

## Investigating the Individual Terrorist in Europe

J. Reid Meloy  
University of California, San Diego

Karoline Roshdi, Justine Glaz-Ocik, and  
Jens Hoffmann  
Institute of Psychology and Threat Management,  
Darmstadt, Germany

The Terrorist Radicalization Assessment Protocol (TRAP-18) comprises 8 proximal warning behaviors and 10 distal characteristics, and is a rationally derived investigative template for risk of individual terrorism. It is coded on a sample of 22 individuals who carried out acts of terrorism in Europe between 1980 and 2015. Seven of these individuals formed autonomous cells. Mean interrater reliability was 0.895, and ranged from good to excellent across all variables. Content validity was suggested wherein a majority of individuals who acted alone were positive on 72% of the variables, and a majority of individuals who acted in autonomous cells were positive on 72% of the variables. There was no significant difference between any of the variables when the terrorists who acted alone were compared with those in autonomous cells, other than a more frequent history of criminal violence among the latter. Specificity was not tested because there was no nonterrorist comparison group. The TRAP-18 appears to have promise as an investigative template and supports the recommendations of Monahan (2012) for the further development of a structured professional judgment instrument for individual terrorism.

*Keywords:* terrorism, targeted violence, risk assessment, lone terrorists, predatory violence

There has been a plethora of research on the lone actor terrorist, lone offender, or so-called “lone wolf” over the past several years, expanding our theoretical and empirical understanding of these individuals who typically target non-combatant civilians for religious, secular, or single-issue reasons (Borum, 2014; Borum, Fein, & Vossekuil, 2012; Brynielsson et al., 2013; Cohen, Johansson, Kaati, & Mork, 2014; Cook, Hart, & Kropp, 2013; Corner & Gill, 2014; Gill, 2015; Gill, Horgan, & Deckert, 2014; Gill, Horgan, Hunter, & Cushenbery,

2013; Gruenwald, Chermak, & Freilich, 2013; Hamm & Spaaij, 2015; Meloy, 2011; Meloy & Yakeley, 2014; Monahan, 2012, in press; Pressman, 2009; Sageman, 2008; Simon, 2013; Spaaij, 2012; van der Heide, 2011; Weenink, 2015). Attempts to develop risk-assessment instruments, however, have been less successful, typically beset by five problems: first, the traditional finding in the violence research that historical factors are the best predictors of future violence risk (Monahan et al., 2001), which appear to have less relevance for lone terrorists; second, the lack of efforts to draw a distinction between affective and predatory (reactive and instrumental) violence in traditional risk-assessment research (Viding & Frith, 2006), the latter being the domain of terrorists; third, the lack of attention to proximal and dynamic behaviors for short-term risk-assessment purposes, which has recently begun to change (Douglas & Skeem, 2005); fourth, the general inability of academic researchers in violence risk to access individuals who are considered terrorists, either in custody or in the community, due to national security protection of such in-

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J. Reid Meloy, Department of Psychiatry, School of Medicine, University of California, San Diego; Karoline Roshdi, Justine Glaz-Ocik, and Jens Hoffmann, Institute of Psychology and Threat Management, Darmstadt, Germany.

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Correspondence concerning this article should be addressed to J. Reid Meloy, Department of Psychiatry, University of California, San Diego, School of Medicine, 9500 Gilman Dr., La Jolla, CA 92093. E-mail: [reidmeloy@gmail.com](mailto:reidmeloy@gmail.com)

formation (Monahan, 2012); and fifth, the conflation of the terms prediction and prevention, which are distinctly different, leading to the erroneous conclusion that without the former the latter is impossible when considering rare acts of targeted violence. Efforts to surmount these problems have sometimes been informed by the subspecialty of threat assessment and management, which focuses on risk mitigation of targeted or intended violence (Fein, Vossekuil, & Holden, 1995; Meloy & Hoffmann, 2014).

With these issues in mind, we introduce the Terrorist Radicalization Assessment Protocol (TRAP-18), an investigative template for operational purposes. This matrix is not yet a risk-assessment instrument because of insufficient demonstrable validity, but our intent is to aid those mental health, criminal justice, intelligence, and security professionals whose task is to protect the public from acts of the individual terrorist, regardless of his or her ideological commitment. The TRAP-18 comprises 8 proximal warning behaviors (Meloy, Hoffmann, Guldman, & James, 2012) and 10 dynamic and often more distal characteristics of the lone terrorist (Meloy & Yakeley, 2014), combined by Meloy to offer a preliminary template for the prioritization of cases of concern.

