

**University of South Florida**

---

**From the Selected Works of Randy Borum**

---

2014

# Psychological Vulnerabilities and Propensities for Involvement in Violent Extremism

Randy Borum, *University of South Florida*



Available at: [https://works.bepress.com/randy\\_borum/61/](https://works.bepress.com/randy_borum/61/)

## Psychological Vulnerabilities and Propensities for Involvement in Violent Extremism

Randy Borum, Psy.D.\*

---

**Research on the psychology of terrorism has argued against the idea that most terrorist behavior is caused by mental illness or by a terrorist personality. This article suggests an alternative line of inquiry – an individual psychology of terrorism that explores how otherwise normal mental states and processes, built on characteristic attitudes, dispositions, inclinations, and intentions, might affect a person’s propensity for involvement with violent extremist groups and actions. It uses the concepts of “mindset” – a relatively enduring set of attitudes, dispositions, and inclinations – and worldview as the basis of a psychological “climate,” within which various vulnerabilities and propensities shape ideas and behaviors in ways that can increase the person’s risk or likelihood of involvement in violent extremism. Copyright © 2014 John Wiley & Sons, Ltd.**

For decades, psychologists and psychiatrists have sought to better understand the psychological underpinnings of terrorism at the individual level. Early efforts, looking for answers based on psychopathology or mental illness, however, showed with near unanimity that mental illness and abnormality are typically not major causes of terrorist behavior (Borum, 2004; Crenshaw, 1992; Horgan, 2008; Humaidi, 2012; Ruby, 2002; Silke, 1998; Victoroff, 2005). Subsequent attempts to find a specific “terrorist personality” or even a consistent, useful profile of psychological characteristics have been similarly unsuccessful (Horgan, 2003). This is probably not, however, because there are no differences between terrorists and non-terrorists in their patterns of thought, emotion and behavior, but because there are such vast differences among terrorists. Terrorism and terrorists are quite diverse (Alexander & Klein, 2005).

Perhaps a better line of inquiry might be to examine, from a psychological and social perspective, how people become involved, stay involved, change or desist in their involvement with terrorism and violent extremism (Borum, 2011c). Stepping back from the pursuit of answers in psychological or psychiatric abnormality, perhaps it is possible to explore how otherwise normal mental states and processes – built on characteristic attitudes, dispositions, inclinations, and intentions – might affect a person’s propensity for involvement with violent extremist groups and actions.

Although a traditional medical model of mental illness and disorder often assumes a categorical distinction between what is normal and what is disordered, current research on psychopathology seems to be converging around the idea that adaptive and maladaptive psychological processes exist on a continuum. The pathways of normal and abnormal psychological development are related. Sometimes the pathways diverge toward either the adaptive or maladaptive. And the determination of whether a pattern

---

\*Correspondence to: Randy Psy. D., School of Information, University of South Florida, 4202 E. Fowler Ave, CIS 1040, Tampa, FL 33620-7800, U.S.A. E-mail: borum@usf.edu

is adaptive or maladaptive almost always depends on an individual's context. For example, having a restricted emotional style might be adaptive in contexts where a person has to be tough, but maladaptive where that person is in a loving, intimate relationship.

Psychological traits, processes, styles, and characteristic patterns can be seen along a continuum of intensity and flexibility, but often by adulthood, there is a set of relatively enduring attitudes, dispositions, and inclinations; what might be regarded as a "mindset." A person's mindset will sway how she or he interprets and responds to situations.<sup>1</sup> Mindsets, like personalities, can presumably have adaptive-maladaptive and normal-abnormal psychological characteristics. It might be useful to better understand how these psychological processes can affect an individual's involvement in – and trajectory through – terrorism. This article suggests that an individual's mindset and worldview establish a psychological "climate," within which various vulnerabilities and propensities shape ideas and behaviors in ways that can increase the person's risk or likelihood of involvement in violent extremism (Figure 1).

## WORLDVIEW AS PSYCHOLOGICAL CLIMATE

Worldviews encompass the ways in which we make sense and meaning of the world and our experience in it. According to Sire (2004), they incorporate our most basic assumptions and presuppositions about how the world works and they guide our expectations and responses in social interactions (Duckitt & Fisher, 2003). Worldviews can be both drivers and products of psychological propensities that may increase receptivity to extremist ideology and perhaps to justifications for terrorist violence.

### Authoritarianism

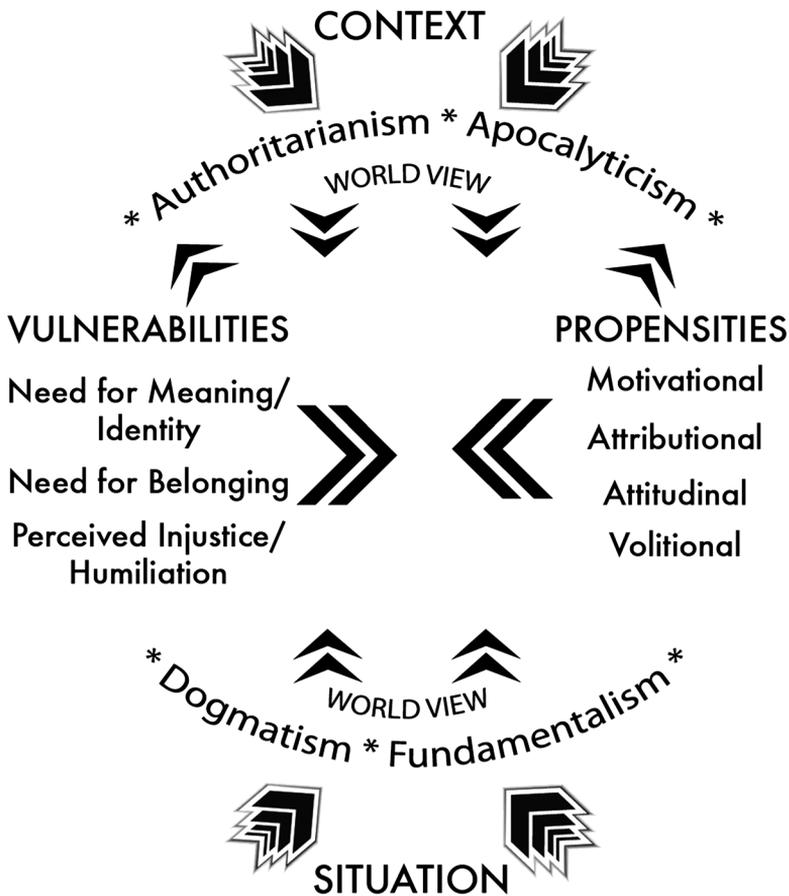
In 1950, a book titled *The Authoritarian Personality* appeared in the sociological-psychological literature. The authors proposed the existence of a personality syndrome, which arose from childhood conflicts involving overly critical and punitive parents, characterized by nine personality traits (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950):

1. Rigid, unthinking adherence to conventional, middle-class ideas of right and wrong;
2. Respect for and submission to authority;
3. Displaced anger;
4. Inability to trust others;
5. Need for powerful leaders and groups;
6. Over-simplified thinking;
7. Guarding against dangerous ideas;
8. Belief that one is pure and good and everyone else is "evil";
9. Ethnocentrism.

