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# **Personality Traits and Terrorism**

**Canadian Security Intelligence Service** 

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# Personality Traits and Terrorism

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### ABSTRACT

Many researchers claim that individuals who engage in terrorism do not share distinct personality traits, a claim well accepted in academia, government, and the intelligence community. A thorough review of the literature, however, has yielded no evidence for this claim and found only three studies where the personality traits of terrorists were measured. Each study reported distinct profiles among terrorists. There-fore, a link between personality and terrorism remains possible. Researching how personality affects an individual's involvement in terrorism may contribute to a better understanding of radicalization, and potentially increase the effectiveness of programs aimed at countering violent extremism.

#### Introduction

After decades of fruitless attempts, several leading scholars have concluded that the search for a terrorist personality is misguided and that personality traits may at most contribute to the decision to turn to terrorist violence.

LaFree & Ackerman, 2009, p.349

A paradox surrounds the purported link between personality traits and terrorism. Most psychologists have declared that those who engage in terrorism do not have a distinct personality profile. Moreover, they claim that this conclusion rests convincingly on empirical evidence, or more precisely, a lack of it. Yet in terrorism studies, caveats similar to the one in the epigraph abound. Like LaFree and Ackerman, many speculate that certain personality traits "contribute to the decision to turn to terrorist violence". This has led to a small but increasing number of studies to be conducted with the expressed purpose of identifying such personality traits. It seems as though *officially* the search for a "terrorist personality" has been abandoned, but *unofficially* the search continues.

#### **Objective of the report**

The present report follows this unofficial line of research linking personality and terrorism. The guiding objective is to explore whether personality traits can contribute to the identification of individuals who are more likely to engage in terrorism. The objective, of course, is not to reduce the multi-factorial phenomenon of terrorism to a single psychological dimension of personality. Rather, it is to re-assess the potential of personality psychology to inform terrorism research, a potential that may have been too readily discounted in the past decade.

#### **Overview** of the report

Before exploring whether personality traits might be relevant to terrorism studies, the current state of knowledge concerning a "terrorist profile" is thoroughly examined. This is done by identifying, reviewing and analyzing the empirical evidence researchers have put forth about personality characteristics and terrorism.

This present report begins by describing how this evidence was found. First, by means of an exhaustive review described in the next section, a representative portion of the terrorism literature from the past decade was scrutinized with the aim of identifying researchers' assertions regarding terrorism and personality characteristics. While compiling these assertions, the evidence cited to support each assertion was tracked and reviewed. The following section describes how these assertions were sorted and the evidence evaluated. Sorting was necessary because, although researchers commonly use the term "personality", their discussions in fact refer to one of three distinct topics related to personality: psychopathology, demographic characteristics, and personality traits. Thus, during sorting, assertions about personality were categorized according to these three topics. More importantly, the evidence found during the literature review regarding each of these three topics and their relationship to terrorism was evaluated. In keeping with the objective of this report, however, a more thorough analysis was accorded to personality traits. Following this, the field of personality psychology is described and its potential contributions to terrorism studies are outlined. Finally, specific recommendations are offered for researching personality traits in relation to terrorism.



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#### **Reviewing the Literature**

Personality refers to a collection of thoughts, feelings, and behaviours that vary between individuals. When these present in a distinguishable pattern, this pattern is referred to as a personality trait (Funder, 1997). Personality traits are thought to (a) be stable over time, (b) exhibit measurable differences between people, and (c) influence behaviour.

The field of psychology is replete with recognized personality traits. The five most researched of these are extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience, commonly referred to as the "Big 5" (McCrae & Costa, 1987). Many other personality traits have also been well documented, such as the need for closure (Webster & Kruglanski, 1994), the belief in a just world (Lerner, 1980), social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994), and sensation-seeking (Arnett, 1994), to name but a few. For each recognized personality trait, a corresponding standardized questionnaire has been developed to measure individual differences.

In some cases, personality traits are dysfunctional and lead to diagnosable disorders, such as narcissistic personality disorder (American Psychiatric Association, 1994). The terrorism literature contains numerous discussions about personality disorders, generally refuting their presence in the psychological make-up of people who commit terrorism. Although such discussions are documented in the present report, an examination of the disordered spectrum of personality characteristics was not the objective of this literature review. The objective, rather, was to explore "normal" personality traits and their relationship –if any– to terrorism. With this specific objective in mind, the literature was reviewed searching for any discernible characteristic, attributed to individuals and stable over time, that relates to terrorism.

#### Initial sources for review

The basis for the literature review consisted of scholarly journals in the field of terrorism studies. This included all articles published in six major terrorism journals between January 2000 (or later if the journal's inaugural issue was published after January 2000) and the journal's first issue of 2011. Table 1 identifies each journal's first issue included in the review, as well as the total number of articles reviewed. Table 1 also displays the number of "pertinent articles", which refers to articles that contain assertions about the link between terrorism and personality. Additional details about these pertinent articles can be found in the appendices.

Journal		Start of view Per	-	Articles Reviewed	Pertinent Articles	Appendix
	Year	Vol.	Issue	-		
Terrorism and Political Violence	2000	12	1	338	21	A
Studies in Conflict and Terrorism	2000	23	1	420	21	В
Perspectives on Terrorism	2007	1	1	95	10	С
Dynamics of Asymmetric Conflict	2008	1	1	68	4	D
Critical Studies on Terrorism	2008	1	1	88	17	Е
Behavioral Sciences of Terrorism and Aggression	2009	1	1	34	5	F

#### Table 1. Basis of literature review.

Note: Review period ended with the journals' first issue of 2011.



#### Method

Each article was carefully examined in order to identify assertions about personality and terrorism. Here, *assertions* were defined as stated conclusions about the link between personality and terrorism. Assertions were distinguished from non-conclusive statements, an important nuance. For example, Precht (2007) states "systemic research for a particular terrorist personality among terrorists in the 1970-1980s as well as terrorism in the 21st century has shown no significant sign of a special psychological makeup among terrorists" (p. 32). Given its conclusive nature, this statement was considered an assertion. In contrast, Ruby (2002, p. 17) writes: "Like the above researchers, Post (1984, 1986, 1987) proposes that terrorists suffer from pathological personalities…". This was not considered an assertion: although it summarizes the work of others like the previous example, it was not conclusive in nature.

A wide range of assertions concerning the relationship between personality and terrorism were included in the analysis. For example, some researchers focus their analyses on suicide bombers, or the difference between leaders and "foot-soldiers" in terrorist groups. These types of analyses were considered pertinent to understanding the relationship between personality and terrorism and therefore included. Also included were claims about specific geographic regions or specific terrorist groups, such as Nedoroscik's (2002) analysis of those who join Egyptian-based terror movements and Schbley's (2000) discussion about members of Hezbollah. Only discussions deemed un-generalizable, such as Shaw's (2003) psychological profiling of Saddam Hussein, were excluded.

