

Assessing Risk for Terrorism Involvement

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The challenge of counterterrorism focuses increasingly on prevention. In this effort, nations are starkly confronted with questions about which people are likely to engage in terrorist action. Though a variety of risk assessment technologies are available for a range of populations and types of violent behavior, a robust empirical foundation does not yet exist for understanding the risk of terrorism or involvement in violent extremist activity. A structured assessment process that is systematic, transparent, and reliant on current evidence would serve the interests of both procedural fairness and substantive security, but a simple process of tallying risk factors is unlikely to be effective. This study outlines some of the foundational concepts and challenges for developing approaches to assess individuals' risk of terrorism involvement and violent extremist activity. It begins by examining the concept of risk assessment as it pertains to involvement in terrorism. Next, it suggests a series of guiding principles for developing a risk assessment approach. Finally, it outlines what a formulation-based risk assessment model for terrorist involvement might look like, at least conceptually.

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The challenge of counterterrorism focuses increasingly on prevention. In this effort, nations are starkly confronted with questions about which people are likely to engage in terrorist action. At the front-end of the process, law enforcement and intelligence professionals must assess persons of concern before they become involved in planning or executing a terrorist attack. Further toward the back-end, detention facilities and so-called de-radicalization programs must determine which known or potential terrorists may be released, when, and under what circumstances (Bjorgo & Horgan, 2009; Horgan, 2009; Horgan & Braddock, 2010). Because the subjects of these inquiries might pose a threat to the nation's security, decisions about their risk are particularly weighty ones (Monahan, in Press).

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risks of terrorism involvement and violent extremist activity. It begins by examining the concept of risk assessment as it pertains to involvement in terrorism. Next, it suggests a series of guiding principles for developing a terrorism-related risk assessment approach. Finally, it outlines what a formulation-based risk assessment model for terrorist involvement might look like, at least conceptually.

Risk and Violent Extremism

The concepts of risk and of risk assessment have been studied extensively over the past 50 years in a variety of disciplines and for a range of different applications (Aven 2010a, 2010b; Blanchard, Griebel, Pobbe, & Blanchard, 2011; Haimes, 2009; Johansen, 2010; Jore & Nja, 2010; Otto & Douglas, 2010; Roeser, Hillerbrand, Sandin, & Peterson, 2012). Over the past 25 years, *risk* has been defined and discussed alternatively as a hazard, a probability, a consequence, or a combination of probability and severity of consequence (National Research Council, 2007). From a security perspective, the *U.S. Department of Homeland Security's Risk Lexicon* defines risk as "potential for an adverse outcome assessed as a function of threats, vul-

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nerabilities, and consequences associated with an incident, event, or occurrence” (p. 27).

Risk, in most definitions, involves more than the likelihood or probability that an adverse event will occur. Likelihood and uncertainty are key elements of risk, but so are other features of the hazard (adverse event) itself (Roeser et al., 2012). An assessment of risk, therefore, as it might relate to terrorism involvement, immediately prompts a series of questions such as: Risk for what? By whom? To whom? In what time-frame? These questions can help to shape the selection of an approach.

This study adopts what Heilbrun (1997) regards as a “broad” definition of risk assessment; one that views behavioral forecasting and decision-making to be integrated with risk communication and risk management/prevention. Functionally, risk is viewed as a problem to be solved, rather than as a prediction to be rendered. Accordingly, this study assumes a pragmatic, problem-solving posture in defining individualized risk assessment as *the process of collecting and considering information about a person and the situations and contexts that person is likely to encounter in order to describe and evaluate the potential that the person will engage in jeopardous behavior and prevent or mitigate the behavior and its adverse consequences*.

Considerations for an Approach to Assessing Terrorism-Related Risks

Any systematic approach to risk assessment must consider a set of core questions: what outcome or hazard is being assessed; what data should be considered (and possibly collected); and how will the risk judgment or decision be reached. This section will analyze these questions as they pertain to individual risk for terrorism involvement.

What Risk Outcome Is Being Assessed?

A looming question for any terrorism-related risk assessment is how best to define the outcome: What does it mean to be “involved in terrorism”? Terrorism is a broadband concept encompassing a range of activities and comprising at least three phases: becoming involved, remaining involved or engaged (often changing

roles), and sometimes disengagement (Horgan, 2008; Horgan & Taylor, 2011).

People can be “involved in terrorism” in a variety of ways, and those ways can change over time. Terrorism is most obviously associated with “direct action” or attacks, but being *involved* in terrorism potentially involves a much broader spectrum of activity (Horgan & Taylor, 2011). The nature of that full range of activity, however, has not been systematically investigated or categorized.

As Horgan (2008) describes, these different activities often correspond to different roles. We know that roles within violent extremist movements tend to be changeable. The main challenges here for risk assessments are as follows: first, different individuals may pose different levels of risk for different roles/activities at different points in time; second, the predictors, risk factors, correlates, or indicators may differ for different kinds of role involvement; third, different roles/activities hold different meanings for different individuals over time; and fourth, people involved in terrorism commonly migrate between various roles and activities over time (Borum, 2011a, 2011b). A risk assessment approach must account for each of these challenges.

Fully understanding the spectrum of terrorism involvement will ultimately require empirical investigation, but for heuristic purposes, the spectrum of activities might be grouped into four basic categories:

1. *Direct Action*, involving direct participation in terrorist attacks against human targets;
2. *Operational Support*, which may involve planning and on-site support for attacks or preparing weapons, lethal substances, and explosives for use in attacks against human targets;
3. *Organizational Support*, involving activities such as spotting, recruitment, fundraising, information dissemination, and media strategy; and
4. *Logistical Support*, comprising both enabling activities such as providing money, food, or lodging as well as less-direct or more distal forms of operational support such as acquiring or providing false documentation or identification, communications equipment, or transportation.

With regard to defining the outcome, the most useful question might not be “which one to choose” but rather “which one(s) seems most (and least) likely” based on the individual’s history, trajectory, vulnerabilities, capabilities, risk and protective factors, and the current context.

What Data Should Be Considered?

Traditional models of risk assessment suggest that “risk factors” should comprise the primary “data” for the appraisal. Monahan’s (2012) thoughtful analysis of individual risk for terrorism argues that “without the identification of valid risk factors, the individual risk assessment of terrorism is impossible.”

But what exactly is—or should be—considered an *individual risk factor* for terrorism involvement? Is it even possible to identify risk factors with sufficient potency to make meaningful distinctions between high and low risk groups? The answers to these questions may be more complex than they at first appear.

The term “risk factor” has its origins in the fields of epidemiology and public health (Rothman, Greenland, & Lash, 2008). Risk factors historically have been viewed simply as variables that are *associated with* the increased likelihood (probability) of a negative outcome (or hazard). They are derived from group-level data and are, therefore, commonly regarded as *nomothetic* (based on generalized knowledge) rather than *idiographic* (based on case-specific knowledge)¹ elements (Beck, 1953; Hermans, 1988; Lamiell, 2003; Robinson, 2011). That the factor is statistically associated with the hazard does *not* necessarily imply that the factor is a *cause* (Kraemer, Stice, Kazdin, Offord, & Kupper, 2001). Gender or age, for example, may be regarded as risk factors for criminal behavior, but generally not as causes of criminality (Steffensmeier, Allan, Harer, & Streifel, 1989; Smith & Visher, 1980; Tittle, Ward, & Grasmick, 2003).