From this cluster of traits, Adorno *et al.* developed a measure of authoritarianism called the F (for fascism) Scale. However, the nine-part structure did not hold up under empirical scrutiny (Meloan, 1993).

---

<sup>1</sup> mindset. (n.d.), "a fixed mental attitude or disposition that predetermines a person's responses to and interpretations of situations" – *The American Heritage Dictionary of the English Language*, fourth edition. Retrieved March 21, 2013, from Dictionary.com website: <http://dictionary.reference.com/browse/mindset>



**World View, Psychological Vulnerabilities and Propensities  
For Involvement in Violent Extremism**

Figure 1. World view, psychological vulnerabilities and propensities for involvement in violent extremism.

Amidst professional and scientific criticism of the authoritarianism concept, research on it largely subsided until revived, in part, by the work of Altemeyer (1981, 1996; see also Cohrs, 2013). Altemeyer reconceptualized the construct as a stable, learned, social attitude with three facets: submission to authority, staunch conventionalism, and anger and aggression toward out-groups (Hetherington & Suhay, 2011, p. 547). Altemeyer suggested that persons with authoritarian personalities have cognitive styles that are rigid, dualistic, and intolerant of ambiguity (Altemeyer, 1996).

Authoritarianism has been linked to a range of traits and attitudes that are consistent with militant, extremist, and even hate-oriented ideologies, including ethnocentrism, prejudice, nationalism, anti-immigrant attitudes, opposition to civil and human rights, and, finally, opposition to democratic values, civil rights and liberties, and human rights (Seipel, Rippl, Kindervater, & Lederer, 2012).

Hetherington and Suhay (2011) offer a concise statement that summarizes how authoritarianism might create propensities for terrorism involvement:

In their leaders, authoritarians seek protection from danger as well as direction when faced with uncertainty. In conventional norms, authoritarians are given proscriptions for how to behave and – assuming others follow those norms as well – the guarantee that others will behave in orderly and predictable ways. Finally, authoritarians' aggression toward those who pose threats, whether threats to safety or to cultural norms, represents one very concrete approach to handling a perceived threat – by forcefully trying to eliminate it (p. 548).

## Dogmatism

Dogmatism is another concept, related to authoritarianism, which can pervade a person's worldview in ways that create propensities to adopt extremist ideologies or engage with other extremists.

Rokeach (1954) pioneered the modern idea of dogmatism, which he defines as having: “(a) a relatively closed cognitive system of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which, in turn, (c) provides a framework for patterns of intolerance and qualified tolerance toward others.”

Like authoritarians, people high in dogmatism are unreasonably attached to their own ideas, unable to process disconfirming information, and generally hostile toward those with views and principles that differ from their own (Jost, Glaser, Kruglanski, & Sulloway, 2003). Dogmatism can manifest at either extreme of an ideological continuum, though it has been studied primarily in conservative and right-wing ideologies (de Regt, Mortelmans, & Smits, 2011a; Jost *et al.*, 2003). The construct has been linked to increased aggression, a “dualistic” (good vs. evil) worldview, authoritarianism, and a proclivity to dehumanize those who oppose one's beliefs (de Regt, Smits, & Mortelmans, 2011b). Many of these features also characterize most militant, violent extremist ideologies (Saucier, Akers, Shen-Miller, Knezevic, & Stankov, 2009; Stankov, Saucier, & Knežević, 2010). Dogmatism can also shape propensities by affecting a person's appraisals of injustice, which comprise a powerful set of motivational and attributional vulnerabilities.

## Apocalypticism

A third relevant worldview feature has been called “apocalypticism.” Apocalypticism has been discussed primarily in the literatures on the cultural, historical, psychological and sociological aspects of religion, and, to a lesser extent, politics (Berlet, 2004), but not as a clinical psychological construct. According to Berlet (2004), “In its more generic usage, the word ‘apocalypse’ has come to mean the belief in an approaching confrontation, cataclysmic event, or transformation of epochal proportion, about which a select few have forewarning so they can make appropriate preparations” (p. 477).

Strozier and Boyd (2010a) have conducted one of the most comprehensive analyses on the psychology of apocalypticism. They have outlined several facets of apocalyptic thinking, though they readily acknowledge the categories are overlapping and “somewhat arbitrary”:

- *Time*. Although many extremist ideologies have a dualistic nature, casting the world as a stark, dichotomous contrast between good and evil, apocalyptic thinking is distinctive because it “locates the problem of evil in time and looks forward to its imminent resolution” (O’Leary, 1994, p. 6). Apocalyptic thinkers believe that history – past and future – is determined and that they have a blueprint (from writings or teachings) about how it will unfold. Some extremist groups have been known to engage in acts of mass violence or suicide, hoping their action will precipitate the end of time.
- *Death and violence*. Apocalyptic thinking changes people’s frame of reference about death from it being an individual event to a collective event. “The apocalyptic narrative provides purpose, direction and imagery for one’s conceptualization of death, and ultimately stresses the transcendence of death” (Strozier & Boyd, 2010a, p. 278). Apocalyptic thinkers often regard punishment as a mechanism for maintaining order. As they see their “group” as wholly righteous, they might engage in acts of violence to precipitate a justice-inducing effect.
- *Manifestations of the apocalyptic*. Apocalyptic ideas typically emerge, exist and develop in the context of a social group or movement. Ostow (1996) describes “three types of apocalyptic discourses created to address specific social group formations: those created to provide hope for the oppressed; those created by authority figures to maintain proper order by threatening the populace with ideas of destruction; and those created to encourage people to take up arms against the enemy” (Strozier & Boyd, 2010a, p. 281). Violent extremist leaders can mobilize any three of these narratives (or some combination) to create conditions facilitating violence:
- *Psychological context*. A range of psychological factors can affect apocalyptic thinking. Based on clinical experience, Ostow (1986, 1995) posits three variants of what he calls “clinical apocalyptic complex.” Ostow’s conceptualization is founded in psychoanalytic theory. The first complex is driven by depression, and people’s desire to end their negative emotions. They may try to overcome their depression by externalizing their bad feelings as anger and hostility to others, or by ending their own lives, hoping that it will lead to better outcomes. The second type occurs with psychosis, particularly in schizophrenia and mania when a person’s mood is elevated and they perceive (usually in a paranoid way) that other people or forces are acting to undermine their positive state. The third type is driven by conflict between depression and countering depression, which, Ostow says, might prompt fury and psychotic dissociation, causing a “hitherto quiet and unobtrusive individual [to suddenly go] berserk and attack others, often strangers” (p.74).

Strozier and Boyd (2010a) conclude from an analysis of the psychology of apocalypticism that “the apocalyptic is an inherent part of a larger psychological construct, the fundamentalist mindset.... To consider the apocalyptic outside of this larger context is to maintain a conceptual fiction” (p. 283).

### Fundamentalist Mindset

Strozier, Terman, Jones, and Boyd (2010; see also Galen, 2011; Rogers *et al.*, 2007; Strozier & Boyd, 2010b) describe a “fundamentalist mindset” with less focus on the belief content and more on the way in which beliefs are held. They outline five primary characteristics:

- *Dualistic thinking* – a tendency to form absolutist and Manichaeian ideas about the nature of right and wrong and how people and events fall into one category or the other.
- *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 typically directed at the source of humiliation.
- *Apocalyptic orientation* – the narrative of personal and global history that, as noted earlier, incorporates distinct perspectives on time, death, and violence.
- *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.
- *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.