#### Expansion of review: Tracking the evidence

Once an assertion was identified, the evidence supporting that assertion was noted and assessed. This evidence could take many forms. In some cases, authors support their assertions with data they have collected. In most cases, however, authors support their assertions by referring to the works of other authors. Thus, these authors –or more precisely their articles, books or reports– were reviewed in search of evidence. In most cases, once again, these authors did not present evidence; they supported their assertions by citing other authors. This process continued until either the original data was found, or it was discovered that assertions were made without supporting evidence. For example, to support their assertion that "the vast majority of terrorists neither suffer from mental disorders nor can be classified by a certain personality characteristic", Kruglanski and Fishman (2009, p. 8) cite a chapter by Silke (2003b). Upon examination, Silke does not present any evidence about personality characteristics in his chapter, but rather asserts that "terrorists are essentially 'ordinary' individuals" (p.30). In support of his assertion, Silke cites several studies, notably those of Lyons and Harbinson (1986), Morf (1970), and Rasch (1979). Among these three studies, only Rasch provides data to support his assertions. Figure 1 in appendix G displays the network of citations used by authors to support their assertions.

To be clear, the objective of sifting through the multitude of articles, books, and reports during this exercise was to locate empirical research about personality and terrorism. The next section focuses on these empirical works.

#### **Three Conceptions of Personality**

It quickly became apparent during the literature review that authors did not all refer to the same conception of "personality". For some researchers, personality corresponded to mental illness, such as psychosis, psychopathy, or narcissistic personality disorder. For other researchers, personality referred to



demographic profiles about age, marital status, and socio-economic status. And some researchers did discuss personality in its more conventional sense, that is, as a collection of discernible characteristics, attributed to individuals, that is stable over time.

Therefore, assertions about personality and terrorism have been sorted according to these three different conceptions of personality. For each conception, empirical studies about their relationship to terrorism are discussed. A more in-depth analysis, however, is accorded to empirical research on actual personality traits.

#### Mental illness

Throughout the literature, most researchers refute, as oppose to endorse, the link between mental illness and terrorism. Although scarce, the published data do support this consensus. Direct psychiatric assessments of terrorists were found in two studies (Lyons & Harbinson, 1986; Rasch, 1979), and in both cases, researchers did not report an atypical prevalence of mental illness. Biographical information collected by Sageman (2004, 2008), Bakker (2006), as well as Gartenstein-Ross and Grossman (2009) also support the consensus.

In addition to these assessments, experts such as Horgan and Sageman have convincingly argued that mental illness may preclude someone's involvement in terrorism. First and foremost, mental illness would conceivably hinder an individual's ability to engage in the activities of, and cooperate with members within, a terrorist cell (Sageman, 2004, p. 81). For this reason, a terrorist cell would likely not accept individuals with mental illness (Horgan, 2003, p. 7). This argument, in addition to the psychiatric assessments –although few in number– renders the relationship between psychopathology and terrorism very unlikely. An exception, however, might be "lone-wolves", a rather unique subset of terrorists who prepare and execute attacks independently. Case studies suggest that these individuals may be more likely to suffer from psychiatric disorders (see Spaaij, 2010).

#### Demographic profiles

The majority of authors assert that certain demographic characteristics are associated with terrorism, and most studies containing empirical data support this relationship. The demographic traits typical of those who engage in terrorism are: male, educated, and from middle to upper class backgrounds (e.g. Atran, 2003; Berrebi, 2003; Russell & Miller, 1977; Sageman, 2004, 2008). Although this finding is quite robust across many studies, other researchers have found different demographic profiles or a lack thereof (e.g. Gartenstein-Ross & Grossman, 2009; Post, Sprinzak, & Denny, 2003; Weinberg, Pedahzur, & Canetti-Nisim, 2003). Additional research is needed to explore if other variables, such as geographical regions, might explain why some researchers have found profiles while others did not.

#### Personality traits

The literature contains many varied assertions about personality traits and terrorism, with some contending that terrorists have distinct personality traits, while others contend the contrary. When confined to research published by psychologists, however, the consensus is clear: most claim that terrorists do not have a distinct profile. To accurately determine the current state of knowledge, all empirical research about personality traits and terrorism found throughout this review is summarized next. The entire collection of empirical research, which involves direct assessments of personality traits, amounts to the three following



studies.

#### <u>Schbley (2003)</u>

Schbley sought to "construct an ethno-religious-specific and user-friendly psychosocial profile" of Hizbullah's suicide bombers (Schbley, 2003, p.108). To do this, a questionnaire was designed for Hizbullah members to rate their agreement with statements concerning their religious duties, mentors, finances, politics, education, their temper, and their attitudes about martyrdom. Schbley reports quite surprising findings, such as links between markers of psychopathology and the desire for martyrdom.<sup>1</sup> Most pertinent to the current discussion is her finding of a relationship between "absolutist tendencies" and an "affinity for martyrdom" (p.116). Careful review of the questionnaire, however, reveals that this correlation between a personality trait and martyrdom may have been a statistical artifact.

As is common practice during statistical analyses of questionnaires, variables of interest are computed by grouping the participants' responses to various statements. To compute the variable *absolutist tendencies*, Schbley averaged participants' ratings of 11 statements. Similarly, the variable *affinity for martyrdom* was computed from participants' ratings of 10 statements.<sup>2</sup> For each variable to accurately represent different constructs, each variable should be computed from different sets of statements. Upon examination, however, it was discovered that three statements were used to compute both *absolutist tendencies* and *affinity for martyrdom*, making it inevitable for both variables to correlate. A crude analogy of this statistical faux pas would be to make two pies from the same pumpkin, and then be surprised that they both taste similar.

It thus remains unclear if absolutist tendencies can predict individuals' involvement in suicide bombings. Although this link remains possible, the statistical mishap prevents Schbley's results from contributing to the empirical knowledge base about terrorism and personality traits.

#### Gottschalk & Gottschalk (2004)

Gottschalk & Gottschalk (2004) administered two personality measures to 90 individuals involved in Palestinian or Jewish terrorist groups. One measure was the MMPI-2, a well-established personality assessment tool. The second measure was the Pathological Hatred scale, a questionnaire developed by one of the authors and largely inspired by psycho-analytical (Freudian) theory. The Pathological Hatred scale borrows items from other scales used to measure authoritarianism, anti-humanism, and necrophilic attitudes. The authors report personality differences between their sample of 90 terrorists and a control group made up of 61 Palestinians and Israelis not involved in terrorism.