Our purpose in this study is to test the interrater reliability and content validity of the TRAP-18 with a small sample of individual terrorists in Europe. Such findings, if acceptable, will provide data that support the ecological validity of the TRAP-18 when used in the real world of individual terrorists, who either act alone or in autonomous cells, to assess their preoffense behaviors.

## Method

### Sample Selection

The primary search criteria for identifying cases for this study was that the perpetrator had a clear terrorism motivation as defined by the U.S. Code of Federal Regulations: “the unlawful use of force or violence committed by a group or individual against persons or property to intimidate or coerce a government, civilian population, or any segment thereof, in furtherance of political or social objectives” (28 C.F.R. Section 0.85, U.S. Code of Federal Regula-

tions). This is similar to the European Union Council definition of terrorism: “intentional acts that are committed with the aim of seriously intimidating a population, or unduly compelling a government or international organization to perform or abstain from performing any act, or seriously destabilizing or destroying the fundamental political, constitutional, economic or social structures of a country or an international organization” (European Union Council, 2002)—although this latter definition has been criticized for being too broad. Cases were sought between 1980 and 2015 to strive for contemporary relevance and have a sufficient sample size for rudimentary analysis.

Furthermore, the individual terrorists selected for this study did not belong to an organized terrorist group or network, and their intended violence was conceived by, prepared for, and implemented without any external command or control (Borum et al., 2012; Meloy & Yakeley, 2014; Spaaij, 2012). We also included individuals who operated in small autonomous cells, which allowed for additional analysis.

Finally, cases were included only if the perpetrators had a lethal intent and actually committed their act. Only perpetrators who were directly involved in the attacks were considered. For example, one member of the small German cell NSU, Beate Zschäpe, was not included in this sample because she did not commit any attack.

International literature about “lone wolf” terrorism, online newspaper archives, and Internet search engines identified incidents of attacks in Europe.

A total of 25 perpetrators and 21 cases between 1980 and 2015 were found. Two cases and three perpetrators were excluded because there was insufficient information for coding. These acts were the killing by Mostafa Chaouki (March 29, 2004, in Italy) and the suitcase bombers Youssef Mohamad El Hajdib and Dschihad Hamad (July 31, 2006, in Germany).

Nineteen cases involving 22 perpetrators were utilized. Seven of the individual terrorists were members of three autonomous cells; two autonomous cells were composed of 2 individual terrorists and one had 3 members. The first cell was the German NSU (National Socialist Underground). They were right-wing extremists and were responsible for at least 12 attacks between the years 2000 and

2007. In 2013, two individual terrorists killed the soldier Lee Rigby in the United Kingdom. This was the second cell. The third cell acted in January, 2015: The Kouachi brothers went into the editorial office of the satire magazine *Charlie Hebdo* and killed 12. One day after that attack the Porte de Vincennes hostage crisis occurred. The attacker Coulibaly said the Charlie Hebdo shooting and his attack were coordinated (Borger, 2015).

Fifteen individual terrorists acted alone, thus forming two subgroups. Two cases were not lethal. The sample and its demographic data are listed in Table 1. All percentages in the narrative are based upon the known *n*, which is in parentheses.

Twenty-one (95.5%; *n* = 22) of the offenders were male, and 1 was female (4.5%). The average age was 31 years (*SD* = 7.97; *n* = 22). The oldest attacker was 50 and the youngest 21

years old. Among the terrorists who acted alone, the average age was 30 (*SD* = 9.14; *n* = 15); the oldest one was 50 and the youngest 21 years. The terrorists within the autonomous cells had an average age of 28 (*SD* = 4.85; *n* = 7) with a range from 22 to 38 years. There was virtually no age difference between the two subgroups.

The majority of terrorists never married (61.9%; *n* = 21), 7 were married (33.3%), and 1 offender was divorced (4.8%). Most of the terrorists who acted alone never married (78.6%; *n* = 14), 2 were married (14.3%), and 1 was divorced (7.1%). In stark contrast, most of the terrorists within the autonomous cells were married (71.4%; *n* = 5); 2 had never married (28.6%). One of these, however, did have a girlfriend.