Kraemer and colleagues (1997) propose the following definition:

A risk factor is a measurable characterization of each subject in a specified population that precedes the outcome of interest and which can be used to divide the population into 2 groups (the high-risk and the low-risk groups) that comprise the total population. (p. 338)

Further explicating their risk factor criteria, Kraemer and colleagues (1997) say that “merely demonstrating statistical significance, however, is not enough” to classify a particular agent or exposure as a risk factor. The factor must demonstrate sufficient “potency” to discriminate between those with a higher and lower probability of the adverse outcome. They define “potency” as the “maximal discrepancy achievable using that risk factor to dichotomize the population into high- and low-risk groups” (p. 338).² As a practical matter, that would mean that researchers could not simply look for characteristics or exposures within a specified population that are commonly *present* in people who have engaged in terrorism, such as subscribing to a radical ideology. But a sufficient proportion of those who possess the factor must actually engage in terrorism for the factor to have any potency. That is, the presence of the factor must be reasonably *specific* to terrorism involvement. For assessing an outcome as diverse and as rare as terrorism, those criteria pose a formidable—if not insurmountable—challenge.

With regard to using risk factors in an assessment, the traditional view assumes that risk factors derived *from group data* will apply *to a specific individual*. The validity of this assumption is an ongoing polemic in the fields of behavioral and social science (Allport, 1962; Barlow & Nock, 2009; Robinson, 2011).

¹ The distinction between knowledge based on general laws and knowledge based on particular cases dates back—at least—to Socrates. These terms entered the lexicon of *Psychology American* at the end of the 19th Century through the writings of James Tufts and Hugo Munsterberg. Gordon Allport subsequently applied these terms to distinguish different research paradigms, though Robinson (2011) suggests this application may have skewed the terms’ original intended meaning (see Hermans, 1988 and Robinson, 2011 for historical reviews).

² Kraemer et al. (1997) note “the requirement in risk estimation that potency be demonstrated essentially is a requirement that every statistically significant result be supported by empirical evidence that could be evaluated for clinical or policy significance” (p. 338). Discerning potency, they observe, typically requires large sample sizes and sufficient heterogeneity in the factor and the outcome. That is, if nearly everyone in the sample has (or has not) experienced the outcome, it will be difficult to reliably differentiate low- and high-risk groups. Similarly, if nearly everyone in the sample has (or does not have) the risk factor, then it will be difficult to demonstrate the factor’s potency.

Statistically speaking, a particular sample of people can be seen as having an “average” set of characteristics, and possibly an “average” propensity for violence (or some other behavior). But does each *individual* in that sample carry the identical “average” propensity? In a sample of 100 people, if it was known for certain that 80 of them had red hair, would it be reasonable to infer that each *individual* in the sample has an 80% probability of having red hair? Almost 50 years ago, commenting on juvenile delinquency research, psychologist Gordon Allport (1962), said:

A fatal non sequitur occurs in the reasoning that if 80% of the delinquents who come from broken homes are recidivists, then this delinquent from a broken home has an 80% chance of becoming a recidivist. The truth of the matter is that this delinquent has either 100% certainty of becoming a repeater or 100% certainty of going straight.

Do individual people have probabilities, and if so, are those probabilities based on the population from which they are drawn? Perhaps it is an epistemic question (Hermans, 1988). To assume that an individual carries the *average* probability of the group from which she or he is drawn, however, seems to have rather profound implications for persons involved with assessing potential terrorist violence.

Given the rigorous, functional criteria used to specify what is and is not a risk factor, it is unclear whether identifying “robust” individual risk factors for terrorism is even possible, much less whether group-derived factors could be usefully applied to a heterogeneous array of individual cases (Lamiell, 2003). Because terrorism involvement represents a broad spectrum of behavior, it may be that different risk factors will apply to different roles or categories of activities. Moreover, Kraemer et al. (1997) suggest that population and timing are critical variables, so the relevant factors are also likely to differ depending on which population is studied (and when) or how the population is defined. Research suggests that involvement in role-related activity is dynamic (Horgan, 2008, 2009), so identifying stable and specific risk factors, in the traditional sense, will be like trying to hit a moving target.

Beyond factors that might increase risk, consideration might also be given to “protective” factors in the assessment (de Ruiter & Nicholls, 2011). In the violence risk literature, protective

factors are distinguishable from the simple absence of a risk factor. As they relate to risk for violent and antisocial behavior, protective factors are “conceptualized as variables that reflect involvement with and commitment to conventional society, that control against nonnormative activities, and that refer to activities incompatible with normative transgression” (Jessor, van den Bos, Vanderryn, Costa, and Turbin, 1995, p. 931). These three criteria can be applied to terrorism as well. An evaluator might consider as “protective” those conditions or characteristics that reflect a person’s commitment to conventional norms against terrorism, that control against militant extremist activities, and that involve activities incompatible with terrorism and militant extremist activity.

In the context of risk assessments for terrorism, the terms “Risk Factor” and “Protective Factor” should be viewed more broadly than they are typically in clinical risk assessments among persons with mental disorders. The social scientific disciplines that study terrorism have yet to reveal an empirically derived set of risk and protective factors for engaging in extremist violence. Although rigorous research exists on risk and protective factors for some *other* forms of violence, it is not yet clear whether—and if so, when—evidence-based risk and protective factors can be established for terrorism. With terrorism-related assessments, rather than accepting or rejecting a risk factor a priori as a scientifically established “fact” as it applies to any given individual, an evaluator might consider a putative risk or protective factor as a proposition, hypothesis, or a piece of evidence (Shook & Margolis, 2006).

The evaluator might define the potential factor as clearly as possible, consider how the factor might be logically related to the outcome (i.e., terrorism involvement), and infer its connection in an individual case. Using the framework of argumentation theory (van Eemeren & Grootendorst, 2004), an association between the factor and the outcome would be regarded as a *premise*. Using risk factors as premises, the evaluator can construct an inductive argument—one in which if the premises are true, then the conclusion is likely to be true (Barker, 1957). Some of these issues will be addressed further in subsequent discussions of decision-making and how risk should be assessed.

How Should the Risk Appraisal Be Made?

Research on violence risk assessment—and on other estimative decisions—has consistently found that unsystematic and unstructured approaches tend to result in decisions that are neither very accurate nor useful (Otto & Douglas, 2010; Skeem & Monahan, 2011). Emblematic of the more contemporary risk assessment approaches are a series of tools based on the “Structured Professional Judgment” (SPJ) model (Otto & Douglas, 2010). Typically in SPJ assessments, a set of specified and defined risk (and sometimes protective) factors are presented as a foundation for the risk appraisal. Fundamentally, SPJ tools are designed to structure an assessment process to make it more systematic and reliable and ultimately to support better decision-making about risk (Douglas & Ogloff, 2003; Guy, 2009). The rise of SPJ approaches has infused violence risk assessment with a greater reliance on empirically based evidence; a closer alignment between risk assessment and risk management; assessment processes that systematically consider both nomothetic and idiographic factors; and a greater appreciation for the potential role of protective factors in a risk formulation (Carroll, 2007; Singh, 2012). None of the existing SPJ tools, however, can be usefully applied “off-the-shelf” to terrorism risk assessments. It may even be necessary to modify the SPJ approach itself to apply to terrorism-related individual assessments.

Creating an Approach to Assessing Risk for Terrorism

If it is possible to guide, structure, and support risk decision making so that the assessment process is more systematic, transparent, and reliant on current evidence, then that effort would serve the interests of both procedural fairness and substantive security (Jore & Nja, 2010). Structuring risk assessments for terrorism and related activity, however, poses a series of challenges. Four, in particular, are noted here.