Compared to the control group, terrorists were found to present higher levels of psychopathic, depressive, and schizophrenic tendencies, as measured by the MMPI-2 subscales. Moreover, terrorists scored on "the extreme pole of the 'pathological hatred' scale" (p.42). According to Gottschalk & Gottschalk's findings, terrorists do have distinct personality traits. These traits, however, are reported as bordering on mental illness.

#### Merari, Diamant, Bibi, Broshi, and Zakin (2010)

2 Schbley does not specify if the variables are computed by *averaging* across ratings or *creating a sum* of the ratings. Regardless, both computations yield the same statistical artifact.

<sup>1</sup> Schbley (2003, p. 114 and 116) reports "strong statistical relationships between some self-reported criteria of intermittent explosive, psychotic, and oppositional personality disorders and a person's absolutist tendency, affinity for martyrdom, susceptibility to the culting process, psychotic depression, and acts of terrorism and self-immolation".



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Merari and his colleagues (2010) conducted interviews with 41 jailed Palestinian terrorists: 14 were organizers of suicide bombings, 15 were would-be suicide bombers, and 12 were "controls" that were jailed for their involvement in political violence. During these interviews, psychologists administered one standardized personality test, the CHPI, an adapted version of the California Personality Inventory. Three other tests, commonly referred to as "projective tests", were also administered: the Rorschach, the Thematic Apperception Test, and the House-Tree-Person drawings.

Unfortunately, only nine people agreed to complete the CHPI. Due to the small number of participants, the authors chose to disregard the test results (a shame given the scarcity of data of this nature). Consequently, personality differences among the terrorists were based on the psychologists' semi-structured interviews, as well as the responses to the projective tests. Here, several differences were found regarding personality traits according to the individuals' terrorist role. Individuals who organized suicide attacks had more ego-strength, were more impulsive, and emotionally unstable than individuals who were destined to be suicide bombers, who were found to have avoidant and dependent personality styles (pp. 93, 94).

#### Frequently cited works

Several other studies warrant discussion before concluding the present section. These are studies frequently cited as having assessed the personality traits of terrorists, the most common being studies by Rasch (1979), Lyons and Harbinson (1986), Morf (1970), and Heskin (1980), as well as a study by the West German Ministry of the Interior conducted in the early 1980s. For example, Horgan (2003) states that, "one can identify evidence in support of the position that terrorists are not necessarily characterized by distinct personality traits" (p. 16). He then cites four of the five above-mentioned references in his ensuing discussion. These studies, which many researchers consider as the evidentiary basis for the absence of "terrorist personality traits", are reviewed next.

Morf (1970) and Heskin (1980) provide detailed accounts of two terrorist organizations, the Front de Libération du Québec (FLQ) and the Irish Republican Army (IRA), respectively. While they each present intimate knowledge of the socio-political contexts contributing to terrorism in Canada and Ireland, their analyses about the personality traits leading to terrorism are speculative. Heskin claims that authoritarianism was a distinct trait among terrorists (1980, p. 84), whereby Morf refers to immaturity and idealism (1970, pp. 120, 121, and 147). Neither author mentions any data on which to base these conclusions.

Rasch (1979) reports having examined 11 individuals who were suspected of engaging in terrorism. Rasch does not reveal his assessment method, but reports only one man had egoistical motivations for his terrorist acts. Rasch also mentions a study of 40 terrorists wanted by the German Federal police. He concludes that neither mental illness nor a pattern of demographic characteristics could be discerned in either sample, and makes no mention of personality traits.

Lyons and Harbinson (1986) report a study with 106 people who committed murder in Northern Ireland: 47 for political reasons (terrorism), and 59 for non-political reasons. A 140-item questionnaire was administered to each murderer. Here, the authors do not mention or report any items relating to personality traits. Rather, their questionnaire gathered information about demographics, previous criminality, psychiatric illnesses, details about the victims, and the method of killing. Lyons and Harbinson, both psychiatrists who assessed the murderers themselves, focus their discussion on the prevalence of mental illness and alcohol consumption, both of which were higher among the non-political murderers. The only finding remotely linked –if linked at all– to personality was that, compared to terrorists "the non-political murderers appear to



come from a more unstable family background" (p. 195).

The final study in this group is a very comprehensive examination of extremist movements in Germany during the 1970s, mostly the Red Army Faction (RAF). This is a hefty four-volume set entitled *Analysen zum Terrorismus*, where each volume addresses a different aspect of terrorism: Volume 1 addresses ideology and strategy, Volume 2 presents an analysis of the biographies of terrorists, Volume 3 examines group processes, and Volume 4 discusses protest movements and the reactions they produce.

According to Crenshaw (1986) and Taylor (1988, p. 145), Süllwold –a researcher who contributed to Volume 2 of *Analysen zum Terrorismus*– uncovered several distinctive personality traits among RAF members: extraversion and neurotic hostility.

A thorough examination<sup>3</sup> of the four-volume set confirmed that Volume 2 does indeed contain a section devoted to personality. The author of this section, Süllwold (1981), specifies "there is no such thing as the typical terrorist" (p. 103). Nonetheless, she does go on to stipulate that two "abnormal personality developments" can predispose youth to join terrorist movements; these are "neurotic hostility" and "extreme extraversion" (p. 105). This claim is not derived from any data or interviews, however, but rather it is derived from her reading of the literature in psychology.

To be clear, Volume 2 does contain data. This data describes 250 people who were wanted, charged, or convicted of terrorism offenses. While several in-person interviews are summarized throughout this volume, all the empirical data presented was derived from arrest warrants and case files obtained from the Federal Criminal Police Office (p.18). All empirical data in Volume 2 is demographic in nature and does not relate to personality traits.

It is also worth noting that Volume 4 of *Analysen zum Terrorismus* presents data on the endogenous and exogenous factors leading people to become terrorists (p. 363).<sup>4</sup> The data was derived from a survey answered not by the terrorists themselves, but by a sample of "5000 youth and young adults between the ages of 16 and 35" living in West-Berlin (p. 106).

Everything considered, the four-volume set *Analysen zum Terrorismus* does not include any empirical data about the personality traits of terrorists.

To conclude the present section on frequently cited works, it is worth mentioning that some authors incorrectly cite empirical studies to dispute the link between personality traits and terrorism. For example, Precht (2007) claims there is "no significant sign of special psychological makeup among terrorists" (p. 32), and cites a NYPD report (i.e. Silber & Bhatt, 2007) as evidence. Although this NYPD report contains data, its data does not pertain to personality traits.