In relation to contemporary models of personality pathology, these four worldview factors – authoritarianism, dogmatism, apocalypticism, and the fundamentalist mindset – align well with the dimensions of negative emotionality (e.g., submission and dependence on authority; suspiciousness of others), compulsivity (e.g., rigidity, orderliness), and antagonism (e.g., hostility, aggression, oppositionality) (Shedler & Westen, 2004; Skodol *et al.*, 2012). In other words, worldview can both reflect and potentiate individuals’ mindsets and their characteristic traits and behaviors. A particular worldview 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.

## PSYCHOLOGICAL VULNERABILITIES

Vulnerability is the state of openness to attack, harm or damage. For understanding pathways of violent extremism, vulnerabilities may be viewed as “factors that point to some people having a greater openness to increased engagement than others” (Horgan, 2008). Those vulnerability factors create and interact with psychological propensities that can affect a person’s motivation, attributional style, volition, and attitudes in ways that make that person more vulnerable than others to engaging with terrorist groups, causes, and activities (Bokhari *et al.*, 2006).

Psychological vulnerabilities, for example, might shape people’s attitudes toward a particular class of victims/targets, volitional control over their impulses and behaviors, or their appraisals of threats and grievances. Propensity notwithstanding, as with most human behaviors, situational and contextual factors profoundly affect whether and how psychological characteristics or propensities manifest themselves (Sherman, Nave, & Funder, 2013). To understand any connection between abnormal psychology and terrorism, focusing on these individual psychological processes may be more promising and useful than looking for unique personality traits or diagnoses.

Three specific psychological vulnerabilities have been commonly observed among violent extremists: (1) a need for personal meaning and identity; (2) a need for

belonging; and (3) perceived injustice/humiliation (Borum, 2004, 2011a,2011b). These vulnerabilities (or “need” states) often create an opening that can increase a person’s receptivity to imposed ideas, influence, and sometimes even to seeking alternative worldviews.

### **Need for Meaning/Identity**

Numerous studies have found that nearly every human, across cultures, has a deep and profound psychological need to create a sense of personal meaning and significance (Heine, Proulx, & Vohs, 2006; Hogg, 2007; Klinger, 1998; Mendoza-Denton & Hansen, 2007; Park, 2010). Psychologist Roy Baumeister (1991) suggests that the quest for meaning is driven by four component needs:

- *Sense of purpose.* A sense of purpose comes from believing that one’s actions and activities “make a difference” and affect the outcomes of future events.
- *Efficacy.* Feelings of efficacy comes from one’s sense of control over the basic directions and outcomes of one’s life.
- *Value.* A sense of value comes from a belief that one’s actions are good or correct in a moral sense.
- *Self-worth.* Self-worth comes from a sense that the person him/herself is fundamentally “good” and possesses desirable characteristics.

Fulfilling these needs is a foundation for a sense of personal identity – a stable sense of who one is and of one’s values in key domains. As many people recall from their adolescence, developing this identity can be a complicated, uncertain, and anxiety-provoking experience. Instead of wrestling with it, some people just gravitate toward an existing, structured set of beliefs and adopt them with little critical thought or personal reflection (Hogg, 2009). The absolutist, black-and-white nature of most extremist ideologies is often attractive to those who feel overwhelmed by the complexity and stress of finding meaning in a complicated world (Kruglanski *et al.*, 2009; Schwartz, Dunkel, & Waterman, 2009).

### **Need for Belonging**

Having taken on a particular worldview, individuals may then choose to define their identity simply through the worldview’s group membership (e.g., religious, political, social) or identification with a cause (Park & Edmondson, 2011; Taves & Paloutzian, 2011). A key element in nearly any quest for meaning is a person’s sense of belonging (Baumeister & Leary, 1995; Baumeister, Brewer, Tice, & Twenge, 2007). It has been argued that belongingness is a social evolutionary adaptation because human survival has relied, to some extent, on our interdependence as a species (Stillman & Baumeister, 2009; Stillman *et al.*, 2009). Without a core sense of belonging, if a person has been rejected or excluded, he or she is more likely to endorse ideas about the futility of – and lack of meaning in – life (Williams, 2002).

The human need for belonging has such great power that the void resulting from its absence creates a psychological vulnerability to exploitation by nearly any collective that offers acceptance and security. In radical movements and extremist groups, many

prospective terrorists find not only a sense of meaning, but also a sense of belonging, connectedness and affiliation. This is why “radicalization” itself is often regarded as a “social process,” not just an ideological one (Munton, Martin, & Lorenc, 2011). Ideological zeal, it seems, is not what drives many into a terrorist group, but an affinity for the group itself may drive many toward the ideology. Crenshaw (1983) suggests that “for the individuals who become active terrorists, the initial attraction is often to the group, or community of believers, rather than to an abstract ideology or to violence” (p.59).

## **Perceptions of Injustice or Humiliation**

Perceptions of injustice or humiliation create a third area of psychological vulnerability (Brown & Abernethy, 2010). Social scientists have long recognized perceived injustice and humiliation as central factors in understanding violence generally (van den Bos, 2007) and terrorism specifically (Deutsch, 1985; Dornschneider, 2010; Jurgensmeyer, 2000; Pargament, Magyar, Benore, & Mahoney, 2005). In the mid-1970s, Hacker (1976) concluded that “remediable injustice is the basic motivation for terrorism”.

Three features of injustice make it a particularly potent accelerator for violent extremism. First, people are naturally inclined to view injustice as an intentional act. We are socialized to believe that although “bad” things may happen in life, injustices typically do not occur without some human cause. People default to believing – or at least wishing to believe in – a “just world”, “where people generally get what they deserve and deserve what they get” (Lerner & Miller, 1978, p.1030). Violations of the “just world” rule create anger and resentment. If people find themselves a victim of injustice, then they assume someone else is at fault for that condition. By attributing blame, accumulated resentments now have a target (Borum, 2003, 2004). So feelings of injustice can drive an individual to identify a responsible perpetrator, and, conversely, identifying acts of wrongdoing by a perpetrator can trigger a sense of injustice (Lotz *et al.*, 2011).

Secondly, the ways in which people process social information largely drives the clarity and strength of injustice sentiments. Psychologists call that kind of information processing “social cognition.” The power of injustice over an individual, then, comes from how sensitive a person is to detecting injustices, and how much that person rehearses, ruminates and fuels them.

Thirdly, perceptions of injustice can prompt powerful, moral emotions that potentiate a drive to punish the offender (Blasi, 1999; Tangney, Stuewig, & Mashek, 2007). Moral emotions are those “linked to the interests or welfare either of society as a whole or at least of persons other than the judge or agent” (Haidt, 2003, p. 853). A sense of injustice evokes moral emotions, particularly moral outrage (Feather, 2006; Lotz *et al.*, 2011). Moral emotions, then, can galvanize an in-group (Alzeni, 2009) and drive a strong and sometimes irrational desire to punish the wrongdoer (Fehr & Gächter, 2002). Lotz *et al.* (2011) suggest that, for some, moral emotions and a sense of justice drive the desire to punish or harm others, but for others punishment is neither distributive (e.g., “just deserts”) nor retributive (e.g., “right a wrong”). Punishment is an end unto itself. In these instances, actors are driven mainly by the “gains” they anticipate from harming another person (Knutson, 2004). Any personal losses incurred are incidental.