The first challenge is the absence of much empirical research on the topic. More than 50 years of empirical research illuminating the correlates and trajectories of *general* criminal offending preceded the field’s shift to structured violence risk assessment (Otto & Douglas,

2010). The same robust empirical foundation does not yet exist for understanding the risk of terrorism or involvement in violent extremist activity (Borum, 2011a, 2011b), and the knowledge base on general criminal careers cannot be directly transferred to forecast the risk of violent extremism.

The second challenge is that terrorism and radical ideas are not coterminous. People can radicalize without becoming terrorists, and people can become terrorists without radicalizing. Large scale global polls from organizations like Pew and Gallup suggest that tens of millions of Muslims worldwide are sympathetic to militant “jihadi aspirations,” though only a miniscule minority ever engages in violence (Atran, 2010). Conversely, some terrorists have only a cursory knowledge of, or commitment to, the radical ideology. They are drawn to the group and to the activity for other reasons. It is important to understand the distinctions between ideology and action. Though the two are often connected, the nature and strength of that connection varies.

The third challenge is that terrorism involvement can evolve for an individual in many different ways. Current evidence suggests that many pathways into and through radicalization exist, and each pathway is itself affected by a variety of factors (Bokhari, Hegghammer, Lia, Nesser, & Tønnessen, 2006; Borum, 2011a, 2011b; Crossett & Spitaletta, 2010; Githens-Mazer & Lambert, 2010; McCauley & Moskalenko, 2008, 2010). Within this “developmental” or “pathway” approach, radicalization is viewed not as “the product of a single decision but the end result of a dialectical process that gradually pushes an individual toward a commitment to violence over time.” (McCormick, 2003). Walter Laqueur (2003) has said of terrorism that the quest for a “general theory” is misguided, because: “Many terrorisms exist, and their character has changed over time and from country to country.” This seems to be equally true for the process of terrorism involvement itself.

Religion may enable or potentiate attachment to a grievance, or grievance may leverage one’s attachment to religion. Ideological commitment may lead to group affiliation, but social or group affiliations may also lead to ideological commitments. In some cases, the strength of personal conviction and commitment to the cause may precede a person’s willingness to take sub-

versive action. For others, engaging in subversive actions strengthens their personal conviction and commitment to the cause.

The fourth challenge is that, although motivation is central to definitions of terrorism, the reality is that terrorism involvement is multiterminated; driven and sustained by *multiple* causes and typically multiple motivations, rather than a single one. Causal factors often include broad grievances that “push” an individual toward a radical ideology and narrower, more specific “pull” factors that incentivize or attract them (Horgan, 2008). If motivation is central, the bridge between terrorism research and risk assessment may lie in formulating ways to understand the function and meaning of potential causes and behaviors *for the individual*. This scheme is what Hart (Hart & Logan, 2011; Sturme & McMurrin, 2011) and others refer to as a “formulation”-based risk assessment.

Fitting the Approach to the Question

Several recent publications have thoughtfully and critically reviewed the most common risk assessment approaches (Otto & Douglas, 2010; Skeem & Monahan, 2011). None of them are a perfect fit for terrorism-related assessments. A purely mechanical, actuarial approach seems impractical, if only because the outcome events are so infrequent that quantitative estimates of probability in individual cases would be highly unstable and unreliable, at best. A purely “clinical,” open-ended, and unstructured approach seems undesirable because it would succumb to the many biases and limitations in human judgment that have plagued these assessments in the past, making them inconsistent, inaccurate, and lacking in transparency.

An approach resembling “Structured Professional Judgment” seems rather promising, though the specific risk and protective factors commonly considered in existing SPJ tools might have limited value for risk of terrorism involvement. Most of the item-based SPJ tools for general or “common” violence also contain an implicit linear assumption of cumulative risk; that more items (or higher scores) equates with higher risk. But that assumption may not hold equally true for risk of terrorism involvement.

Assessing terrorism-related risks requires an approach that blends nomothetic and idio-

graphic elements, perhaps resulting in something like an SPJ tool (but with broader categories) integrated with a “Life History” or timeline, presented in the form of an individual “pathway” or trajectory. The evaluator would construct a narrative explanation describing incentives and disincentives (i.e., push and pull factors) that affected past decisions about terrorism and related activity, and the nature of the personal meaning the examinee ascribes to his or her activities at a given point in time. Simply put, an evaluator would develop an individualized case formulation that guides the risk assessment.

To structure the formulation, information might be collected and analyzed within a few broad clusters of risk and protective factors. Each cluster might contain two to four main lines of inquiry and include both “activating” and “disinhibiting” mechanisms. More than 30 years ago, Ned Megargee (1976) suggested that to understand aggression in a particular case, one would need to consider the facilitating and inhibiting factors that were operating and how they fit into the “algebra of aggression.” The wisdom of that idea carries over into contemporary assessments as well.

By grouping risk and protective factors into “clusters,” rather than itemizing them, some of the interindividual (idiographic) variability can be assessed within, not just between the groupings. The texture or detail will emerge within the lines of inquiry. This approach has the potential to provide a more individualized and integrated picture of terrorism-related risk rather than just a tally or an accumulation of risk factors. As a starting point for discussion, I will propose eight possible clusters, using the acronym ABC BASIC: Affect/Emotion, Behaviors, Cognitive Style, Beliefs/Ideology, Attitudes, Social factors, Identities, and Capacities, understanding that these are not independent categories and factors within each cluster and the clusters themselves often recursively interact with each other. The first three correspond to the basic psychological constructs of thinking, emotion, and behavior.

Affect/Emotions

Emotions have been directly and indirectly implicated in political violence and violent extremism for decades (Frijda, 1986; Leidner,

Sheikh, & Ginges, 2012; Marsella & Moghaddam, 2004; Moghaddam, 2006). Affect—the conscious experience of emotion—can empower motivations for violence and serve as an activating or disinhibiting force for violent behavior. Functionally, humiliation, hate and the “moral emotions” of anger, disgust, and contempt, in particular, all may play a role (Baumeister & Butz, 2005; Hodson & Costello, 2007). Indeed, Smith (2015) observed that “anger, hate and humiliation are arguably the emotions most commonly attributed to those engaging in violent political extremism” (Smith, 2015, p. 255).

Humiliation focuses on unjust and undeserved harm inflicted by others. It evokes both feelings of outrage and of powerlessness. Themes of perceived injustice and humiliation often are prominent in terrorist biographies and personal histories, and sometimes a transgression of injustice inflicted on them or on the groups (or social identities) with which they identify will potentiate anger and activate a grievance (Mackie, Devos, & Smith, 2000; Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003).

experiences of humiliation, or even the perception that either yourself or those with whom you identify are being humiliated, turn the focus away from the self and towards the behaviors and practices of others. For this reason, humiliation has become a powerful tool for radicalization, provoking estrangement from society, along with a judgment surrounding the immorality of others and motivation to bring about change. (Smith, 2015, pp. 260–271)

Hate is another activating emotion that has been linked to intractable conflicts and political violence (Halperin, 2008; Staub, 2005). Yale psychology professor Robert Sternberg (2003) has proposed a conceptually useful a model of hate as comprising three components: Distancing (repulsion and disgust); Anger-fear (in response to threat); and Devaluation (diminution through contempt). Any of these can erode psychological barriers to violence. It is also not coincidental that Sternberg’s components of hate correspond directly to the “moral emotions” of anger, disgust, and contempt (Haidt, 2003). Monahan (2012) has identified moral emotions as “promising” risk factors for terrorism, as “numerous scholars recently have argued that terrorism can only be understood in terms of morality, that is, in terms of other

groups violating one’s own group’s ‘sacred values’” (pp. 190–191). Those who foment hate and moral emotions aim to change the thought processes of the preferred population (ingroup) so that its members will conceive of the targeted group(s) (outgroup) in a devalued way.