#### Empirical data and personality traits

In sum, three separate studies were found where the personality traits of individuals involved in terrorism were assessed. The results of one study, Schbley's (2003), might be attributable to a statistical artifact. Of the remaining two, only Gottschalk and Gottschalk's (2004) study included a control group to compare findings against the personality traits of individuals not involved in terrorism. According to this one study, terrorists reported higher levels of psychopathic, depressive, and schizophrenic tendencies. Thus, if one abides by the empirical standards set in the field of personality psychology, the existing data regarding the link between terrorism and personality traits consist of one sample of 90 individuals subjected to the MMPI-

<sup>3</sup> *Analysen zum Terrorismus* is written in German and has not been translated into English. Therefore, the research psychologist (who does not read German) in charge of the present literature review was assisted by a German-English translator.

<sup>4</sup> Volume 4 is actually comprised of two books, part 1 and 2. The data referred to above is in part 1.



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2. Although the findings from this one and only sample suggest that individuals who engage in terrorism have a distinct personality profile, this profile more closely relates to mental illness than to personality.

Clearly, one study is not enough to draw a decisive conclusion about the relationship between personality traits and terrorism. What can be concluded from reviewing the literature, however, is that no empirical study has reported an absence of discernable personality traits among terrorists. More fundamentally, though, this review highlights that the vast majority of recognized personality traits have simply not been measured among individuals who engage in terrorism.

#### **Justification for Further Research**

Given that the link between personality traits and terrorism has not been extensively researched, there is a possibility that such a link exists. A lack of research does not signify an absence of discernible personality traits among those who engage in terrorism. The only conclusion that can be drawn from this review is that the relationship between personality and terrorism is still unknown. Before using this finding to call for future research, let us first consider whether this supposed link is even logically sustainable.

Personality traits predispose people to experience certain situations while avoiding other situations. External factors unrelated to personality, such as social influence, economic reality, and other situational constraints will also influence an individual's behaviour in a situation. Yet, holding all external factors constant, certain personality traits increase the likelihood of experiencing particular situations. Consider sensation seeking, an established personality trait. Sensation seekers will be more likely to apply for a law-enforcement job, for example, and less likely to apply for work as a librarian. Hence, the sensation seeker who applies for a law enforcement job will be more likely to experience dangerous situations. This reasoning also applies to terrorism. Particular personality traits should increase an individual's likelihood to engage in subversive activities, which in turn, increases the likelihood of engaging in terrorism. Conversely, certain personality traits should decrease this likelihood. Support for this reasoning can be found throughout the field of personality psychology, discussed next.

#### Personality Psychology

Researchers in psychology generally agree that both the person (e.g. personality) and the situation (e.g. external factors) must be considered when predicting behaviour. Although historically, psychological research was framed as pitting the "person" against the "situation", this has shifted. Most psychologists have since moved beyond this dichotomy and now present an integrated account of behaviour, where both personality and situational variables interact (Webster, 2009).

As a result, it is now widely accepted that personality traits influence an individual's actions. A personality trait is not thought to directly predict a specific behaviour, rather a personality trait is viewed as a predisposition to perform a certain category of behaviours (Ajzen & Fishben, 1980). Consider the five most researched personality traits of extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (McCrae & Costa, 1987). Several robust patterns have emerged from the vast research connecting these traits to behavioral categories. People who rate high on openness to experience, for example, are more likely to engage in artistic behaviour (Larson, Rottinghaus, & Borgen, 2002). Low conscientiousness, on the other hand, has been consistently linked to criminality and antisocial behaviour (Ozer & Benet-Martinez, 2006). Some personality psychologists claim that behavioral categories are not only predicted by personality traits, but rather each is a side of the same coin: behavioral interests *are* expressions of personality (Holland,



1997). Based on this recognition, individuals who engage in terrorist activities might plausibly have different personality traits than individuals who do not engage in terrorism.

What remains unclear, perhaps, is the value of knowing a "terrorist personality trait". As Horgan (2003, p. 23) points out, psychologists who use personality measures in their research have unconvincingly addressed the "relevance and utility of personality traits" in psychological studies of terrorism. Even among researchers who consider personality relevant to terrorism, this feature about terrorists' psychology "does not leave many options for policymakers to address the radicalization of this group" (Kleinmann, 2012, p. 290). In an attempt to address these concerns, the following section outlines the potential value of personality research for terrorism studies.

#### **Potential contributions**

Personality traits –or personality psychology more broadly– might hold unexploited contributions to our understanding of terrorism. Indeed, the discovery of a personality trait (or pattern of traits) as a predisposing factor for terrorist activity could result in at least three potential contributions.

First, personality traits may help to address the "specificity problem", a shortcoming which has plagued most psychological explanations of terrorism (Horgan, 2005, p. 74, Sageman, 2004 p. 99; Taylor, 1988, p. 145). The specificity problem refers to the weak predictive power of many psychological factors theorized as leading to terrorism. Many of these factors, such as relative deprivation, discrimination, and identity crises, are hypothesized as radicalizing factors that compel individuals to engage in terrorism (King & Taylor, 2011). Many people who do not radicalize, however, also experience these psychological factors. In other words, the people who experience relative deprivation, discrimination, or identity crises and do not engage in terrorism vastly outnumber the people who do engage in terrorism. While this lack of specificity does not necessarily invalidate the importance of these factors, it is clear that other factors must be considered to better delineate who might engage, or not, in terrorism. Adding personality traits to these other social-psychological factors may increase the predictive power of psychological theories of terrorism.

Second, exploring personality traits might also yield broader theoretical benefits. Within the field of terrorism studies, researchers have proposed various models depicting the psychological processes leading to terrorism. Across these models, most theorizing emphasizes situational factors as the primary –and in most cases the exclusive– psychological drivers. Reducing the complex phenomenon of terrorism to solely external, social dimensions of psychology is unrealistic, just as reducing terrorism to merely internal dimensions of psychological explanations of terrorism, perhaps as a backlash to the former bias favoring personality. If this is the case, then the research pendulum should swing back toward the midpoint, where personality traits and social factors are both considered. Such a shift in theorizing would indeed be a welcome theoretical advancement for terrorism studies, and more likely to represent the psychological complexity necessary to predict how individuals become involved in terrorism. As the entire discipline of psychology now recognizes the importance of both the person and the situation when predicting *any* behaviour, terrorism research cannot continue to ignore half of this equation.

Finally, if a link to terrorism is found, personality traits could be exploited for applied purposes. Community-based programs aimed at countering violent extremism (CVE) may benefit from using information about the personality composition of the individuals most likely to be lured into extremism. CVE programs could be designed to be especially attractive to individuals who possess these personality



traits, thereby increasing the reach of these programs. Moreover, the effectiveness of CVE programs could be enhanced by selecting intervention strategies that correspond to these personality profiles.