These three common areas of psychological vulnerability – need for personal meaning and identity, need for belonging, and perceived injustice/humiliation – articulate with varying “types” of motivations found in prior analyses of terrorism and typologies

of potential militant recruits. Venhaus (2010), for example, based on interviews and personal histories of 2,032 “foreign fighters” who sought to affiliate with al Qaida-related movements, views recruits as “seekers”: “the recurring theme was that they all were looking for something ... they want to understand who they are, why they matter, and what their role in the world should be. They have an unfulfilled need to define themselves, which al-Qaida offers to fill” (p. 8).

The following sections discuss how motivational, attributional style, volitional, and attitudinal propensities might affect the likelihood or nature of a person’s involvement with violent extremism.

## MOTIVATIONAL PROPENSITIES

Motive (motivation) characterizes the needs, wants, interests, and desires that steer people in a certain direction. The approach–avoidance dynamic is a common psychological basis for conceptualizing human motivation (Elliot, 2006). The approach–avoidance model suggests that whenever humans 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 (2008) 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. People become involved in terrorism for a variety of reasons, not just because they have a conversion experience to a radical ideology. As Martha Crenshaw (1986) 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).

### Motivational Clusters

At least five motivational clusters are found often enough among persons who become involved in terrorism to be noteworthy (Borum, 2004, 2011b; Crenshaw, 1986; Horgan, 2008; Victoroff, 2005; Venhaus, 2010):

- *Status-related*, in which individuals receive praise or recognition from involvement that bolsters self-esteem or elevates their 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;
- *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.

These five 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.

## ATTRIBUTIONAL PROPENSITIES

A person's attributional style is another category of propensities that can affect the likelihood of involvement with extremism and terrorism. As Penn, Sanna, and Roberts (2008) describe it: "attributional style refers to explanations people generate regarding the causes of positive and negative events in their lives" (p. 409). People attribute the "causes" of positive and negative events to themselves, to others, or to situational factors.

The specific dimensions of causal attributions are internal vs. external (how much a person believes himself responsible for the event), stable vs. unstable (how much a person believes the cause of the event is present over time), and global vs. specific (how much a person believes the cause of the event occurs across varying conditions). An optimistic explanatory style is characterized by the following:

If the event is negative:

*External + unstable + specific*

If the event is positive:

*Internal + stable + global*

A negative explanatory style is characterized in the opposite way (Peterson *et al.*, 1982). The way people make attributions is pertinent to how they develop grievances, ascribe blame, and evaluate those regarded as responsible for negative events.

It is not unusual for people to "default" to attributing positive outcomes to themselves and negative outcomes to others. But there is typically a self-correcting mechanism that tests the reality of those attributions and makes corrections when presented with new, disconfirmatory evidence. Some people, however, have problems encoding and interpreting cues from others in social contexts. This is a kind of information-processing deficit. Apart from the general description of a "negative" style, there are some systematic and troublesome attributional biases that are relevant to how people perceive threats and alliances and interpret others' behavior (O'Connor, 2009). These include the following:

- *Externalizing bias (EB)*. A general tendency to avoid seeing oneself as responsible for negative events, but to blame other people and circumstances. EB is found in often in people with delusions – especially persecutory delusions – particularly at a psychotic level of severity (Bell, Halligan, & Ellis, 2006 – explaining delusions).

- *Personalizing bias (PB)*. A specific tendency to ascribe blame to other people, rather than circumstances (or self) for negative events. PB has also been linked to paranoid and persecutory delusions in schizophrenia. With psychotic paranoia, PB obstructs the usual mechanisms that correct our negative/blaming attributions to others when evidence suggests otherwise (Penn *et al.*, 2008). This PB obstruction usually occurs because of an unusually strong need for closure (or intolerance of ambiguity) and impaired theory of mind (ToM) (Penn *et al.*, 2008).

Both an unusually strong need for closure and an impaired ToM have been found in people with persecutory delusions (Bentall *et al.*, 2001; Bentall & Swarbrick, 2003; Garety & Freeman, 1999; Randall, Corcoran, Day, & Bentall, 2003; Taylor & Kinderman, 2002). ToM is basically the ability to perceive, interpret and understand – based on another person’s own ideas, values and experiences – what that other person might be thinking and feeling in a given situation (Penn *et al.*, 2008). ToM impairments are found not only with delusions but also with subclinical psychotic or psychosis-like experiences (Marjoram *et al.*, 2006; Pickup, 2006; van Os *et al.*, 2009). Not only has PB been linked to paranoia and persecutory delusions, but the combination of EB and PB has also been identified as a vulnerability for personality disorders (Langdon *et al.*, 2006).

- *Hostile attribution bias (HAB)*. Also called “hostile attribution of intent”, HAB is a predisposition to ascribe hostile meaning to others’ words and actions, even when it was not intended. It is not surprising that this attributional bias is linked to aggression and a range of other negative social outcomes (Orobio de Castro *et al.*, 2002). People with HAB are overly sensitive to detecting grievous intent, events, and actions (Jones, Miller, & Lynam, 2011). These persons “detect” grievous intent, even when it is not there. In previous studies, hostile attributional styles have been linked to a number of mental syndromes, including borderline personality disorder (Bender, Morey, & Skodol, 2011; Lerner & St. Peter, 1984; Westen *et al.*, 1990) and narcissistic personality disorder (Hartouni, 1992).
- *Confirmation bias (CB)*. CB is a perceptual tendency to attend selectively to information that is consistent with a pre-existing belief and to disregard contrary or disconfirming information. This process is one explanatory mechanism for how people maintain delusional beliefs (Freeman, 2007; van Dael *et al.*, 2006).
- *Jumping to conclusions*. Jumping to conclusions is a data-gathering bias. It is a style of reasoning comprising an inclination toward “early acceptance” and, to a lesser extent, early rejection of hypotheses (Colbert & Peters, 2002). More precisely, persons who jump to conclusions show a tendency to seek less information to reach a decision. Jumping to conclusions may, under certain conditions, contribute to erroneous inferences and is hypothesized to lead to the formation and/or maintenance of delusions (van Dael *et al.*, 2006, p.341).

Grievances – personal or political – often help push a person toward involvement in terrorism. As we noted in the previous section, however, the potency of grievous events and actions is driven by the person’s sensitivity in detecting them and that person’s preoccupation with grievance-related ideas and sentiments after they are detected. A person’s cognitive appraisals largely determine whether he or she will perceive negativity or hostile intent. Cognitive appraisals give meaning to our perceptions. According to

Stets and Turner (2008), “cognitive appraisals revolve around the following: general definitions of self, other(s), and situations; attributions for the causes behind situational outcomes; awareness of one’s place in the social structure; and recognition of cultural guidelines (p. 33)”.

Cognitive appraisals give meaning to our experiences. Once we perceive an event, our appraisals quickly and almost automatically produce an “implicit meaning” (Thompson & Janigan, 1988). Initial appraisals occur without reflection and deliberation, but they classify important features of the event itself, such as whether it poses a threat, whether it can be controlled, why it occurred, and what implications it has for future action. Appraisals are revised as new information becomes available or new connections are made (Park, 2010).