Relevant affective disinhibiting factors to assess might include a generally low capacity for emotional empathy or ability to understand another’s perspective (Cuff, Brown, Taylor, & Howat, 2014; Dambrun, Lepage, & Fayolle, 2014; Feddes, Mann, & Doosje, 2015; Jolliffe & Farrington, 2004), and low restraint or low self-control (Burnette, O’Boyle, VanEpps, Pollack, & Finkel, 2013; Forgas, Baumeister, & Tice, 2009; Jones, Miller, & Lynam, 2011), which have been empirically and theoretically linked to many forms of criminal and transgressive behaviors.

Behavior

It is often said that past behavior is the best predictor of future behavior. Habits and action scripts strengthen; reinforcement patterns become firmly established; and people become emboldened by their past successes. But history is not destiny. Not everyone who engages in violence (or other antisocial behavior) repeats that behavior throughout the course of his or her life (Elliott, Huizinga, & Morse, 1986). An appraisal of past behavior for terrorism-related assessments should consider at least three types of activity: antisocial/criminal behavior, violent behavior, and prior involvement in terrorism/violent extremism.

Not only do prior instances of criminal and violent behavior potentially increase risk of future violence—at least in the general sense—but they also provide some clues to understanding how an individual has come to engage in behavior that (typically) violates strong social norms and constraints and that carries a high potential for risky consequences. By carefully examining the antecedents, the characteristics of the event itself and its surrounding situation, and the consequences and experiences that followed, an evaluator can begin to formulate hypotheses about how the individual sees the world and makes choices (or not) in difficult circumstances (Daffern, Jones, & Shine, 2010; Jones, 2002). This approach harmonizes with what Daffern and colleagues (2010) refer to as

“Offense Paralleling Behavior.” If the examinee has a history of involvement in violent extremism, then the same kind of inquiry can be applied to those events as well. The evaluator’s objective—using the most reliable and comprehensive information available—is to construct a plausible explanation of how the examinee came to be involved, came to adopt and change roles, and was attracted to, repelled by, or conflicted about terrorism involvement and its associated activities. These idiographic hypotheses are likely to be even more useful for assessing and managing terrorism-related risk than mere knowledge of prior behavior as a risk factor.

Cognitive Style

Although the content and doctrine of extremist ideologies vary, there are commonalities in the cognitive structures that maintain them. For years, the concepts of authoritarianism, dogmatism, and apocalypticism have been discussed and examined in the psychological and sociological literature. They are distinct constructs, but share some common elements. These worldviews are characterized by a rigid cognitive style in which people become overly attached to their ideas (Lauriola, Foschi, & Marchegiani, 2015; Montuori, 2005). Strozier, Terman, Jones, and Boyd (2010; see also Galen, 2011; Rogers et al., 2007; Strozier & Boyd, 2010) describe a “fundamentalist mindset” that captures many of the consistencies, with less focus on the belief content and more on the way in which beliefs are held. They outline five primary characteristics:

1. Dualistic thinking—a tendency to form absolutist and Manichaeic ideas about the nature of right and wrong and how people and events fall into one category or the other. This has also been characterized more broadly as a disjunctive binary logic, which is used to simplify the world and mitigate the individual’s intolerance of ambiguity.
2. Paranoia—paranoia and rage in a group context. Paranoia is an extreme and unwarranted suspiciousness associated with hypersensitivity to humiliation and other threats to self-esteem. Rage, as described here, is malignant and vengeful, and typ-

ically directed at the source of humiliation.

3. Apocalyptic orientation—the narrative of personal and global history that, as noted earlier, incorporates distinct perspectives on time, death, and violence.
4. Relationship with charismatic leadership—the group centers on a leader with a powerful presence, who is often paranoid, but shows complete self-assurance and intense conviction of his or her ideas.
5. Totalized conversion experience—“in conversion to a fundamentalist mindset, a new self forms and the old is discarded as despised” (Strozier et al., 2010, p. 40). The change is not a shift or a transition in a specific set of ideas, but it is transformative and comprehensive.

A suspicious or “paranoid” cognitive style may aggravate perceptions of external threat that can affect an actor emotionally and cognitively in ways that might affect the likelihood of involvement in terrorism (Lerner & Keltner, 2000, 2001; Lerner, Gonzalez, Small, & Fischhoff, 2003; Slovic, 2002). Emotionally, perceived threat can heighten physiological arousal and fuel anger and fear that can precipitate violent cognitions and/or behavior (Lerner & Keltner, 2000, 2001; Lerner, Gonzalez, Small, & Fischhoff, 2003). Cognitively, perceived threat and danger can trigger a decision to act “defensively” and facilitate negative attributions about the source of the threat (Slovic, 2002).

Likewise, a rigid cognitive style or fundamentalist or mindset does not necessarily cause terrorism, but it can create or enable vulnerabilities and propensities to affiliate with extremist groups or to become involved in terrorism in various ways.

Beliefs/Ideology

Ideologies are often the most visible enabler of terrorist behavior. An ideology is a common and broadly agreed-upon set of rules—linked to beliefs, values, principles, and goals—to which an individual subscribes, and that help to regulate and determine behavior (Rokeach, 1979; Taylor, 1991). Ideologies supply “terrorists with an initial motive for action and provides a prism through which they view events and the

actions of other people” (Drake, 1998). Similar to a worldview, an ideology can act not only to guide behavior, but also as a lens through which information, cues, and events in one’s environment are perceived and interpreted (Mack, 2002).

An ideology’s primary function in violent extremism is to provide a set of beliefs that guide and justify a series of behavioral mandates. Bandura (1978) argues that “people do not ordinarily engage in reprehensible conduct until they have justified to themselves the morality of their actions.” Terrorists, like most others, seek to avoid internal conflict or dissonance by acting in ways that are consistent with their own beliefs and that allow them to see themselves as basically good. The beliefs embedded in the ideology also provide meaning, significance and purpose, reducing uncertainty and facilitating the individual’s adaptation and adjustment (Kruglanski et al., 2014.) Perhaps no cause has greater significance than the polemic struggle between good and evil, in its various forms. This good versus evil dynamic is a central feature in most terrorist ideologies, and is frequently used as moral justification for prescriptions of violence (Baumeister, 1997; Post, 1987; Schorkopf, 2003; White, 2001).

Beliefs about grievances often provide a foundation for militant ideologies, especially grievances involving a perceived injustice (Borum, 2014; Boylan, 2014; Chernick, 2003; Crenshaw, 1992). Grievances are common among politically motivated violent actors, but perceived injustice holds special meaning—especially in understanding terrorism (Hacker, 1976; Ross, 1993, p. 326). Tedeschi and Felson, observe “In the face of perceived injustice or conflict, actors use aggression and often violence to exert social influence, express grievances, and maintain and enhance desired identities” (p. 215). A desire for revenge or vengeance is a common expression of grievance. Martha Crenshaw (1992) suggests “one of the strongest motivations behind terrorism is vengeance, particularly the desire to avenge not oneself but others. Vengeance can be specific or diffuse, but it is an obsessive drive that is a powerful motive for violence toward others, especially people thought to be responsible for injustices” (p. 73).