Clearly, the discovery of a link between personality traits and terrorism holds potential for better understanding and preventing terrorism. In the following section, research strategies regarding personality traits are discussed, and two personality traits are specified as particularly promising avenues for future research.

#### Recommendations

Before specific research recommendations are proposed, the research endeavor itself warrants discussion. The relationship between personality traits and terrorism may not be readily apparent, thus researchers should consider different ways of conceptualizing this relationship.

For example, one might not only investigate differences in personality traits between those who engage in terrorism and those who do not, but also investigate distinctions across those already engaging in terrorism. This becomes significant when considering that terrorism encompasses a wide range of different roles and behaviours. The "Toronto 18" case offers a pertinent example here. Although 11 members either pleaded guilty or were convicted of terrorism, terrorist activity was not uniform across all cell members. According to court documents, Zakaria Amara did much of the planning and directing (*R. v. Amara*, 2010). Asad Ansari, on the other hand, mainly provided computer-related support (*R. v. Ansari*, 2006). Personality traits may distinguish between these two types of people and their behavioral preferences. That is, individuals who engage in activities directly leading to violence might differ from others who may still be participating in terrorism, but engage in activities more removed from the violent acts.

To exemplify this point, consider research on the "firefighter personality" which much like the "terrorist personality" has been the subject of a great deal of speculation (e.g. Lasky, 2009). In one recent study comparing firefighters to a group of non-firefighters matched on age, education, and work schedule, no differences were found on various personality tests<sup>5</sup>, except that firefighters scored higher on one measure of extraversion (Wagner, Martin, & McFee, 2009). In another study where firefighters were compared among themselves, however, certain personality differences emerged. Compared to firefighters who preferred responding to medical emergencies, firefighters who preferred firefighting scored higher on fearlessness, and lower on communion, openness, and agreeableness (Fannin & Dabbs, 2003).

With such research strategies in mind, two specific personality traits are explored next. The first is a trait often discussed by terrorism pundits: sensation seeking. The second trait, social dominance orientation, has been discussed to a lesser extent, but has surfaced in a number of psychological research studies.

#### Sensation seeking

A consistent theme emerges from the writings of terrorism observers and experts: sensation seeking. This theme has been especially salient in descriptions of contemporary homegrown jihadists. Indeed, many claim that Muslim youth radicalize, in part, because of the seductive and adventurous dimensions of jihad (Atran, 2008; Bartlett, Birdwell, & King, 2010; Stern, 2006). Several psychologists who study terrorism allege that sensation seeking –as a personality trait– might predispose individuals to the processes leading to terrorism (Kruglanski & Fishman, 2006; Silke, 2008). If not sensation-seeking per se, the predisposing

<sup>5</sup> These include the Framingham Type A scale, the Zuckerman Sensation Seeking scale, the Physical Risk Assessment Inventory, and the NEO Five-Factor Inventory–Revised.



personality trait might be an "attraction to risk-taking" (Silke, 2003b, p. 36) or a capacity to "tolerate high risk" (Crenshaw, 1981, p. 393).

#### Social dominance orientation

Social dominance orientation (SDO) is a well-established personality variable commonly measured in psychological research on intergroup relations. SDO denotes an individual's tendency to value status and hierarchy while devaluing egalitarianism (Sidanius & Pratto, 1999). A person who rates high on SDO would thus cherish group dominance, status, power, and superiority, and would agree that "some groups of people are simply inferior to other groups"<sup>6</sup>.

Levin and her colleagues (2003) have found, in a sample of Lebanese Muslims, that individuals who score lower on the SDO scale were more likely to support terrorism against the West. This led the authors to suggest that terrorism against the West might be framed as a counter-dominance enterprise in the Middle East. That is, within this framework, those who are more likely to support terrorism would be those who value egalitarianism, such as individuals low on SDO.

An interesting opposite pattern has been found in Canada. In a survey conducted with Canadian Muslims, respondents who had higher scores on the SDO scale were more likely to report aggressive action tendencies towards non-Muslim Canadians, and believe the West was at war with Islam (King, 2012). These findings suggest that, if framed as a quest for dominance, the Westerners most likely to participate in extremist violence would be those who value dominance, that is, individuals high on SDO. The emergence of a relationship between SDO and support for terrorism in two different contexts is noteworthy, and given the opposing findings, warrants further study.

#### Conclusion

The objective of this report was to explore the possibility of using personality traits as a potential factor to identify individuals who are more likely to engage in terrorism. As personality traits predispose individuals to experience certain situations, the people who choose to engage in terrorism might indeed have discernible personality traits. This contention is consistent with research findings in personality psychology.

Many terrorism researchers, however, have officially concluded that a "terrorist personality" does not exist. Yet the literature reviewed for the present report contains only one empirical study where terrorists were administered a standardized personality test and the findings were compared to the personality traits of individuals not involved in terrorism. The results from this one and only study contradict the prevailing notion that personality and terrorism cannot be linked. A great deal of additional research is needed to verify this finding. It must also be noted that this personality assessment, and the few other assessments found throughout this review, were all performed on individuals in the Middle East, an important detail when considering the generalizability of the results. For Western countries where concerns are largely about homegrown terrorists, research on terrorism related to the Arab-Israeli conflict, for example, might have limited applicability. The current need for Western security agencies is to better understand the psychological factors that lead Western citizens to accept the legitimacy of terrorism, be it for religious, political, apocalyptic, nationalistic or separatist reasons.

To conclude, claims about the nonexistence of a "terrorist personality" are seemingly unfounded. For terrorism, as for many other behaviors, both situational and dispositional factors are likely to influence a

<sup>6</sup> This statement appears on the questionnaire used to measure SDO.



person's decision to act. Thus, the possibility of a relationship between personality traits and terrorism remains, and future research is warranted. Should psychologists be mistaken in their prevailing assumptions about the relevance of personality to terrorism, important theoretical and applied advances in our understanding of radicalization lie ahead.

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# Appendix A

	Article	Dimensions of personality				
Year	Authors	Vol.	Issue	Mental illness	Personality traits	Demographics
2000	Post, Ruby, & Shaw	12	2		Yes	
2001	Tucker	13	3	Yes	Yes	Yes
2001	Gressang	13	3			Yes
2002	Nedoroscik	14	2			Yes
2003	Griffin	15	1	No		
2003	Post, Sprinzak, & Denny	15	1			Yes
2003	Hecht	15	3	No	No	Yes
2003	Weinberg, Pedahzur, & Canetti-Nisim	15	3			Yes
2003	Alam	15	4			Yes
2004	Testas	16	2			Yes
2004	Spechard et al.	16	2	No		
2004	Kimhi & Even	16	4		No	
2006	Silke	18	1	No		
2006	Piazza	18	1			No
2006	Kruglanski & Fishman	18	2	No	Yes	Yes
2006	Taylor & Horgan	18	4	No	No	
2007	Charters	19	1			Yes
2007	Fair	20	1			Yes
2009	Trujillo et al.	21	4	No		Yes
2009	Dawson	22	1			No
2010	Merari et al.	22	1	No	Yes	Yes

*Table 2*. Articles in the journal <u>Terrorism and Political Violence</u> that contain assertions about personality and terrorism.