Certain social cognitive deficits, however, can alter cognitive appraisals in ways that distort how a person perceives and interprets others’ actions and events. At the extreme, these traits might be caused by severe disturbances in mood or thinking or manifest as part of a personality disorder (or some maladaptive personality syndrome).

Attributional biases, including paranoia, and sub-clinical or clinical delusions, can be an antecedent or a consequence of terrorism involvement. In *The Psychopolitics of Hatred*, Robins and Post (1997) describe seven elements of paranoia: extreme suspiciousness, centrality, grandiosity, hostility, fear of loss of autonomy, projection, and delusional thinking. The paranoid style of thinking shows a HAB, a low threshold for discerning threat, and a persistence of grudges for past grievances.

## **VOLITIONAL AND AFFECTIVE PROPENSITIES**

Volition and emotion comprise a third area of potential vulnerability and propensity. Volition comprises the nature and degree of control that persons have over their emotions, motivations/needs, thoughts, impulses, and behaviors to achieve functional goals (Hautzinger, 1994; Kuhl, 1994). Functional goals typically involve implementing intentions.

### **Volitional Propensities: Self-regulation and Self-concept**

A two-part model of self-regulation and self-control is a popular contemporary framework for understanding this volitional capacity (Kuhl, 1992; Kuhl & Goschke, 1994). In this model, volition operates as a “control center” for goal-directed behavior by coordinating attention, motivation, emotion, activation, cognition, and action (Forstmeier & Ruddel, 2008). Self-control provides the discipline. Self-control inhibits thoughts, feelings and impulses (subsystems) that might interfere – or be inconsistent with – the active goal or intention. Self-regulation integrates and coordinates the subsystems that focus attention and increase motivation to pursue the goal (Kuhl, 1992; Kuhl & Fuhrmann, 1998; Kuhl & Goschke, 1994).

Volition is closely tied to self-concept and identity. Symbolic self-completion theory provides one framework for exploring the volition–identity connection (Wicklund & Gollwitzer, 1982). The concept of symbolic self-completion suggests that people try to define themselves with identity labels, and use indicators that signal to others (and to themselves) their competence or achievement in that realm of activity. Accordingly, the ways in which people invest their time and resources (e.g., things they buy or goals they pursue) are “symbols” that people use to clarify their own identities and

substantiate their own self-definitions (Gollwitzer, Bayer, Scherer, & Seifert, 1999; Wicklund & Gollwitzer, 1981, 1982).

If a man, for example, defines himself as a “freedom fighter,” he may attend rallies and gathering, pursue training in how to fight, purchase an AK-47, speak out against oppressors. Those are symbols. And those symbols do not just appear coincidentally with the person’s activities. They take on a personal meaning that reinforces the person’s own label as a freedom fighter. If he does not have the symbols that readily (and positively) identify him as a freedom fighter, he will actively seek them to provide that clarification. These are activities to defend against an identity threat or challenge.

Deficits in volitional competence are often associated with disorders involving impulsivity, and may also be “a vulnerability factor for anxiety disorders and depression” (Forstmeier & Rüdell, 2007, p. 66). These same deficits may lead some individuals to be more receptive – or at least have less resistance – to attempts to persuade or coerce them to accept an extreme ideology and to endorse militant, violent actions in service of a cause.

## ATTITUDINAL PROPENSITIES

Attitudes comprise a person’s internal appraisals of people, objects, events, and issues that predispose them to respond favorably or unfavorably. Attitudes are similar in many ways to personality traits in that they are both stable dispositions. Attitudes, however, are distinguishable from traits because they are evaluative in nature and because they are directed at a given target or object. Traits describe a person’s tendencies to respond in a given domain (Ajzen, 2005).

Attitudes themselves are “hypothetical” constructs. They cannot be observed directly but are inferred from a person’s behavior and responses. Attitudinal propensities are expressed through a person’s behavioral responses.

A number of attitudes might affect a person’s involvement in terrorism. Attitudes toward terrorism itself (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 involvement in terrorism. The vast majority of 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. Nevertheless, attitudes can create propensities that affect terrorism involvement. The propensities can also increase vulnerability to psychopathology, particularly personality disorders.

Some categories of relevant attitudinal predispositions might include the following:

- *Proviolence attitudes.* 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 the 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). Stankov *et al.* (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” (p. 75). Ideas about the instrumental utility or

instrumentality of violence are also a characteristic feature of psychopathy (Camp *et al.*, 2013; Glenn & Raine, 2009; Walsh, Swogger, & Kosson, 2009).

- *Grievances.* Attitudes pertaining to perceived grievances and injustices can also create a propensity to terrorism involvement or to the ideologies and justifications that drive it (Chernick, 2004). 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 (1994) observe that

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).

- *External threat.* At an individual level, threat perceptions and threatening attitude objects can affect an actor emotionally and cognitively in ways that might affect the likelihood of involvement in terrorism. 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, as is true for paranoid ideation, can trigger a decision to act “defensively” and facilitate negative attributions about the source of the threat (Slovic, 2003).
- *Sensation-Seeking.* Thrill-seeking, a specific form of sensation-seeking, is another line of “activating” attitudes that are potentially relevant to terrorism involvement. Some individuals are characteristically drawn to risky or dangerous behaviors, not necessarily because they impulsively disregard the consequences, but because the appeal of adventure and excitement outweighs them (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).
- *Disinhibition.* In addition to the “activating” factors, potentially “disinhibiting” attitudes can affect propensity for violent action. 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, people might invoke a moral justification or appeal to higher loyalties; they might displace or disavow their own personal sense of agency or responsibility, sometimes deferring to a duty, authority, or absence of choice; they might cast the victim as being blameworthy or deserving of the adverse action; or perhaps even devalue or dehumanize the victim. Other relevant disinhibiting factors to assess might include a generally low capacity for empathy or ability to understand another’s perspective, and low restraint or low self-control which has been empirically and theoretically linked to nearly all forms of criminal and transgressive behaviors.

## CONCLUSION

Although mental illnesses are not common as proximate causes for terrorism involvement, vulnerabilities and propensities may be. The challenge for operational personnel is to understand when, how, for whom, and in what circumstances specific psychological

functions and processes, particularly maladaptive ones, might be relevant to understanding a person’s pathway into and through violent extremist activity.

For an operational assessment, the key function is the subject’s ability to engage in goal-directed behavior and to act on intentions. The cognitive organizational skills necessary for goal-directed behavior involve thinking logically (i.e., that anticipated consequences reasonably follow from anticipation action); coherence (i.e., the ability to connect together different ideas and elements of thought to formulate an overarching concept or plan); consistency (i.e., that the assumptions, premises, and anticipated actions are “internally consistent” – that they do not conflict or directly contradict one another); and, finally, control (i.e., capacity for self-regulation to monitor, inhibit and intentionally execute specific cognitive, emotional and behavioral functions).

Many practitioners (and others) understandably want to know the answer to the question, “What makes terrorists tick?” Some turn to knowledge about abnormal psychology, mental disorder, and mental illness in their search for answers. However, research suggests that knowledge of mental illness has little to offer professionals with operational responsibilities for preventing and dealing with terrorism.

Rather than focusing a “psychology of terrorism” primarily on mental disorder, it might be more useful to explore vulnerabilities and propensities. Questions about a subject’s motivational, attributional, volitional, emotional, attitudinal, and worldview propensities may offer information about where the subject is on a path toward or away from involvement with terrorism and terrorist organizations. For subjects involved with terrorist activities and groups, such knowledge may be useful in both understanding and modifying behaviors of concern.