Fourteen terrorists who acted alone had no children (78.6%), and one had three children (21.4%). Five terrorists in the autonomous cells

Table 1  
*Demographic Data of Individual Terrorists Who Acted Alone or Were Members of an Autonomous Cell*

Name	Country	Year of (first) attack	Age at (first) attack, years	Gender	Marital status	Employment	Children	Lethal attack
<i>Individual terrorists</i>								
Gundolf Köhler	DE	1980	21	M	Single	No employment	No	Yes
John Ausonius	SWE	1991	38	M	Single	No employment	No	Yes
Franz Fuchs	AT	1993	43	M	Single	No employment	No	Yes
David Copeland	UK	1999	22	M	Single	Full employment	No	Yes
Volkert van der Graaf	NL	2002	32	M	Single	Full employment	Yes	Yes
Mohammed Bouyeri	NL	2004	26	M	Single	No employment	No	Yes
Peter Mangs	SWE	2009	39	M	Single	Missing	No	Yes
Mohammed Game	IT	2009	35	M	Married	No employment	Yes	No
Taimour Abdulwahab al-Abdal	SWE	2010	29	M	Married	Missing	Yes	Yes
Roshonara Choudhry	UK	2010	21	F	Single	No employment	No	No
Arid Uka	DE	2011	21	M	Single	Underemployment	No	Yes
Gianluca Casseri	IT	2011	50	M	Missing	Missing	Missing	Yes
Anders Brevik	NOR	2011	32	M	Single	No employment	No	Yes
Mohammed Merah	FR	2012	24	M	Divorced	No employment	No	Yes
Omar Abdel Hamid El-Hussein	DK	2015	22	M	Single	No employment	No	Yes
<i>Autonomous cells</i>								
Uwe Mundlos	DE	2000	27	M	Single	No employment	No	Yes
Uwe Böhnhard	DE	2000	22	M	Single	No employment	No	Yes
Michael Adebolajo	UK	2013	28	M	Married	Missing	Yes	Yes
Michael Adebowale	UK	2013	22	M	Single	Missing	No	Yes
Cherif Kouachi	FR	2015	32	M	Married	Missing	No	Yes
Said Kouachi	FR	2015	34	M	Married	No employment	Yes	Yes
Amedy Coulibaly	FR	2015	32	M	Married	Full employment	No	Yes

Note. DE = Denmark; SWE = Sweden; AT = Austria; UK = United Kingdom; NL = Netherlands; IT = Italy; NOR = Norway; FR = France; DK = Denmark; M = male; F = female.

had no children (71.4%), and 2 had one or more biological offspring (28.6%).

The data for employment at the time of the attack were virtually the same between groups. Nine terrorists who acted alone had no employment (75%;  $n = 12$ ), 1 was underemployed given his education (8.3%), and 2 were fully employed at the time of the attack. Three individuals within the autonomic cells were unemployed (75%;  $n = 4$ ) at the time of the attack, and 1 person (25%) was fully employed. There was no underemployment among members of the autonomic cells.

Three individual terrorists (25%;  $n = 12$ ) did not complete high school, 5 (41.7%) completed high school, 2 (16.7%) attended college but did not graduate, and another 2 (16.7%) graduated from college. However, data were missing for this variable for half the cases.

### Data Extraction and Analysis

A codebook was developed for the 8 proximal warning behaviors (Meloy & O'Toole, 2011; Meloy, 2011; Hoffmann et al., 2011; Meloy et al., 2012; Meloy et al., 2014b) and 10 distal characteristics of the lone terrorist (Meloy & Yakeley, 2014), which were combined and conceptualized as the TRAP-18. The interrater reliability (kappa) was calculated for the 8 warning behaviors and the 10 characteristics. All data were examined for inferential statistical testing for significance between the individual terrorists and the autonomic cells. All coding was binary (present or absent), with a notation if there was insufficient information.