Notes: "No" indicates that the author asserts that a particular dimension of personality is not related to terrorism; "Yes" indicates that the author asserts that a particular dimension of personality is related to terrorism; **Bold** indicates that the author's assertion is based on data; Empty cells indicate that authors did not assert about that dimension of personality.

Complete references from Table 2:

Alam, A. (2003). The sociology and political economy of "Islamic Terrorism" in Egypt. *Terrorism and Political Violence*, *15*(4), 114-142.

Charters, D.A. (2007) Something Old, Something New...? Al Qaeda, Jihadism, and Fascism. *Terrorism and Political Violence*, 19(1), 65-93.

Dawson, L. L. (2009). The study of new religious movements and the radicalization of home-grown terrorists:

Opening a dialogue. Terrorism and Political Violence, 22(1), 1-21.

- Fair, C.C. (2007): Who Are Pakistan's Militants and Their Families? Terrorism and Political Violence, 20(1), 49-65.
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- Kruglanski, A.W., & Fishman, S. (2006). The psychology of terrorism: "Syndrome" versus "tool" perspectives. *Terrorism and Political Violence, 18*(2), 193-215.
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- Merari, A., Diamant, I., Bibi, A., Broshi, Y., & Zakin, G. (2010). Personality characteristics of "self martyrs"/"suicide bombers" and organizers of suicide attacks. *Terrorism and Political Violence*, 22(1), 87-101.
- Mullins, S. (2011). Islamist Terrorism and Australia: An Empirical Examination of the "Home-Grown" Threat. *Terrorism and Political Violence, 23*(2), 254-285.
- Nedoroscik, J.A. (2002). Extremist groups in Egypt. Terrorism and Political Violence, 14(2), 47-76.
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- Post, J. M., Ruby, K. G., & Shaw, E. D. (2000). From car bombs to logic bombs: The growing threat from information terrorism. *Terrorism and Political Violence*, *12*(2), 97–122.
- 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.
- Silke, A. (2006). The role of suicide in politics, conflict, and terrorism. *Terrorism and Political Violence, 18*(1), 35-46.
- Speckhard, A., Tarabrina, N., Krasnov, V., & Akhmedova, K. (2004). Research note: Observations of suicidal terrorists in action. *Terrorism and Political Violence*, 16(2), 305-327.
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- Trujillo, H. M., Jordan, J., Gutierrez, J. A. & Gonzalez- Cabrera, J. (2009). Radicalization in Prisons? Field Research in 25 Spanish Prisons. *Terrorism and Political Violence*, 21(4), 558-579.
- Tucker, D. (2001). What is new about the new Terrorism and how dangerous is it? *Terrorism and Political Violence*, *13*(3), 1-14.
- Weinberg, L., Pedahzur, A., & Canetti-Nisim, D. (2003). The social and religious characteristics of suicide bombers and their victims. *Terrorism and Political Violence*, 15(3), 139-153.

# Appendix **B**

	Article	Dimensions of personality				
Year	Authors	Vol.	Issue	Mental illness	Personality traits	Demographics
2000	Schbley	23	3			Yes
2003	Dolnik	26	1			Yes & No
2003	Silke	26	1	No		
2003	Schbley	26	2	Yes	Yes	Yes
2003	Cunningham	26	3			Yes
2004	Lester, Yang, & Lindsay	27	4		Yes	Yes
2004	Duyvesteyn	27	5	No	No	Yes
2004	Reinares	27	6			Yes
2005	Jordan & Horsburgh	28	3			Yes
2006	Speckhard & Ahkmedova	29	5			Yes
2006	Newman	29	8			Yes
2007	Von Knop	30	5			Yes
2007	Florez-Morris	30	7			Yes
2008	Locicero & Sinclair	31	3	No	Yes	No
2008	Jaques & Taylor	31	4	No	Yes	Yes
2008	Asal, Fair, & Shellman	31	11			Yes
2008	Speckhard	31	11	Yes		
2009	Kassel	32	3		Yes	
2009	Schwartz, Dunkel, &	32	6	No		
	Waterman					
2009	Mullins	32	6	No		No
2010	Spaaij	33	9	Yes	Yes	

*Table 3*. Articles in the journal <u>Studies in Conflict and Terrorism</u> that contain assertions about the link between personality and terrorism.

Notes: "No" indicates that the author asserts that a particular dimension of personality is not related to terrorism; "Yes" indicates that the author asserts that a particular dimension of personality is related to terrorism; **Bold** indicates that the author's assertion is based on data; Empty cells indicate that authors did not assert about that dimension of personality.

Complete references from Table 3:

- Asal, V., Fair, C. C., & Shellman, S. (2008). Consenting to a child's decision to join a Jihad: insights from a survey of militant families in Pakistan. *Studies in Conflict and Terrorism, 31*(11), 973-994.
- Berko, A. & Erez, E. (2007). Gender, Palestinian women, and terrorism: women's liberation or oppression? *Studies in Conflict and Terrorism, 30*(6), 493-519.