## REFERENCES

- Adorno, T., Frenkel-Brunswick, E., Levinson, D., & Sanford, N. (1950). *The Authoritarian Personality*. New York, NY: Harper.
- Ajzen, I. (2005). *Attitudes, Personality and Behavior* (2nd ed.). Milton-Keynes, England: Open University Press.
- Alexander, D., & Klein, S. (2005). The psychological aspects of terrorism: from denial to hyperbole. *Journal of the Royal Society of Medicine*, 98(12), 557–562. doi:10.1258/jrsm.98.12.557
- Altemeyer, B. (1981). *Right-Wing Authoritarianism*. Winnipeg, Manitoba, Canada: University of Manitoba Press.
- Altemeyer, B. (1996). *The Authoritarian Specter*. Cambridge, MA: Harvard University Press.
- Alzeni, M. (2009). Searching for injustice and finding solidarity? A contribution to the mobilisation theory debate. *Industrial Relations Journal*, 40(1), 5–16.
- Bandura, A. (1990). Mechanisms of moral disengagement. In W. Reich (Ed.), *Origins Of Terrorism: Psychologies, Ideologies, Theologies, States Of Mind* (pp. 162–191). Cambridge: Cambridge University Press.
- Bandura, A. (2004). The role of selective moral disengagement in terrorism and counterterrorism. In F. M. Moghaddam & A. J. Marsella (Eds.), *Understanding Terrorism: Psychosocial Roots, Causes, And Consequences* (pp. 121–150). Washington DC: American Psychological Association.
- Baumeister, R. F. (1991). *Meanings of life*. New York: Guilford.
- Baumeister, R. F., Brewer, L. E., Tice, D. M., & Twenge, J. M. (2007). Thwarting the need to belong: Understanding the interpersonal and inner effects of social exclusion. *Social and Personality Psychology Compass*, 1, 506–520.
- Baumeister, R. F., & Campbell, W. K. (1999). The intrinsic appeal of evil: Sadism, sensational thrills, and threatened egotism. *Personality and Social Psychology Review*, 3, 210–221.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Bell, V., Halligan, P. W., & Ellis, H. D. (2006). Diagnosing delusions: a review of inter-rater reliability. *Schizophrenia Research*, 86, 76–79.

- Bender, D. S., Morey, L. C., & Skodol, A. E. (2011). Toward a Model for Assessing Level of Personality Functioning in DSM – 5 , Part I : A Review of Theory and Methods. *Journal of Personality Assessment*, 93(4), 332–346. doi:10.1080/00223891.2011.583808
- Bentall, R., & Swarbrick, R. (2003). The best laid schemas of paranoid patients: autonomy, sociotropy, and need for closure. *Psychology and Psychotherapy: Theory, Research and Practice*, 76, 163–171.
- Bentall, R., Corcoran, R., Howard, R., Blackwood, N., & Kinderman, P. (2001). Persecutory delusions: a review and theoretical integration. *Clinical Psychology Review*, 21, 1143–1192.
- Berlet, C. (2004). Christian identity: the apocalyptic style, political religion, palingenesis and neo-fascism. *Totalitarian Movements and Political Religions*, 5(3), 469–506. doi:10.1080/1469076042000312221
- Blasi, A. (1999). Emotions and moral motivation. *Journal for the Theory of Social Behaviour*, 29 (1), 1–19.
- Bokhari, L., Hegghammer, T., Lia, B., Nesser, P., & Tonnessen, T. (March 15, 2006). Paths to Global Jihad: Radicalisation and Recruitment to Terror Networks, FFI Seminar hosted by the Norwegian Defense Research Establishment, Kjeller, Norway.
- Borum, R. (2003). Understanding the terrorist mindset. *FBI Law Enforcement Bulletin*, 72(7), 7–10. Retrieved from [http://works.bepress.com/randy\\_borum/7/](http://works.bepress.com/randy_borum/7/) (6 January 2014)
- Borum, R. (2004). Psychology of Terrorism. Tampa, Florida: University of South Florida. Retrieved from [http://works.bepress.com/randy\\_borum/1/](http://works.bepress.com/randy_borum/1/) (6 January 2014)
- Borum, R. (2011a). Radicalization and Involvement in Violent Extremism I: A Review of Definitions and Applications of Social Science Theories. *Journal of Strategic Security*, 4(4), 7–36. Retrieved from [http://works.bepress.com/randy\\_borum/56/](http://works.bepress.com/randy_borum/56/) (6 January 2014)
- Borum, R. (2011b). Radicalization and Involvement in Violent Extremism II: A Review of Conceptual Models and Empirical Research. *Journal of Strategic Security*, 4(4), 37–62. Retrieved from [http://works.bepress.com/randy\\_borum/57/](http://works.bepress.com/randy_borum/57/) (6 January 2014)
- Borum, R. (2011c). Understanding terrorist psychology. In A. Silke (Ed.), *Psychology of Counterterrorism* (pp. 19–33). Abingdon, Oxon: Routledge. Retrieved from [http://works.bepress.com/randy\\_borum/45/](http://works.bepress.com/randy_borum/45/) (6 January 2014)
- Brand, P. A., & Anastasio, P. A. (2006). Violence-Related Attitudes and Beliefs Scale Construction and Psychometrics. *Journal of Interpersonal Violence*, 21(7), 856–868.
- Brown, A., & Abernethy, A. (2010). Sacred violations, perceptions of injustice, and anger in Muslims. *Journal of Applied Social Psychology*, 40(5), 1003–1027.
- Camp, J. P., Skeem, J. L., Barchard, K., Lilienfeld, S. O., & Poythress, N. G. (2013). Psychopathic Predators? Getting Specific About the Relation Between Psychopathy and Violence. *Journal of Consulting and Clinical Psychology*, 81, 467–480. Advance publication posted Jan 14, 2013.
- Chernick, M. W. (2004). Does Injustice Cause Violence? In S. Eckstein & T. Wickham-Crowley (Eds.), *What Justice, Whose Justice? Fighting for Fairness in Latin America*. (199–220). Berkeley: University of California Press.
- Cohrs, J. C. (2013). Threat and authoritarianism : Some theoretical and methodological comments. *International Journal of Psychology*, 48(1), 50–54.
- Colbert, S. M., & Peters, E. R. (2002). Need for closure and jumping-to-conclusions in delusion-prone individuals. *Journal of Nervous and Mental Disease*, 190, 27–31.
- Crenshaw, M. (1983). *Terrorism, Legitimacy, and Power: The consequences of political violence*. Middletown, CT: Wesleyan University Press.
- Crenshaw, M. (1986). The psychology of political terrorism. In M. G. Hermann (Ed.), *Political psychology: contemporary problems and issues* (pp. 379–413). London: Josey-Bass.
- Crenshaw, M. (1992). Decisions to use terrorism: Psychological constraints on instrumental reasoning. *International Social Movements Research*, 4, 29–42.
- van Dael, F., Versmissen, D., Janssen, I., Myin-Germeys, I., van Os, J., & Krabbendam L. (2006). Data gathering: biased in psychosis. *Schizophrenia Bulletin*, 32, 341–351.
- De Regt, S., Mortelmans, D., & Smits, T. (2011a). Left-wing authoritarianism is not a myth, but a worrisome reality. Evidence from 13 Eastern European countries. *Communist and Post-Communist Studies*, 44(4), 299–308.
- De Regt, S., Smits, T., & Mortelmans, D. (2011b). Trends in authoritarianism: Evidence from 31 European countries. *The International Journal of Social Sciences and Humanity Studies*, 3(1), 395–404.
- Deutsch, M. (1985). Awakening the Sense of Injustice. In M. Deutsch (Ed.), *Distributive Justice: A Social Psychological Perspective* (pp. 46–63). New Haven: Yale University Press.
- Dollard, J., & Miller, N. E. (1950). *Personality and Psychotherapy*. New York: McGraw-Hill.
- Dornschneider, S. (2010). Belief systems and action inferences as a source of violence in the name of Islam. *Dynamics of Asymmetric Conflict*, 3(3), 223–247.
- Duckitt, J., & Fisher, K. (2003). The Impact of Social Threat on Worldview and Ideological Attitudes. *Political Psychology*, 24(1), 199–222.
- Elliot, A. J. (2006). The hierarchical model of approach-avoidance motivation. *Motivation and Emotion*, 30(2), 111–116.
- Feather, N. T. (2006). Deservingness and emotions: Applying the structural model of deservingness to the analysis of affective reactions to outcomes. *European Review of Psychology*, 17, 38–73.
- Fehr, E., & Gächter, S. (2002). Altruistic punishment in humans. *Nature*, 415, 137–140.