### Definition of Terms

**The warning behavior typology.** The typology consists of 8 eight warning behaviors, proximal and dynamic patterns that may indicate accelerating risk for targeted violence. The warning behaviors are not discrete variables, but patterns for analysis (Meloy et al., 2014b; Guldemann, Hoffmann, & Meloy, 2013). Typologies can provide a framework to help think about multiple dimensions of a problem and how those dimensions might interact (Borum et al., 2012); pattern analysis has its roots in gestalt psychology (Koffka, 1921; Köhler, 1929; Wertheimer, 1938) and capitalizes on normal cognitive perception to organize bits of detail into meaningful patterns. The data were coded as present if any preoffense

behavior was found to have a reasonably certain fit with the proffered descriptions.

1. *Pathway* warning behavior is research, planning, preparation, or implementation of an attack (Calhoun & Weston, 2003; Fein & Vossekuil, 1998).
2. *Fixation* warning behavior indicates an increasingly pathological preoccupation with a person or a cause, accompanied by a deterioration in social and occupational life (Mullen et al., 2009).
3. *Identification* warning behavior indicates a psychological desire to be a pseudocommando (Dietz, 1986; Knoll, 2010), have a warrior mentality (Hempel, Meloy, & Richards, 1999), closely associate with weapons or other military or law enforcement paraphernalia, identify with previous attackers or assassins, or identify oneself as an agent to advance a particular cause or belief system (Meloy, Mohandie, Knoll, & Hoffmann, 2015).
4. *Novel Aggression* warning behavior is an act of violence that appears unrelated to any targeted violence pathway and is committed for the first time (Meloy et al., 2012).
5. *Energy Burst* warning behavior is an increase in the frequency or variety of any noted activities related to the target, even if the activities themselves are relatively innocuous, usually in the days or weeks before the attack (Meloy et al., 2012; Odgers et al., 2009).
6. *Leakage* warning behavior is the communication to a third party of an intent to do harm to a target through an attack (Meloy & O'Toole, 2011).
7. *Last Resort* warning behavior is evidence of a "violent action imperative" and "time imperative" (Mohandie & Duffy, 1999); it is often a signal of desperation or distress.
8. *Directly Communicated Threat* warning behavior is the communication of a direct threat to the target or law enforcement beforehand (Meloy et al., 2012).

### The 10 distal characteristics of the individual terrorist.

1. *Personal Grievance and Moral Outrage* join both personal life experience and particular historical, religious, or

political events. The personal grievance is often defined by a major loss in love or work, feelings of anger and humiliation, and the blaming of others. Moral outrage is typically a vicarious identification with a group that has suffered, even though the individual terrorist has usually not experienced the same suffering, if any at all.

2. *Framed by an Ideology* is the presence of a belief system that justifies the terrorist's intent to act. It can be a religious belief system, a political philosophy, a secular commitment, a one-issue conflict, or an idiosyncratic justification (Meloy & Yakeley, 2014; Simon, 2013).
3. *Failure to Affiliate with an Extremist Group* is defined by the actual failure or rejection of the individual terrorist from a radical or extremist group that he wants to join.
4. *Dependence on the Virtual Community* is evidence of the individual terrorist's active communication with others through social media, chat rooms, e-mails, listservs, texting, tweeting, and so forth about his radical or extreme beliefs.
5. *Thwarting of Occupational Goals* is a major setback or failure in a planned occupational life course.
6. *Changes in Thinking and Emotion* is indicated when thoughts and their expression become more strident, simplistic, and absolute. Argument ceases, and preaching begins. Persuasion yields to imposition of one's beliefs on others. There is no critical analysis of theory or opinion, and the mantra "Do not think, just believe" is adopted. Emotions typically move from anger and argument, to contempt and disdain for others' beliefs, to disgust for the outgroup and a willingness to homicidally aggress against them. Violence is cloaked in self-righteousness and the pretense of superior belief. Humor is lost.
7. *Failure of Sexually Intimate Pair Bonding and the Sexualization of Violence* is coded if the subject has historically failed to form a lasting sexually intimate relationship. The sexualization of violence was difficult to code in all cases. It refers to the secondary finding of a sexual component in the subject that appears to substitute for the ab-

sence of a sexual pair bond, such as the sexualization of weapons, the anticipation of unlimited sexual gratification in the afterlife, the exclusive use of prostitutes and other unbonded sources of sexual gratification, or compulsive use of pornography: All of these behaviors are somehow rationalized by the ideology, for example, the adoption of Westernized democratic "perversions" is acceptable because they help maintain operational secrecy.