- Cunningham, K.J. (2003). Cross-regional trends in female terrorism. *Studies in Conflict and Terrorism, 26*(3), 171-195.
- Dolnik, A. (2003). Die and let die: exploring links between suicide terrorists and terrorist use of chemical, biological, radiological, and nuclear weapons. *Studies in Conflict and Terrorism, 26*(1), 17-35.
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- Florez-Morris, M. (2007). Joining guerrilla groups in Colombia: individual motivations and processes for entering a violent organization. *Studies in Conflict and Terrorism*, *30*(7), 615-634.
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- Kassel, W. (2009). Terrorism and the international anarchist movement of the late nineteenth and early twentieth centuries. *Studies in Conflict and Terrorism*, *32*(3), 237-252.
- Lester, D., Yang, B., & Lindsay, M. (2004). Suicide bombers: Are psychological profiles possible? Studies in Conflict and Terrorism, 27(4), 283-295.
- Locicero, A. & Sinclair, J. S. (2008). Terrorism and terrorists leaders: insights from developmental and ecological psychology. *Studies in Conflict and Terrorism, 31*(3), 227-250.
- Mullins, S. (2009). Parallels between crime and terrorism: a social psychological perspective. *Studies in Conflict and Terrorism, 32*(9), 811-830.
- Newman, E. (2006). Exploring the "root causes" of terrorism. Studies in Conflict and Terrorism, 29(8), 749-772.
- Reinares, F. (2004). Who are the terrorists? Analyzing changes in sociological profile among members of ETA. *Studies in Conflict and Terrorism, 27*(6), 465-488.
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- Silke, A. (2003). Beyond horror: terrorist atrocity and the search for understanding -the case of the Shankill bombing. *Studies in Conflict and Terrorism*, *26*(1), 37-60.
- Spaaij, R. (2010). The enigma of lone wolf terrorism: an assessment. *Studies in Conflict and Terrorism, 33*(9), 854-870.
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- Speckard. A. (2008). The emergence of female suicide terrorists. *Studies in Conflict and Terrorism, 31*(11), 995-1023.
- von Knop, K. (2007). The female Jihad: Al Qaeda's women. Studies in Conflict and Terrorism, 30(5), 397-414.

# Appendix C

	Article	Dimensions of personality				
Year	Authors	Vol.	Issue	Mental illness	Personality traits	Demographics
2007	de la Corte	1	2		Yes	
2008	Mullins	1	3	No		Yes
2008	Kaplan	2	2		Yes	Yes
2008	Atran	2	5			Yes
2008	Lia	2	8			No
2008	Weinberg	2	9			Yes
2008	Beg	2	10			Yes
2009	Leuprecht, Hataley,	3	2			Yes
	Moskalenko & McCauley					
2010	Puri	4	4			Yes
2010	Rhineheart	4	5		No	

*Table 4*. Articles in the journal <u>Perspectives on Terrorism</u> that contain assertions about personality and terrorism.

Notes: "No" indicates that the author asserts that a particular dimension of personality is not related to terrorism; "Yes" indicates that the author asserts that a particular dimension of personality is related to terrorism; **Bold** indicates that the author's assertion is based on data; Empty cells indicate that authors did not assert about that dimension of personality.

Complete references from Table 4:

Atran, S. (2008). Who becomes a terrorist today? Perspectives on Terrorism, 2(5), 3-10.

- Beg, S. (2008). The ideological battle: insights from Pakistan. *Perspectives on Terrorism*, 2(10), 3-9, [page numbers not indicated in this issue].
- de la Corte, L. (2007). Explaining terrorism: a psychological approach. *Perspectives on Terrorism*, *1*(2), [page numbers not indicated in this issue].
- Kaplan, J. (2008). Terrorism's fifth wave: a theory, a conundrum, and a dilemma. *Perspectives on Terrorism*, 2(2), 12-24.
- Lia, B. (2008). Al-Qaida's appeal: understanding its unique selling points. Perspectives on Terrorism, 2(8), 3-10.
- Leuprecht, C., Hataley, T., Moskalenko, S., & McCauley, C. (2009). Winning the battle but losing the war? Narrative and counter-narratives strategy. *Perspectives on Terrorism*, *3*(2), 25-35.
- Mullins, S. (2007). Home-grown terrorism: issues and implications. *Perspectives on Terrorism*, 1(3), [page numbers not indicated in this issue].
- Puri, N.R. (2010). The Pakistani madrassah and terrorism: made and unmade. Conclusions from the literature. *Perspectives on Terrorism*, 4(4), 51-72.
- Rineheart, J. (2010). Counterterrorism and counterinsurgency. Perspectives on Terrorism, 4(5), 32-47.
- Weinberg, L. (2008). Two neglected areas of terrorism research: careers after terrorism and how terrorists innovate. *Perspectives on Terrorism*, 2(9), 11-18.

# Appendix D

*Table 5.* Articles in the journal <u>Dynamics of Asymmetric Conflict</u> that contain assertions about personality and terrorism.

	Article		Dimensions of personality			
Year	Authors	Vol.	Issue	Mental illness	Personality traits	Demographics
2008	LaFree & Miller	1	3		No	
2010	Turcan & McCauley	3	1		Yes	
2010	Mullins	3	3		No	
2010	Lemieux & Asal	3	3		Yes	

Notes: "No" indicates that the author asserts that a particular dimension of personality is not related to terrorism; "Yes" indicates that the author asserts that a particular dimension of personality is related to terrorism; **Bold** indicates that the author's assertion is based on data; Empty cells indicate that authors did not assert about that dimension of personality.

Complete references from Table 5:

- LaFree, G. & Miller, E. (2008). Desistance from terrorism: What can we learn from criminology? *Dynamics of Asymmetric Conflict, 1*(3), 203-230.
- Lemieux, A. F. & Asal, V. H. (2010). Grievance, social dominance orientation, and authoritarianism in the choice and justification of terror versus protest. *Dynamics of Asymmetric Conflict* 3(3), 194-207
- Mullins, S. (2010). Rehabilitation of Islamist terrorists: Lessons from criminology. *Dynamics of Asymmetric Conflict, 3*(3), 162-193
- Turcan, M. & McCauley, C. (2010). Boomerang: Opinion versus action in the radicalization of Abu-Mulal al-Balawi. *Dynamics of Asymmetric Conflict*, 3(1), 14-31.

### Appendix E

	Article		Dimensions of personality			
Year	Authors	Vol.	Issue	Mental illness	Personality traits	Demographics
2008	Stohl	1	1	No		
2008	Zulaika & Douglass	1	1	No		No
2008	Booth	1	1	No	No	
2008	Weinberg & Eubank	1	2			No
2008	Dodds	1	2		No	No
2008	Toros	1	2	No		
2008	Jackson	1	2			No
2009	Svensson	2	1			Yes
2009	Lee	2	2	No		No
2009	Рарре	2	2	Yes		
2009	Michel & Richards	2	3			No
2010	Aning	3	1			Yes
2010	Malkki & Toivanen	3	2		No	
2010	Zulaika	3	2	No		
2010	Ojanen	3	2			No
2010	Holt	3	3			Yes
2010	Gordon	3	3		No	

*Table 6*. Articles in the journal <u>Critical Studies on Terrorism</u> that contain assertions about personality and terrorism.

Notes: "No" indicates that the author asserts that a particular dimension of personality is not related to terrorism; "Yes" indicates that the author asserts that a particular dimension of personality is related to terrorism; **Bold** indicates that the author's assertion is based on data; Empty cells indicate that authors did not assert about that dimension of personality.