- Felson, R. B., Liska, A. E., South, S. J., & McNulty, T. L. (1994). The subculture of violence and delinquency: Individual vs. school context effects. *Social Forces*, 73(1), 155–173.
- Forstmeier, S., & Rüdell, H. (2007). Improving volitional competence is crucial for the efficacy of psychosomatic therapy: A controlled clinical trial. *Psychotherapy and Psychosomatics*, 76, 89–96.
- Freeman, D. (2007). Suspicious minds: the psychology of persecutory delusions. *Clinical Psychology Review*, 27, 425–457.
- Galen, L. (2011). The Fundamentalist Mindset: Psychological Perspectives on Religion, Violence, and History. *International Journal for the Psychology of Religion*, 21(3), 237–241. doi:10.1080/10508619.2011.581583
- Garety, P., & Freeman, D. (1999). Cognitive approaches to delusions: a critical review of theories and evidence. *British Journal of Clinical Psychology*, 38, 113–154.
- Glenn, A. L., & Raine, A. (2009). Psychopathy and instrumental aggression: Evolutionary, neurobiological, and legal perspectives and legal perspectives. *International Journal of Law and Psychiatry*, 32(4), 253–258. doi:10.1016/j.ijlp.2009.04.002.
- Gollwitzer, P., Bayer, U., Scherer, M., & Seifert, A. (1999). A Motivational-Volitional Perspective on Identity Development. In J. Brandtstädter & R. Lerner (Eds.), *Action & Self-Development: Theory and Research through the Life Span* (pp. 283–314). Thousand Oaks, CA: Sage Publications.
- Hacker, F. J. (1976). *Crusaders, criminals, crazies: terror and terrorism in our time*. New York: W.W. Norton.
- Haidt, J. (2003). The moral emotions. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective science* (pp. 852–870). Oxford: Oxford University Press.
- Hartouni, Z. S. (1992). Effects of narcissistic personality organization on causal attributions. *Psychological Reports*, 71(3 Pt 2), 1339–1346. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/1480720> (6 January 2014)
- Hautzinger M. (1994). Action control in the context of psychopathological disorders. In J. Kuhl & J. Beckmann (Eds.), *Volition And Personality: Action Versus State Orientation* (pp. 209–215). Göttingen: Hogrefe.
- Heimer, K. (1997). Socioeconomic status, subcultural definitions, and violent delinquency. *Social Forces*, 75(3), 799–833.
- Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The meaning maintenance model: On the coherence of social motivations. *Personality and Social Psychology Review*, 10, 88–110.
- Hetherington, M., & Suhay, E. (2011). Authoritarianism, Threat, and Americans’ Support for the War on Terror. *American Journal of Political Science*, 55(3), 546–560. doi:10.1111/j.1540-5907.2011.00514.x
- Hogg, M. (2007). Uncertainty–identity theory. *Advances in Experimental Social Psychology*, 39(06), 69–126. doi:10.1016/S0065-2601(06)39002-8
- Hogg, M. A. (2009). Managing Self-Uncertainty Through Group Identification. *Psychological Inquiry*, 20, 221–224. doi:10.1080/10478400903333452
- Horgan, J. (2003). The search for the terrorist personality. In A. Silke (Ed.), *Terrorist, Victims, And Society: Psychological Perspectives On Terrorism And Its Consequence* (pp. 3–27). London: John Wiley.
- Horgan, J. (2008). From profiles to pathways and roots to routes: Perspectives from psychology on radicalization into terrorism. *The ANNALS of the American Academy of Political and Social Science*, 618, 80–94.
- Humaidi, N. S. (2012). P-660 - Causal connection between terrorism and mental illness. *European Psychiatry*, 27, 1. doi:10.1016/S0924-9338(12)74827-7
- Jones, S. E., Miller, J. D., & Lynam, D. R. (2011). Personality, antisocial behavior, and aggression: A meta-analytic review. *Journal of Criminal Justice*, 39(4), 329–337. doi:10.1016/j.jcrimjus.2011.03.004
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political Conservatism as Motivated Social Cognition. *Psychological Bulletin*, 129 (3), 339–375.
- Katz, J. (1988). *Seductions Of Crime: Moral And Sensual Attractions In Doing Evil*. New York: Basic Books.
- Klinger, E. (1998). The search for meaning in evolutionary perspective and its clinical implications. In P. T. P. Wong & P. S. Fry (Eds.), *The Human Quest For Meaning: A Handbook of Psychological Research and Clinical Applications* (pp. 27–50). Mahwah, NJ: Erlbaum.
- Knutson, B. (2004). Sweet Revenge? *Science*, 305(5688), 1246–1247.
- Kruglanski, A. W., Chen, X., Dechesne, M., Fishman, S., & Orehek, E. (2009). Fully Committed: Suicide Bombers’ Motivation and the Quest for Personal Significance. *Political Psychology*, 30(3), 331–357. doi:10.1111/j.1467-9221.2009.00698.x
- Kuhl, J. (1992). A theory of self-regulation: Action versus state orientation, self-discrimination, and some applications. *Applied Psychology*, 41(2), 97–129.
- Kuhl, J. (1994). A theory of action and state orientations. In J. Kuhl & J. Beckmann (Eds.), *Volition And Personality. Action- and State-Oriented Modes of Control* (pp. 9–46). Seattle, Göttingen: Hogrefe.
- Kuhl, J., & Fuhrmann, A. (1998). Decomposing self-regulation and self-control: The Volitional Components Inventory. In J. Heckhausen & C. Dweck (Eds.), *Motivation and Self-Regulation Across The Life Span* (pp. 15–49). Cambridge: Cambridge University Press.