8. *Nexus of Psychopathology and Ideology* is coded if there was evidence of a major mental disorder by history or at present. Whether or not ideology helped buffer the symptoms of mental disorder was a secondary, but important consideration (Meloy & Yakeley, 2014).
9. *Greater Creativity and Innovation* is coded if there was evidence of tactical thinking "outside the box," often due to a lack of bureaucratic stifling or the burden of needed approval from others within a terrorist organization (Meloy & Yakeley, 2014; Simon, 2013).
10. *Predatory Violence* is coded if there was evidence of instrumental criminal violence by history separate from the act of terrorism. Predatory violence contrasts with affective violence, which is an emotional and reactive mode of violence to an imminent threat (Meloy, 1988, 2006). There is an extensive body of research that indicates that these modes of violence are biologically distinctive in mammals (Siegel & Victoroff, 2009). Predatory violence also biologically underpins the pathway warning behavior, which is concerned with late-stage tactical markers, but here is coded only if found in a subject's history of instrumental criminal violence. Virtually all acts of terrorism are predatory (instrumental) violence. This characteristic indicates both a capacity and a willingness to engage in predation in the past for a variety of reasons, such as a history of armed robberies or planned assaults on others.

## Results

### Interrater Reliability

The interrater reliability of the TRAP-18 (8 proximal warning behaviors and 10 distal char-

acteristics) was calculated for the whole sample ( $n = 22$  subjects; 396 codings) by two raters (Karoline Roshdi and Justine Glaz-Ocik) who are experts in the field of threat assessment and management. Cohen's kappa for these variables is shown in Table 2 for the warning behaviors and in Table 3 for the 10 distal characteristics. All  $k$  values ranged from good to excellent (Landis & Koch, 1977).

Average kappa for the TRAP-18 was 0.895 for interrater reliability.

### Results of Proximal Warning Behaviors

Figure 1 and Table 4 outline the proximal warning behaviors of the TRAP-18 for the individual terrorists who acted alone and those who composed an autonomous cell. Figure 1 represents in a frequency graph the percentage of those subjects where the data were known who evidenced the warning behaviors. The individual terrorists who acted alone and those who were members of autonomous cells show no significant frequency differences across the eight warning behaviors, with six out of eight warning behaviors (pathway, fixation, identification, energy burst, leakage, and last resort) present in virtually all cases. Novel aggression was present in less than half the cases—although ability to code for this warning behavior was present in less than half the cases. Direct threats were present in 20% of the individual terrorists who acted alone, and completely absent in the autonomous cell subjects.

### Results of Distal Characteristics

Figure 2 and Table 5 outline the 10 distal characteristics of the TRAP-18 in both frequency graph and tabular form. Here, there

Table 3  
*Cohen's Kappa for Distal Characteristics*

Distal characteristic	Kappa
Personal grievance and moral outrage	1
Framed by an ideology	1
Failure to affiliate with an extremist group	0.754
Dependence on the virtual community	1
Thwarting of occupational goals	1
Changes in thinking and emotion	1
Failure of sexually intimate pair bonding and the sexualization of violence	0.808
Nexus of psychopathology and ideology	1
Greater creativity and innovation	0.765
Predatory violence by history	1

are differences, with one of them significant, between those who acted alone and members of an autonomous cell. The most prominent characteristics that appeared in virtually all individual terrorists when data were known are personal grievance and moral outrage, framed by an ideology, and changes in thinking and emotion. The majority of the terrorists who acted alone also showed thwarting of occupational goals, failure of sexual pair bonding, nexus of psychopathology and ideology, and greater creativity and innovation. Failure to affiliate with an extremist group, a history of predatory violence, and dependence on a virtual community were present in a minority of cases.

Among those subjects within an autonomous cell, there was a complete absence of failure to affiliate and dependence on a virtual community. A minority of these subjects showed a nexus between psychopathology and ideology, and failure to sexually pair bond. The majority, however, did show a thwarting of occupational goals and greater creativity and innovation. All perpetrators when data were known had a history of predatory criminal violence. The difference between individual terrorists and autonomous cell terrorists on predatory violence—a history of criminal violence—was significant and showed a large effect size ( $p = .0048$ ,  $\phi = .70$ , Fisher's exact test). The one characteristic where there was a noticeable absence of data was failure to affiliate with an extremist group. In all other characteristics there were known data for 19–22 subjects. There were no other significant differences.