Saucier, Akers, Shen-Miller, Knežević, and Stankov (2009) examined common themes

within militant extremist ideologies across seven world regions. They identified 16 themes characteristic of a militant-extremist mind-set, each of which occurred in three or more groups, all with records of actual violence involving the death of multiple persons outside the group.

1. The necessity of unconventional and extreme measures.
2. Use of tactics that function to absolve one of responsibility for the bad consequences of the violence one is advocating or carrying out.
3. Prominent mixtures of military terminology into areas of discourse where it is otherwise rarely found.
4. Perception that the ability of the group to reach its rightful position is being tragically obstructed
5. Glorifying the past, in reference to one’s group.
6. Utopianizing. There is frequently reference to concepts of a future paradise, or at least “the promise of a long and glorious future.”
7. Catastrophizing. There is a perception that great calamities either have occurred, are occurring, or will occur.
8. Anticipation of supernatural intervention: Miraculous powers attributed to one’s side, miraculous events coming to help one’s side, or commands coming from supernatural entities.
9. A felt imperative to annihilate (exterminate, crush, destroy) evil and/or purify the world entirely from evil.
10. Glorification of dying for the cause.
11. Duty and obligation to kill, or to make offensive war.
12. Machiavellianism in service of the “sacred.” This theme involves the belief that those with the right (i.e., true) beliefs and values are entitled to use immoral ends if necessary to assure the success of their cause.
13. An elevation of intolerance, vengeance, and warlikeness into virtues (or nearly so), including, in some cases, the ascribing of such militant dispositions to supernatural entities.
14. Dehumanizing or demonizing of opponents.

15. The modern world as a disaster. Among militant extremists, there is commonly a perception that modernity, including the consumer society and even instances of successful economic progress, is actually a disaster for humanity.
16. Civil government as illegitimate.

The authors suggest that militant-extremist groups use these thematic elements to craft a “narrative” frame for their ideologies, offering the following example:

We (i.e., our group, however defined) have a glorious past, but modernity has been disastrous, bringing on a great catastrophe in which we are tragically obstructed from reaching our rightful place, obstructed by an illegitimate civil government and/or by an enemy so evil that it does not even deserve to be called human. This intolerable situation calls for vengeance. Extreme measures are required; indeed, any means will be justified for realizing our sacred end. We must think in military terms to annihilate this evil and purify the world of it. It is a duty to kill the perpetrators of evil, and we cannot be blamed for carrying out this violence. Those who sacrifice themselves in our cause will attain glory, and supernatural powers should come to our aid in this struggle. In the end, we will bring our people to a new world that is a paradise. (Saucier et al., 2009, p. 265)

Many of these elements of militant ideology have been linked to increased aggression and a proclivity to dehumanize those who oppose one’s beliefs (Saucier et al., 2009; Stankov, Saucier, & Knežević, 2010). For risk assessment, understanding the ideology to which an individual subscribes can illuminate their justifications for violence and the rules and mechanisms that guide their behavior.

Attitudes

Attitudes comprise people’s internal appraisals of people, objects, events, and issues that predispose them to respond favorably or unfavorably (Ajzen, 2005). Attitudes are an important component to assess in terrorism-related risk assessments, but by themselves, tend to be rather weak predictors of actual behavior (Kraus, 1995).

There are a number of factors that affect the relationship between attitudes and behaviors. (a) Specificity is one factor that mediates the link between them. More specific attitudes tend to predict specific behaviors. (b) Individual consistency is also a factor. People who carefully

“self-monitor” tend to adapt their behavior to fit situations, and may show less consistency between attitudes and actions. Those who do not self-monitor tend to be more consistent because their attitudes serve as an auto-pilot (Ajzen & Cote, 2008; Ajzen & Fishbein, 2005). (c) Situations will also influence the expression of attitudes. Especially when others are present, observing, or are aware of how a person will behave, the “norms” of the situation can often override individual attitudes; think of peer pressure.

Finally, (d) the nature of the relationship between the attitude and behavior itself is also influential. In general, highly salient and memorable attitudes—such as those strongly associated with a positive or negative emotional response—tend to influence behavior more than those that must be recalled. Attitudes also are more strongly predictive of behavior in some circumstances than in others. Attitudes tend to prompt behavior under conditions of time pressure, for example, or when combined with social pressure, or when attention is called to the attitude itself (Ajzen & Cote, 2008; Ajzen & Fishbein, 2005).

An individual’s attitudes toward terrorism (and toward potential targets) may activate or inhibit action, but alone they are not dispositive of future behavior. Nor should they be seen as a *necessary* predicate for terrorism risk. Most people who believe that terrorism (under certain circumstances) is justified do not engage in terrorism themselves, and many who claim certain ideological justifications for the actions, actually have other motives (Borum, 2011a, 2011b). Nevertheless, attitudes are quite relevant to a risk-related inquiry.

Among the “activating” factors, the evaluator might consider in a terrorism-related risk assessment, “proviolence” attitudes are among the most significant. These are attitudes supporting the idea that violence is a legitimate way to achieve an actor’s objectives in a given situation and that the actor is likely to be successful in his attempt (Brand & Anastasio, 2006). Prior studies of general or common violence have linked proviolence attitudes to more frequent episodes of violent behavior (Felson, Liska, South, & McNulty, 1994; Heimer, 1997; Markowitz & Felson, 1998; Polaschek, Collie, & Walkey, 2004). In a terrorism risk assessment, the evaluator would want explore the specificity of

those attitudes as they relate to likely outcomes of terrorism and related behavior. Stankov, Saucier, and Knežević (2010) found that one of the three main ingredients in a militant extremist mindset is a “belief that violence is not only an option, but it may be a useful means to achieve one’s personal and social goals.”

Thrill-seeking, a specific form of sensation-seeking, can be an activating factor that draws certain individuals to risky or dangerous behaviors (McAlister & Pessemier, 1982; Pfefferbaum & Wood, 1994; Roberti, 2004). Excitement is a significant “pull” factor for some (though certainly not all) who become involved in criminal activity and violence generally, and in violent extremism, specifically (Baumeister & Campbell, 1999; Katz, 1988; Woodworth & Porter, 2002).

In addition to the “activating” factors, potentially “disinhibiting” attitudes also should be assessed. It is useful to understand the individual’s worldview and perspective as it pertains to terrorism-related behavior. Two psychological theories are especially noteworthy in that regard: Sykes and Matza’s (1957) Techniques of Neutralization and Bandura’s (1990, 2004) Moral Disengagement. There is substantial consistency between them, but each posits several common mechanisms that people use—wittingly or not—to justify behaviors that may harm others. These mechanisms serve to “disinhibit” the internal (e.g., guilt) or external (e.g., social norms) sanctions that might otherwise be barriers to action. For example, a person might invoke a moral justification or appeal to higher loyalties; she might displace or disavow her own personal sense of agency or responsibility, sometimes deferring to a duty, authority, or absence of choice; she might cast the victim as being blameworthy or deserving of the adverse action; or perhaps even devalue or dehumanize the victim (Haslam Loughnan, 2014; Kteily, Bruneau, Waytz, & Cotterill, 2015).

Social Factors

Social factors have a profound effect on an individual’s propensity for violent behavior (Tajfel & Turner, 1979; Turner & Onorato, 1999). Numerous empirical studies and social scientific theories have established a range of causal and contributory links between social norms/perceptions and violence. The theory of

planned behavior, for example, posits that a key factor in determining a person’s intention to engage in a behavior is the reactions he or she anticipates or expects from others (Ajzen, 1985). Accordingly, one important area to assess is the degree to which the individual’s kinship group (or other group of individuals who are most important to him) endorses the legitimacy of, and directly supports violence in service of a specific cause or against a specific person or class of persons (Thomas, McGarty, & Louis, 2014). Beyond that is the issue of discerning whether, and to what extent, others important to him endorse or encourage *the individual himself* to engage in violence (Roberts, 2015). A corollary to social support for violence is social support for emotions of hate or revenge toward a target group, which can activate violence and aggression.

