*). My Revolutionary Life: Juan Garcia Oliver Interviewed by Freddy Gomez*. Kate Sharpley Library

79. Juan Garcia Oliver. (2000). *Wrong Steps: Errors in the Spanish Revolution. (Taken from El Eco de los Pasos, Autobiography of Garcia Oliver)*. London, England: Kate Sharpley Library.

80. Leyden, Thomas James, & Cook, Bridget, M. (2008). *Skinhead Confessions: From Hate to Hope*. Springville, UT: Sweetwater Books.

81. Michaels, Arno. (2010). *My Life After Hate*. Milwaukee, WI: La Prensa de LAH.

82. Kariuki, Josiah Mwangi. (1975). *"Mau Mau" Detainee: Account by a Kenya African of His Experiences in Detention Camps, 1953-1960*. Oxford University Press.

83. Willman, David. (2011). *The Mirage Man: Bruce Ivins, the Anthrax Attacks, and America's Rush to War*. New York, NY: Bantam Books.

84. Gilmour, Raymond. (2015). *What Price Truth? The True Story of a Special Branch Agent*. Ken Wharton.

85. Cahill, Joe & Anderson, Brendan. (2002). *A Life in the IRA*. Dublin, Ireland: O'Brien Press.

86. Oliver, Juan Garcia. (2000). *Wrong Steps: Errors in the Spanish Revolution*. London, England.

87. Vallieres, Pierre. (1991). *White Niggers of America: The Precocious Autobiography of a Quebec "Terrorist"*. McClelland & Stewart Inc.

88. Saleem, Kamal. (2009). *The Blood of Lambs: A Former Terrorist's Memoir of Death and Redemption*. Howard Books.

89. Christie, Stuart. (2014). *My Granny Made me an Anarchist. The Christie File: part 1. 1946-1964*. Christie Books.

90. Christie, Stuart. (2003). *General Franco Made me a Terrorist. The Christie File: part 2. 1964-1967*. Christie Books.

91. Fulton, Kevin. (2008*). Unsung Hero: How I saved Dozens of Lives as a Secret Agent Inside the IRA*. John Blake Publishing.

92. Piccolini, Christian. (2015). *Romantic Violence: Memoirs of an American Skinhead.* Chicago, IL. Goldmill Group.

93. Moloney, Ed. (2011). *Voices from the Grave: Two Men's War in Ireland*. England: Faber & Faber (Brendan Hughes, David Ervine- Interviews)

94. Hansen, Ann. (2002). *Direct Action: Memoirs of an Urban Guerilla*. Toronto, Ontario: Between the Lines

95. Husain, Ed. (2007). *The Islamist: Why I joined Radical Islam in Britain, what I saw Inside and why I Left.* London, England: Penguin Books.

96. Barnett, Don., Harvey, Roy., & Chipema, Christine. (1972). *The Revolution in Angola: MPLA, Life Histories and Documents.* Indianapolis, IN: The Bobbs-Merrill Company.

97. Conway, Kieran. (2014). *Southside Provisional: From Freedom Fighter to the Four Courts*. Dublin, Ireland: Orpen Press.