Table 2  
*Cohen's Kappa for Warning Behaviors*

Proximal warning behavior	Kappa
Pathway	1
Fixation	1
Identification	0.817
Novel aggression	0.691
Energy burst	0.7
Leakage	0.909
Direct threat	0.835
Last resort	0.761

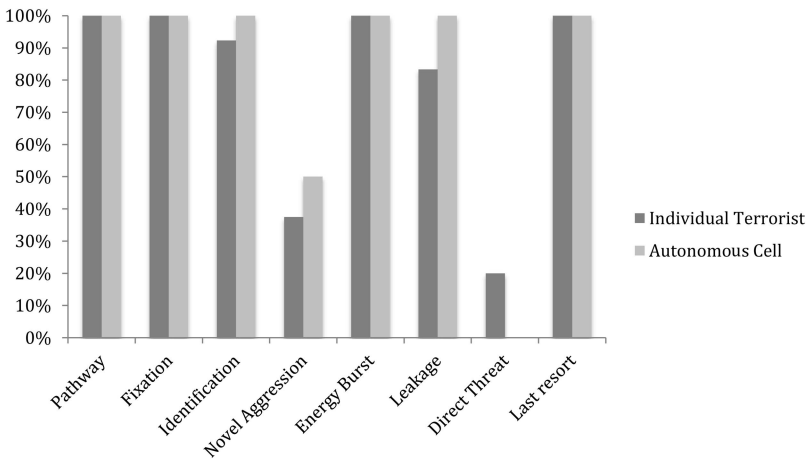


Figure 1. Proximal warning behaviors, individual terrorist versus autonomous cell. The percentage for the known  $N$  is reported.

## Discussion

The TRAP-18 appears to demonstrate both good-to-excellent interrater reliability and content validity when applied to a small sample of individual terrorists in Europe—both lone actors and members of autonomous cells—over the past 35 years. The majority of the cases, moreover, occurred during the past decade. The TRAP-18 is composed of 8 patterns of warning behavior and 10 distal characteristics, which combine to form a rationally derived theoretical model for the investigation of individuals who are a concern to mental health, law enforcement, intelligence, or national security professionals for committing an act of ideologically motivated targeted violence.

Table 4  
*Warning Behaviors of the Individual Terrorists and Autonomous Cells*

Warning behavior typology	Individual terrorist		Autonomous cell	
	%	$N$	%	$N$
Pathway	100	15	100	7
Fixation	100	15	100	7
Identification	92.3	13	100	7
Novel aggression	37.5	8	50	2
Energy burst	100	11	100	5
Leakage	83.3	12	100	5
Direct threat	20	15	0	7
Last resort	100	11	100	6

The eight warning behaviors within the TRAP-18 were first introduced as a typology of warning behaviors for targeted violence in general (Meloy, 2011). These warning behaviors were theorized to be proximally related to the act, and therefore could provide an initial investigative focus to determine whether or not the case should be prioritized for more intensive risk management. The warning behavior typology was constructed on the basis of the work of preceding researchers, including James et al. (2007, 2008, 2009), Fein and Vossekuil (1998, 1999), Calhoun and Weston (2003), Mullen et al. (2009), and Dietz and Martell (1989). Subsequent research to test the empirical validity of these warning behaviors has been fruitful, including their content validity (Hoffmann, Meloy, Guldemann, & Ermer, 2011; Meloy et al., 2014b) and discriminant validity (Meloy et al., 2014a). Five of the warning behaviors—pathway, fixation, identification, novel aggression, and last resort—were able to distinguish between a small sample of German school shooters and other students of concern who had no intent to act. The effect sizes were large (Meloy et al., 2014a). In another area of science, the Swedish Defense Research Agency continues to explore several of the warning behaviors as signals to identify lone wolf online behavior through data mining and linguistic analysis (Brynielsson et al., 2013; Cohen et al., 2014).