Social factors can also operate to disinhibit violent ideas and action (LaCroix & Pratto, 2015). One characteristic that has long been considered a common trait among terrorists—although sometimes manifest in different ways—is social alienation. Alienation is a social phenomenon, and has been studied extensively both in psychology and in sociology. At its most essential, it suggests a disconnection or estrangement from nearly all others, or from society itself. Seeman (1983) and subsequently Geyer (1996) suggested that the construct of alienation was composed primarily of five factors, *powerlessness* (nothing they do affects what happens to them), *meaninglessness* (what happens to them is purposeless), *normlessness* (apathy toward the dominant norms of society), *social isolation* (feeling “apart” from others), and *self-estrangement* (lacking a sense of self or of one’s own desires).

A related, but arguably distinct, social factor is social rejection. Rejection may precede, or follow from, alienation, but they are not wholly identical. Rejection involves exclusion, devaluation, and sometimes humiliation, often directed to someone whom others dislike. Some who are alienated have not been rejected, and some who are rejected are not alienated, but either or both can increase one’s vulnerability to fringe and extremist influence and may be disinhibiting factors for violent or aggressive action (Meloy & Yakeley, 2014).

Another salient social factor to consider in assessing risk for involvement in terrorism and

related activities is a dualistic social worldview: an “us vs. them” mentality. As noted in the discussion of beliefs/ideology, this dualism—especially when framed as a struggle between good and evil—can increase risk for violence, especially for ideologically motivated/justified violence (Saucier, Akers, Shen-Miller, Knežević, & Stankov, 2009; Stankov, Saucier, & Knežević, 2010). Anyone who is a nonbeliever or is outside the “us” circle is considered evil is presumed to pose a threat. A dualist’s approach to the interpersonal world is predicated on the idea that the “us” is at risk from the “them.” Because the “us” is seen as being good or right in the absolute sense, this works not only to dehumanize potential target groups, but also to potentiate the morally justifiable need for their eradication.

Identities

Identity comprises the core beliefs—tacit and explicit—by which a person defines him or herself; often including a mix of individualistic attributes and group-referenced identifications (Andersen & Chen, 2002; Greenwald & Pratkanis, 1984; Triandis, 1989; Reid & Deaux, 1996; Simon, 2004). Identity—or identities—are a part of what gives stability and consistency to a person’s behavior over time (Roberts & Caspi, 2003), and are therefore an important feature to assess in terrorism-related risk assessments (Roberts, 2015). Caspi, Roberts, and Shiner (2005) phrase it this way:

Identity development facilitates personality consistency by providing clear reference points for making life decisions. Strong identities serve as a filter for life experiences and lead individuals to interpret new events in ways that are consistent with their identities. (p. 469)

One relevant facet is the extent to which an individual’s sense of grievance is central to his or her identity. An aggrieved identity would suggest a deeper and more pervasive attachment to (and perhaps preoccupation with) the idea that he or she has been wronged or is part of a collective that has been wronged. Simon and Klandermans (2001) have advanced the notion of a “politicized collective identity,” which is framed around three components: (a) identifying with a group that is engaged in a broader societal power struggle; (b) awareness of shared grievances and adversarial attributions; and (c)

being convinced that the adversarial power struggle must play out on a broader societal stage. The politicized collective identity is certainly one way in which an aggrieved identity might be manifest.

Another way to examine potential identity roles in activating or disinhibiting risk for terrorism involvement is to view them through the lens of “self-concept” (Gecas, 1982; Stein & Markus, 1994) and the extent to which facets of their self-concept are rooted in, or antithetical to, principles that would support involvement in terrorism (Sebastian, Burnett, & Blakemore, 2008; Markus & Wurf, 1987; Marsh, 1990; Marsh & Hattie, 1996). A person’s self-concept develops based on direct, internal appraisals of how the person believes he or she is viewed by others (Sebastian, Burnett, & Blakemore, 2008). Although there is scholarly debate about how best to define or bound the term, there seems to be some consensus, at least, that self-concept is multidimensional (Markus & Wurf, 1987; Marsh, 1990; Marsh & Hattie, 1996). Three core dimensions of self-concept most relevant to this study are moral-ethical, social-relational, and worth-competence-status.

The first is the moral-ethical component of self-concept; what contemporary scholars often refer to as *moral self* or *moral identity* (Hart, 2005; Lapsley & Narvaez, 2004). The basic idea is that a person’s moral principles, goals, and commitments drive (and are driven by) their motivations and emotional systems (Blasi, 1983, 1993, 2005). This associative network is what fosters an individual’s moral agency. When the moral component is strong and central to a person’s identity, then he or she is more likely to behave, across varying situations, in a way that is consistent with those moral concerns. Damon and Hart (1992), for example, suggest “there are both theoretical and empirical reasons to believe that the centrality of morality to self may be the single most powerful determinant of concordance between moral judgment and conduct. . . . People whose self-concept is organized around their moral beliefs are highly likely to translate those beliefs into action consistently throughout their lives” (p. 455). Moral concerns can derive from conventional social mores and standards, however they may also be rooted in the subcultural norms of a religion or

ideology. When leaders of violent extremist groups declare, for example, that killing or harming others is a “duty,” they are attempting to frame the action as a moral concern. A strong moral identity, in that sense, may activate rather than inhibit violence.

The second component of self-concept is the social-relational dimension. Of course self-concept is influenced by our significant interpersonal relationships. Nineteenth century psychologist William James (1890) suggested that a person has “as many different social selves as there are distinct groups of persons about whose opinion he cares.” The notion of self in relation to others is often termed the *relational self*, a construct linked to emotions, goals and motives, self-regulation, and interpersonal behavior (Chen, Boucher, & Tapias, 2006; Tice & Baumeister, 2001). Relational identities, often operating automatically and outside of conscious awareness, serve as azimuth for creating meaning in events, provide a sense of personal coherence across contexts, and support a person’s sense of psychological well being. Relational selves have been shown to affect emotions, goals and motives, self-regulation, and interpersonal behavior (Chen, Boucher, & Tapias, 2006; Tice & Baumeister, 2001). If a person perceives a collective or class of others positively, that collective’s attitudes, sentiments, and support is likely to have a heavy influence on the individual’s behavior (Carmichael, Tsai, Smith, Caprariello, & Reis, 2007). If a person perceives a collective or class of others negatively, he or she may be more likely to view them as hostile or threatening, prompting and aggressive response (Dodge, 2003; Dodge, Bates, & Pettit, 1990).

The third self-concept component relates to the individual’s sense of Worth-Competence-Status (Marsh, 1986). At a basic level, perceptions of self-worth or esteem are important because in those from whom this is weakly developed, behavior tends to be less consistent across situations. External cues and influences, for them, tend to exert a greater effect (Brockner, Wiesenfeld, & Raskas, 1993; Campbell & Lavalley, 1993). Moreover, self-construals of competence and efficacy influence motivations and intentionality for engaging specific behaviors (Bandura, 1977; Elliot & Dweck, 2005; Gecas, 1989). Competence is about doing something effectively or successfully. Compe-

tence is, therefore, rewarding and central to the ubiquitous human desire to be successful. Competent responses typically lead to more positive outcomes and emotions such as pride, whereas incompetent responses lead to negative outcomes and emotions such as shame. Individuals are drawn to circumstances and behaviors in which they can demonstrate competence and are inclined to avoid those where incompetence is likely (Elliot & Dweck, 2005). Understanding an individual’s self-concept of Worth-Competence-Status illuminates the kind behaviors and situations he or she might be more likely to seek and to avoid.