Complete references from Table 6:

- Aning, K. (2010). Security, the War on Terror, and official development assistance. *Critical Studies on Terrorism, 3*(1), 7-26.
- Booth, K. (2008). The human faces of terror: reflections in a cracked looking- glass. Critical *Studies on Terrorism*, *I*(1), 65-79.
- Dodds, K. (2008). Screening terror: Hollywood, the United States and the construction of danger. *Critical Studies on Terrorism, 1*(2), 227-243.
- Gordon, A. (2010). Can terrorism become a scientific discipline? A diagnostic study. *Critical Studies on Terrorism, 3*(3), 437-458.

- Holt, M. (2010). The unlikely terrorist: women and Islamic resistance in Lebanon and the Palestinian territories. *Critical Studies on Terrorism*, *3*(3), 365-382.
- Jackson, R. (2008). Counter-terrorism and communities: An interview with Robert Lambert. *Critical Studies on Terrorism, 1*(2), 293-308.
- Lee, C. T. (2009). Suicide bombing as acts of deathly citizenship? A critical double-layered inquiry. *Critical Studies* on Terrorism, 2(2), 147-163.
- Michel, T. & Richards, A. (2009). False dawns or new horizons? Further issues and challenges for Critical Terrorism Studies. *Critical Studies on Terrorism, 2*(3), 399-413.
- Malkki, L. & Toivanen, R. (2010). Editors' introduction: terrorism myths, agendas and research. *Critical Studies* on Terrorism, 3(2), 243-246.
- Ojanen, T. (2010). Terrorist profiling: human rights concerns. Critical Studies on Terrorism, 3(2), 295-312.
- Pappe, I. (2009). De-terrorising the Palestinian national struggle: the roadmap to peace. *Critical Studies on Terrorism, 2*(2), 127-146.
- Stohl, M. (2008). Old myths, new fantasies and the enduring realities of terrorism. *Critical Studies on Terrorism*, I(1), 5-16.
- Svensson, T. (2009). Frontiers of blame: India's 'War on Terror'. Critical Studies on Terrorism, 2(1), 27-44.
- Toros, H. (2008). Terrorists, scholars and ordinary people: confronting terrorism studies with field experiences. *Critical Studies on Terrorism, 1*(2), 279-292.
- Weinberg, L. & Eubank, W. (2008). Problems with the critical studies approach to the study of terrorism. *Critical Studies on Terrorism, 1*(2), 185-195.
- Zulaika, J. (2010). The terror/counterterror edge: when non-terror becomes a terrorism problem and real terror cannot be detected by counterterrorism. *Critical Studies on Terrorism*, *3*(2), 247-260.
- Zulaika, J. & Douglass, W. A. (2008). The terrorist subject: terrorism studies and the absent subjectivity. *Critical Studies on Terrorism, 1*(1), 27-36.

# Appendix F

Table 7. Articles in the journal Behavioral Sciences of Terrorism and Political Aggression that contain
assertions about personality and terrorism.

	Article		Dimensions of personality			
Year	Authors	Vol.	Issue	Mental illness	Personality traits	Demographics
2009	Pyszczynski, Motyl, & Abdollahi	1	1	No	No	
2009	Kirwil, in Ramirez and Walters	1	2		Yes	
2009	Moghaddam	1	3		Yes	
2009	Ireland & Vecchi	1	3		Yes	
2010	Mullins & Dolnik	2	1		No	

Notes: "No" indicates that the author asserts that a particular dimension of personality is not related to terrorism; "Yes" indicates that the author asserts that a particular dimension of personality is related to terrorism; **Bold** indicates that the author's assertion is based on data; Empty cells indicate that authors did not assert about that dimension of personality.

Complete references from Table 7:

- Ireland, C. A. & Vecchi, G. M. (2009). The Behavioral Influence Stairway Model (BISM): A framework for managing terrorist crisis situations? *Behavioral Sciences of Terrorism and Political Aggression*, 1(3), 203-218.
- Kirwil, L. A. (2007). Who justifies extreme violence and proactive aggression use? Implications for understanding the terrorist's personality. Paper presented at the 2007 CICA-STR International Conference on Interdisciplinary Analysis on Aggression and Terrorism; the abstract was reproduced in J. Martin Ramírez & Tali K. Walters (2009). Interdisciplinary analyses of aggression and terrorism. Behavioral Sciences of Terrorism and Political Aggression, 1(2), 127-150.
- Moghaddam, F. M. (2009). Violent Islamist extremism in global context: Statement to the United States Senate Committee on Homeland Security and Government Affairs. *Behavioral Sciences of Terrorism and Political Aggression, 1*(3,) 164-171.
- Mullins, S. & Dolnik. A. (2010). An exploratory, dynamic application of Social Network Analysis for modelling the development of Islamist terror-cells in the West. *Behavioral Sciences of Terrorism and Political Aggression*, 2(1), 3-29.
- Pyszczynski, T., Motyl, M. & Abdollahi, A. (2009). Righteous violence: killing for God, country, freedom and justice. *Behavioral Sciences of Terrorism and Political Aggression, 1*(1), 12-39



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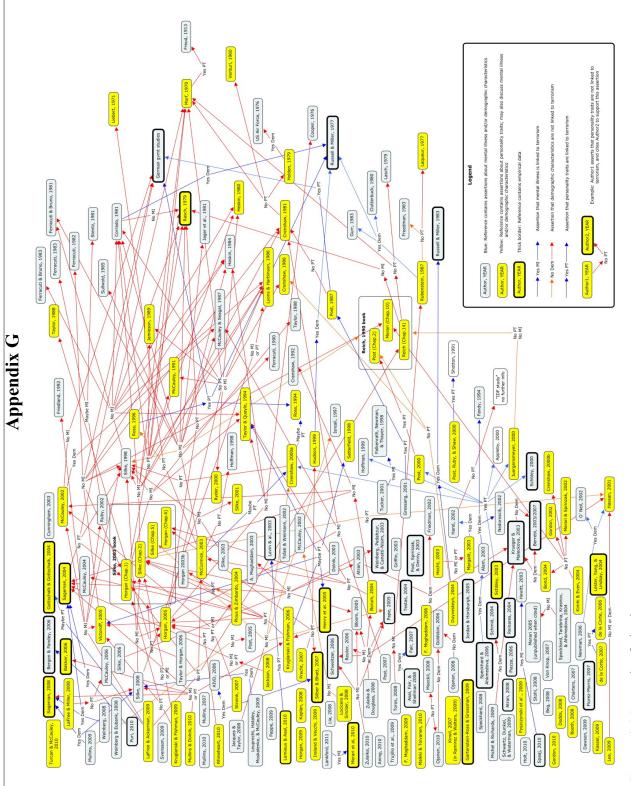


Figure 1. Network of citations.