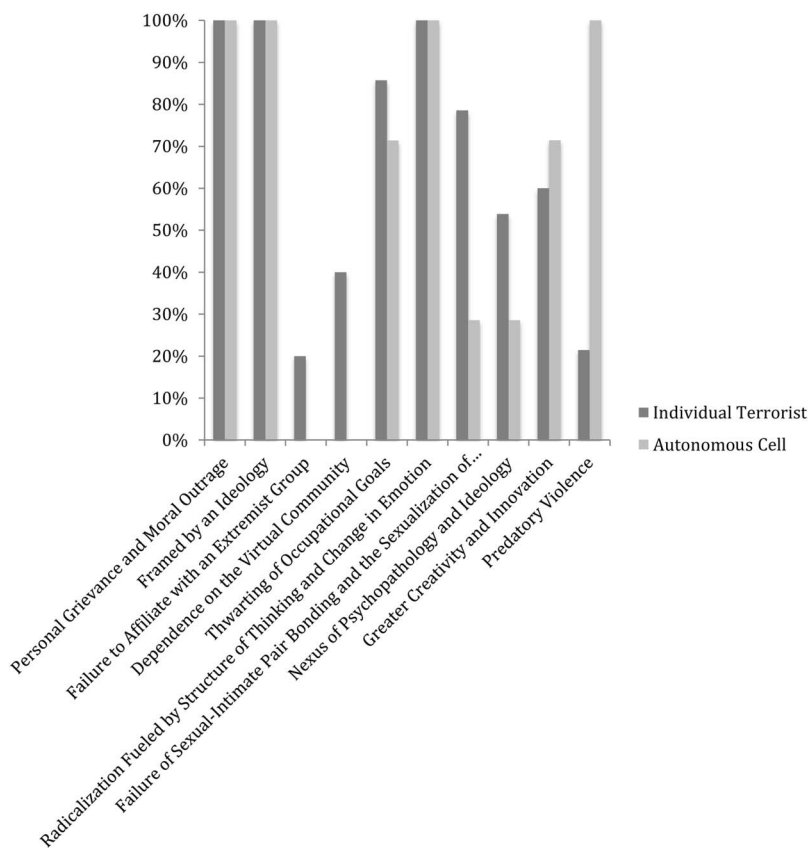


Figure 2. Distal characteristics, individual terrorist versus autonomous cell. The percentage for the known *N* is reported.

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The 10 distal characteristics were rationally derived by Meloy and Yakeley (2014) from their work, and the work of others in the field of terrorism. It is a psychodynamic and psychosocial model that attempts to bring coherent theory to the multitude of disparate details concerning terrorists that have accumulated through the years (see Gill, 2015). It has heretofore never been empirically tested, but appears to have both interrater reliability and content validity.

The practical characterization of the TRAP-18 is an investigative template. There is as yet insufficient validity to utilize the TRAP-18 as a structured professional judgment (SPJ) instrument, and it will never be a predictive measure of targeted violence risk due to the very low base rate for such behaviors, even in a population of concern. This study also does not

demonstrate the ability of the TRAP-18 to distinguish between those individuals who will and will not mount a violent attack because we had no comparison group. It is essentially a measure of the goodness of fit with real-world individual terrorist preoffense behaviors. In that sense, it appears useful because the majority of individual terrorists who acted alone were positive on 13 of 18 variables (72%); and the majority of individual terrorists who acted in autonomous cells were positive for 13 of 18 variables (72%). The only significant difference between the groups was the history of criminal violence among all of the members of the autonomous cells, and only one out of five of the individual terrorists. These findings contribute to the ecological validity of the instrument (Brewer & Crano, 2000).



Table 5  
*Ten Characteristics of the Individual Terrorist*

Distal characteristic	Individual terrorist		Autonomous cell	
	%	<i>N</i>	%	<i>N</i>
Personal grievance and moral outrage	100	15	100	7
Framed by an ideology	100	15	100	7
Failure to affiliate with an extremist group	20	10	0	5
Dependence on the virtual community	40	15	0	7
Thwarting of occupational goals	85.70	14	71.40	7
Changes in thinking and emotion	100	15	100	5
Failure of sexually intimate pair bonding and the sexualization of violence	78.57	14	28.57	7
Nexus of psychopathology and ideology	53.85	13	28.57	7
Greater creativity and innovation	60	15	71.43	7
Predatory violence by history*	21.43	14	100	5

\*  $p = .0048$ ;  $\phi = .70$ .