Capacity

A final category to consider in assessing risk for terrorism involvement is the individual’s capacities, including the capabilities and means to assume various roles and execute various behaviors. This would include physical, intellectual, and social capabilities, access to means and materials, and specialized knowledge and skills. It might even be possible to consider an individual’s capacities as analogous to a job analysis, considering functions and requirements of the four role categories: Direct Action, Operational Support, Organizational Support, and Logistical Support.

A key element of course, is discerning what training, preparation and expertise the person might have that could be applied to terrorism support. The more time and effort that one has invested in training for a task, the more likely he is to value its importance and to be committed to it (Arkes & Blumer, 1985). This would apply not only to general “training camp” experiences for militants, but also to specialized skills such as bomb-making or knowledge of biological, chemical, or radioactive materials and devices. This might also extend to organizational and leadership skills, such as planning, strategy, and the ability to influence others. By understanding capacities, especially in the context of past behavior, the evaluator can discern not only what the individual is *capable* of doing but also what he might be most *likely* to do.

Risk Formulation

The purpose of gathering information in the ABC BASIC (Affect/Emotion, Behavior, Cog-

nitive Style, Beliefs/Ideology, Attitudes, Social factors, Identities, and Capacities) clusters is not simply to create a tally of risk factors, but rather to give the evaluator a sufficient fund of relevant information to develop a useful formulation regarding the nature and likelihood of an individual's risk for terrorism involvement. The case formulation serves "as a tool that can help organize complex and contradictory information about a person" (Eells, Kendjelic, & Lucas, 1998, p. 146). The formulation, not the aggregated data points, should form the core of the risk appraisal. As Hart and Logan succinctly describe it:

According to the decision theory framework, the task of risk assessment is to understand how and why people made decisions to engage in violence, and to understand the various factors that impinged on or influenced their decision making. Risk factors are things that influence decision-making. They can play several causal roles. They can motivate, disinhibit, or destabilize decisions. Motivators increase the perceived rewards or benefits of violence. Disinhibitors decrease the perceived costs or negative consequences of violence. Destabilizers generally disturb people's ability to monitor and control their decision making.

Taking guidance from the literature on medical and psychological case formulation (e.g., Daffern, Jones, & Shine, 2010; Eells, 2006, 2010; Kuyken, Padesky, & Dudley, 2008; Persons, 2006, 2008; Sturmey, 2009), a risk conceptualization for terrorism involvement might proceed through the following steps: behavioral history analysis, motivational analysis, vulnerability analysis, and formulation analysis.

Behavioral History Analysis

A first step to understanding an individual's trajectory of activity is to examine past patterns of related behavior. A key objective is to identify the critical events or behaviors in the individual's history that suggest movement toward involvement in terrorism. To organize the historical analysis, it may be useful to construct a timeline with process/phase markers or inflection points (e.g., seeking writings or media that promote violence, attending a meeting with others known to advocate for terrorism, swearing an oath or otherwise affirming intent to engage in terrorist activity, agreeing to engage in a direct action or task involving operational or organizational support), noting each as a significant time segment. The timeline or pathway

map might represent a kind of idiographic model or narrative for the individual's entry and role migration in violent extremism.

Motivational Analysis

In this step, the evaluator identifies the approach and avoidance motivations, emotions, attitudes, beliefs, and situational factors that appear to have been significant in driving the individual's decisions or behavior at each of those key points, as well as those that might have buffered or mitigated risk. Human motivation is complicated and there will rarely be a singular or simple answer to "why" the behavior occurred. The approach-avoidance dynamic is a common psychological basis for conceptualizing human motivation (Elliot, 2006). Basically, this model suggests that whenever people contemplate an act or objective, they struggle internally with competing forces between those that push or draw them toward it (called approach motives) and those that inhibit or pull them away from it (called avoidance motives) (Dollard & Miller, 1950; Lewin, 1958; Miller, 1959). Horgan has insightfully argued that the push-pull framework is useful for understanding a person's involvement in terrorism as well. Push factors are often grievance-related and pull factors are often perceived incentives, which may be either material or expressive. As Martha Crenshaw (1985) observed more than 25 years ago, "the popular image of the terrorist as an individual motivated exclusively by deep and intransigent political commitment obscures a more complex reality" (p. 19).

At least six motivational clusters are found often enough among persons who become involved in terrorism that each should be considered in a risk assessment (Borum, 2004, 2010; Crenshaw, 1985; Horgan, 2005; Venhaus, 2010; Victoroff, 2005):

- *Status-related* in which the individual receives praise or recognition from involvement that bolsters self-esteem or elevates his status in the eyes of others;
- *Identity-related*, which sometimes occurs because individuals have no clear self-concept and will identify with an ideology (usually without critical examination) as a proxy for having a personal identity or will identify with a collective of people (or

movement) as a proxy for having a social identity;

- *Thrill-related*, which involves positive anticipation of the perceived excitement, danger, or adventure of being involved in terrorism. These incentives can exist with or without a more generalized impulsivity; and
- *Revenge-related* motivations, which may be rooted in a personal loss (e.g., death of a family member) or loss of status (e.g., humiliation) or in some humiliation/injustice imposed upon a group or class of persons with whom the individual strongly identifies.
- *Material-related*, which includes financial remuneration, housing, family subsistence, and other tangible benefits that accrue from affiliating with the violent extremist group or engaging in terrorism-related activities.
- *Affiliation-related*, which includes a general need for belonging as well as more specific attachments to an identified group or collective. This corresponds to the radicalization pathway that McCauley and Moskaleiko (2008) refer to as “The Power of Love.”

These six named categories do not cover all possible motivations, nor are the categories exclusive of one another. Multiple motivations may exist simultaneously and the relative strength of each may shift over time. It will be more important to examine patterns rather than to fit the motivations into a category. It is also useful to assess the degree of congruence between the individual’s expectations and the outcomes he actually experienced. Often the idea of becoming involved in terrorism is quite different from its actualized reality. That discrepancy may be a key source of leverage for risk reduction interventions.

Vulnerability Analysis

In this step, the evaluator identifies key vulnerabilities—internal or situational—that may have increased the salience of those factors for that individual, at that point in time. While motives may be thought of as emotions, desires, physiological needs that incite action, vulnerability might be thought of as a susceptibility or liability to succumb to persuasion or temptation.³ In the context of terrorism involvement,

Horgan (2005) defines vulnerabilities as factors that lead to “some people having a greater openness to increased engagement than others.” Perhaps a recent event has piqued a sense of injustice, or a loss has created a desperate need for interpersonal belonging, or a crisis has occurred that disrupts the individual’s sense of self; any of these vulnerabilities might magnify the influential effects of certain push and pull factors.

Formulation Analysis

In this step, the pieces are assembled to explore plausible explanations for the individual’s behavior during that segment. This explanatory process moves away from the untenable assumption that risk factors, even causal factors, have only a linear relationship with the risk outcome (Shahar & Porcerelli, 2006). It starts with description and becomes more inferential as it progresses. The formulation details the relevant behaviors/decisions, the factors that affected them, the mechanisms by which those factors exerted their influence and any identifiable situational precipitants (Persons, 2008).