The TRAP-18 theory and findings appear to be consistent with, and further inform the work of others in this field. Monahan (2012) recommended that promising domains for the development of a risk-assessment instrument in this field include grievances, ideologies, affiliations, and moral emotions, which this instrument has defined and incorporated to a large extent. Spaaij (2012) and Gill (2015; Corner & Gill, 2015) have challenged the assumption that all terrorists are normal and show no psychopathology (Sageman, 2008; Post, 2007) with empirical data, which is also supported by this study and the notable proportion of mental disorder among the subjects. Weenink (2015) in his study of 140 subjects who traveled from the Netherlands to Syria found that behavioral problems and disorders were overrepresented. He wrote, “[O]ur study offers little room for the *tabula rosa* approach of social psychologists who maintain that radicals are people just like you and me, and the environment is all that explains radicalization” (Weenink, 2015, p. 29). Hamm and Spaaij (2015) in their study of 98 U.S. lone wolf terrorists, found that the subjects began with a personal and political grievance, which became the basis for an affinity with an extremist group. This led to the identification of an enabler, the broadcasting of intent, and a precipitating event. Their findings are quite consistent with our respective variables of personal grievance and moral outrage, dependence on the virtual community, identification as a warning behavior, leakage, failure to form a sexual pair bond, and the thwarting of occupational goals.

Borum (2014) has stressed the importance of focusing upon the motivational, attributional, volitional, emotional, attitudinal, and worldview propensities for discerning whether or not an individual is on a pathway toward terrorist violence.

### Practical Application

The presence of distal characteristics of the TRAP-18 should bring attention to a subject for monitoring. The presence of warning behaviors should focus the work on active risk management. The most useful analogy was developed by Monahan and Steadman (1996), who delineated the parallels between violence risk assessment and weather forecasting. When applied to the TRAP-18, the presence of a cluster of distal characteristics would indicate the need for a *Watch* approach to the case, that is, active monitoring; the presence of any proximal warning behaviors would indicate the need for a *Warning* approach, that is, active risk management. Monahan and Steadman (1996) also noted the usefulness of categorization of communicated risk (rather than attempting a probability statement) when the base rate for violence, in this case terrorist violence, is extremely low, yet the potential consequences are severe. In the case of the TRAP-18, imminency of risk, although not yet empirically demonstrated, would strongly suggest that the proximal warning behaviors be coded first. We would also recommend that the TRAP-18 be used in conjunction with other assessment tools, such as the *Multi-Level*

*Guidelines for the Assessment and Management of Group-Based Violence* (MLG; Cook et al., 2013) and the VERA (Pressman, 2009) to capitalize on the greater accuracy of multimethod assessment practice.

Another assumption of the TRAP-18 is that historical variables, although most predictive of long-term general violence (see, e.g., the HCR-20 V3, Douglas, Hart, Webster, & Belfrage, 2013; and the VRAG-R, Harris, Rice, Quinsey, & Cormier, 2015), should not be the focus of short-term risk management of targeted violence; the presence of dynamic variables, and efforts to alter them, are most important for preventing such acts (Gray et al., 2004; McNeil, Gregory, Lam, Binder, & Sullivan, 2003; Nicholls, Brink, Desmarais, Webster, & Martin, 2006; Skeem & Mulvey, 2001;). Prevention, moreover, does not require prediction. The paradox is that the professional involved in such risk management will usually never know whether the act would have occurred if he or she had not intervened. Nevertheless, the operational necessity to focus upon dynamic functions, rather than static diagnoses or historical factors in the investigation of individual terrorists, is key (see Meloy, Habermeyer, & Guldman, 2015).

### Limitations

The sample in this study was quite small, and all findings should be treated as preliminary. There may be some contamination between the independent variable, terrorism, and the second distal characteristic functioning as a dependent variable, framed by an ideology. There also may be redundancy among the 18 variables that has yet to be measured. Information for this study was secondary (Internet search engines, online newspaper articles) and not primary (court records, police investigative reports), which reduces reliability and validity, although much effort was made to confirm all data from at least two independent sources. Other normal cognitive biases may also have influenced the results, such as confirmatory bias on the part of the researchers who coded the cases and interpreted the data, who all have a personal stake in previous publications concerning the warning behaviors. Observational bias, availability bias, and hindsight bias may have influenced the original source reporting on the cases, and there

also may be variables unknown to the researchers that contribute as much content validity to understanding the problem of individual terrorism as those within the TRAP-18. Further research by independent groups is warranted to confirm or disconfirm its merit.

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