Persons (2008) describes the mechanism hypothesis as the “heart of the formulation.” Here the evaluator develops hypotheses about how specific internal and situational factors caused or influenced an individual’s decisions or behavior, including interactions with vulnerabilities, and how the array of influencing factors might have affected each other (McCauley & Moskaleiko, 2008, 2010). The evaluator considers how various factors and conditions might have operated in that time segment and explores plausible explanations for the decisions or behaviors, including the underlying core beliefs and assumptions. This would include both active processes (in which the individual initiated action) and passive processes (in which the individual was acted upon).

Grounded Theory (Glaser & Strauss, 1967)—a systematic research method—calls these kinds of explanations, *hypotheses* or *propositions* (Whetten, 1989). The merit of the causal propositions can be judged—as is done in Grounded Theory—by evaluating their degree of fit, relevance, and workability, in explaining the phenom-

³ The *American Heritage Dictionary of the English Language*, fourth edition, Copyright © 2000 by Houghton Mifflin Company.

enon (Corbin & Strauss, 1990; Glaser & Strauss, 1967; Glaser, 1998; Strauss & Corbin, 1990). The degree of *fit* is measured by how closely the “data” or known information about the individual’s vulnerabilities, risk, and protective factors correspond to the reality of the behavior they are attempting to explain. *Relevance* is based on how well the explanations “grab” the attention of persons involved, and whether the narratives make sense and resonate with them. A *workable* explanation is one that is meaningful, useful, and lucid (sensible). These features of a formulation clearly require a degree of professional judgment.

Thornton (2015) proposed a “Propensities Model” for sexual offending, based on three central ideas, that could be easily translated for terrorism-related risk assessment. The key principles are that “dynamic risk factors are best understood as enduring propensities; events and settings affect the likelihood that a propensity will be activated; and, the short-term likelihood of offending will depend on the extent to which relevant propensities are currently active and the environment affords the opportunity for them to influence offending behavior.” He further suggests that the “theoretically shallow representation of the causal role of propensities can be addressed by incorporating a more explicit representation of human agency [by considering] . . . sources of motivation (what do people want) and the goal-directed decision-making (how do people guide their behavior to seek what they want).”

Risk Analysis

The four-step formulation process provides a scaffold for the risk analysis. What comes next in the risk assessment process is applying that formulation to forecast likely outcomes of concern, and developing a plan to reduce, manage, or mitigate risk for those adverse events. At the most general level, the evaluator may reach a conclusion or opinion about risk based either on a single outcome scenario or by comparing multiple options. Either or both might be used in a terrorism-related risk assessment.

Single Outcome Evaluation

Prior research has shown that in naturalistic settings, decision makers with experience and expertise in the decision matter often recall or generate a single opinion or conclusion, then

modify it as needed. Rejecting other options is not a conscious part of the decision process, nor do they engage in any systematic point-by-point comparison among several options. The option they first generated becomes their decision, and they stick with it. (Beach & Lipshitz, 1993; Donaldson & Lorsch, 1983; Klein, 1989). This single option process is the focus of Naturalistic Decision Making (NDM), which looks at how people make decisions—often critical ones—in ambiguous, dynamic, and uncertain situations (Klein, 1998, 2008).

NDM is based on the idea that that experts typically select a course of action quickly based on how it fits with the situation. If the facts of the case and the situation are familiar, the expert almost intuitively recognizes the pattern, and that pattern cues a particular course of action. In NDM, this is known as “recognition-primed decision making” (Klein, 1989). In less familiar circumstances, where the decision maker cannot readily discern a prior pattern, he or she will attempt to size-up the facts and develop a working hypothesis or narrative about what is happening and why. The hypothesis is modified based on subsequent information. That process is called “explanation-based reasoning” (EBR) (Lipshitz, Klein, Orasanu, & Salas, 2001).

Multiple Outcome Evaluation

Hart and Logan (2011) suggest that in violence risk assessments using the Structured Professional Judgment model, *scenario planning* may be a useful tool for linking formulations to possible outcomes. A scenario is a hypothetical narrative about what might happen in the future. Scenario planning uses these hypothetical, alternative futures for purposes of strategic planning (Chermack, Lynham, & Ruona, 2001; Ringland, 2006).

There are many approaches to constructing and analyzing scenarios, and a nearly endless array of possibilities (Bishop, Hines, & Collins, 2007; Börjeson, Höjer, Dreborg, Ekvall, & Finnveden, 2006). After brainstorming a wide range of scenarios, the evaluator can begin to focus on a few that seem the most plausible given what is known about the individual and his situation. For violence risk scenarios Hart and Logan (2011) propose four basic types an evaluator might consider. These can be easily adapted to terrorism involvement. The first is a

“flat trajectory” scenario in which the individual is forecast to repeat what he has done in the past, perhaps even in a similar way and for similar reasons. The second is a “better case” scenario in which the individual no longer engages in (and perhaps avoids) the adverse behaviors that have plagued him in the past, or at least lessens the severity of those behaviors. The third is a “worse case” scenario where the individual becomes more involved or engages in even more serious or more direct action behaviors than he has before. The fourth is the “sideways trajectory” scenario in which the person continues past involvement but in a different way than before; not necessarily an escalation or worsening, but perhaps a change in the role, methods, or nature of the activity. Then, Hart and Logan (2011) propose “for each scenario, the evaluator develops a detailed description in terms of the nature, severity, imminence, frequency or duration, and likelihood of violence”—or in this case terrorism involvement—and creates a plan for managing or reducing risk.

Conclusion

Managing risk is the cornerstone of global efforts to counter terrorism. Security services want to identify and redirect persons who may be on a pathway to terrorism, and, among detainees, they wish to anticipate recidivism or adverse outcomes. The challenge of assessing and mitigating risk in this context is not one of classification or pure prediction; it is an endeavor of prevention.

The thorny question of an individual’s risk for being involved (or reinvolved) in terrorism cannot be answered with any existing statistical formula or with a simple tally of possible risk factors. What we know of terrorism involvement suggests that it has many possible pathways. We know that “radicalization” or even adherence to a violent extremist ideology is neither necessary nor sufficient to explain terrorism. Involvement is an individualized process initiated and sustained by an array of causes, which may include grievances that “push” individuals toward terrorism and “pull” factors that incentivize or attract them. Assessing risk and preventing involvement will require that an evaluator understand the function and meaning of potential causes, behaviors, and

roles *for the individual*. Historically, this has been psychology’s strength (Taylor & Horgan, 2006). Barlow and Nock (2009) observe that “whether it’s a laboratory rat, or a patient in the clinic with a psychological disorder, it is the individual organism that is the principle unit of analysis in the science of psychology” (p. 19).

Though risk may be individualistic, risk assessments should be guided by a systematic method that is empirically grounded, prevention/management-oriented, and flexible enough to accommodate differing, nonlinear, dynamic trajectories of action. Bearing these principles in mind, this article has described the conceptual contours of what a risk assessment model for terrorist involvement might look like. Eight core domains were posed as a framework for data gathering: Affect/Emotions, Behaviors, Cognitive Style, Beliefs/Ideology, Attitudes, Social factors, Identities, and Capacities, with each domain containing more specific lines of inquiry to include both “activating” and “disinhibiting” mechanisms. With the data collected and facts established, the evaluator can begin assembling the pieces into coherent, plausible explanations or propositions to use in assessing the nature and degree of risk for various kinds of adverse outcomes. This does not provide a definitive answer to the complex challenges of assessing an individual’s risk for terrorism, but perhaps it takes the field one step further than simply acknowledging that those challenges exist.

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