- Kuhl, J., & Goshke T. (1994). A theory of action control: Mental subsystems, modes of control, and volitional conflict-resolution strategies. In J. Kuhl & J. Beckmann (Eds.), *Volition and Personality: Action Versus State Orientation* (pp. 93–124). Göttingen: Hogrefe.
- Langdon, R., Corner, T., McLaren, J., Ward, P. B., & Coltheart, M. (2006). Externalizing and personalizing biases in persecutory delusions: the relationship with poor insight and theory-of-mind. *Behaviour Research and Therapy*, 44(5), 699–713. doi:10.1016/j.brat.2005.03.012
- Lerner, J. S., Gonzalez, R. M., Small, D. A., & Fischhoff, B. (2003). Effects of fear and anger on perceived risks on terrorism: A national field experiment. *Psychological Science*, 14, 144–150.
- Lerner, J. S., & Keltner, D. (2000). Beyond valence: Toward a model of emotion-specific influences on judgment and choice. *Cognition & Emotion*, 14, 473–493.
- Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, 81, 146–159.
- Lerner, H. D., & St. Peter, S. (1984). Patterns of object relations in neurotic, borderline, and schizophrenic patients. *Psychiatry*, 47, 77–92.
- Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin*, 85, 1030–1051.
- Lewin, K. (1958). Group Decision and Social Change. In G. E. Swanson, T. M. Newcomb, & E. L. Hartley (Eds.), *Readings in Social Psychology* (rev. ed.). New York: Holt, 459–473.
- Lotz, S., Baumert, A., Schlosser, T., Gresser, F., & Fetchenhauer, D. (2011). Individual Differences in Third-Party Interventions: How Justice Sensitivity Shapes Altruistic Punishment. *Negotiation and Conflict Management Research*, 4(4), 297–313.
- Marjoram D., Miller P., McIntosh A., Owens D. G. C., Johnstone E., & Lawrie S. (2006). A neuropsychological investigation into 'Theory of Mind' and enhanced risk of schizophrenia. *Psychiatry Research*, 144, 29–37.
- Markowitz, F. E., & Felson, R. B. (1998). Social-Demographic Attitudes and Violence. *Criminology*, 36(1), 117–138.
- McAlister, L., & Pessemier, E. (1982) Variety Seeking Behavior: An Interdisciplinary Review, *Journal of Consumer Research*, 9, 311–322.
- Meloen, J. D. (1993). The F Scale as a Predictor of Fascism: An Overview of 40 Years of Authoritarianism Research. In W. Stone, G. Lederer, & R. Christie (Eds.), *Strength and Weakness: The Authoritarian Personality Today* (pp. 47–69). New York: Springer-Verlag.
- Mendoza-Denton, R., & Hansen, N. (2007). Networks of meaning: Inter-group relations, cultural worldviews, and knowledge activation principles. *Social and Personality Psychology Compass*, 1, 68–83.
- Miller, N. E. (1959). Liberalization of Basic S-R Concepts: Extensions of Conflict Behavior, Motivation, and Social Learning. In S. Koch (Ed.), *Psychology: A Study of a Science* (Vol. 2, pp. 196–292). New York: McGraw-Hill.
- Munton, T., Martin, A., & Lorenc, T. (2011). *Understanding vulnerability and resilience in individuals to the influence of Al Qaeda violent extremism- Occasional Paper 98*. London. Retrieved from <http://www.matrixknowledge.co.uk/Documents/Extremism.pdf>
- O'Connor, K. (2009). Cognitive and meta-cognitive dimensions of psychoses. *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie*, 54(3), 152–159. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/19321019> (6 January 2014)
- O'Leary, S. (1994). *Arguing the Apocalypse: A Theory of Millennial Rhetoric*. New York: Oxford University Press.
- Orobio de Castro, B., Veerman, J. W., Koops, W., Bosch, J. D., & Monshouwer, H. J. (2002). Hostile attribution of intent and aggressive behavior: a meta-analysis. *Child development*, 73(3), 916–934. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/12038560> (6 January 2014)
- van Os, J., Linscott, R. J., Myin-Germeys, I., Delespaul, P., & Krabbendam, L. (2009). A systematic review and meta-analysis of the psychosis continuum: evidence for a psychosis proneness-persistence-impairment model of psychotic disorder. *Psychological Medicine* 39, 179–195.
- Ostow, M. (1986). The Psychodynamics of Apocalyptic: Discussion of Papers on Identification and the Nazi Phenomenon. *International Journal of Psychoanalysis*, 67, 277–285.
- Ostow, M. (1995). *Ultimate Intimacy: The Psychodynamics of Jewish Mysticism*. London: Karnac Books.
- Ostow, M. (1996). Myth and Madness: A Report of a Psychoanalytic Study of Antisemitism. *International Journal of Psychoanalysis*, 77, 15–31.
- Pargament, K. I., Magyar, G. M., Benore, E., & Mahoney, A. (2005). Sacrilege: A study of sacred loss and desecration and their implications for health and well-being in a community sample. *Journal for the Scientific Study of Religion*, 44, 59–79.
- Park, C. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, 136(2), 257–301. doi:10.1037/a0018301
- Park, C. L., & Edmondson, D. (2011). Religion as a Quest for Meaning. In M. Mikulincer & P. Shaver (Eds.), *The Psychology of Meaning*. Washington, DC: American Psychological Association.
- Penn, D. L., Sanna, L. J., & Roberts, D. L. (2008). Social cognition in schizophrenia: an overview. *Schizophrenia Bulletin*, 34(3), 408–411. doi:10.1093/schbul/sbn014
- Peterson, C., Semmel, A., von Baeyer, C., Abramson, L. Y., Metalsky, G. I., & Seligman, M. E. P. (1982). The Attributional Style Questionnaire. *Cognitive Therapy and Research*, 6, 287–299.

- Pfefferbaum, B., & Wood, P. B. (1994). Self-report study of impulsive and delinquent behavior in college students. *Journal of Adolescent Health, 15*, 295–302.
- Pickup, G. (2006). Theory of mind and its relation to schizotypy. *Cognitive Neuropsychiatry, 11*, 177–192.
- Polaschek, D. L., Collie, R. M., & Walkey, F. H. (2004). Criminal attitudes to violence: Development and preliminary validation of a scale for male prisoners. *Aggressive Behavior, 30*(6), 484–503.
- Randall, F., Corcoran, R., Day, J. C., & Bentall, R. (2003). Attention, theory of mind, and causal attributions in people with persecutory delusions: a preliminary investigation. *Cognitive Neuropsychiatry, 8*, 287–294.
- Roberti, J. W. (2004). A review of behavioral and biological correlates of sensation seeking. *Journal of Research in Personality, 38*, 256–279.
- Robins, R., & Post, J. (1997). *Political Paranoia: The Psychopolitics of Hatred*. New Haven: Yale University Press.
- Rogers, M. B., Loewenthal, K. M., Lewis, C. A., Amlôt, R., Cinnirella, M., & Ansari, H. (2007). The role of religious fundamentalism in terrorist violence: a social psychological analysis. *International Review of Psychiatry (Abingdon, England), 19*(3), 253–262. doi:10.1080/09540260701349399
- Rokeach, M. (1954). The nature and meaning of dogmatism. *Psychological Review, 61*, 194–204.
- Ross, J. I. (1993). Structural causes of oppositional political terrorism: Towards a causal model. *Journal of Peace Research, 30*, 317–329.
- Ruby, C. (2002). Are terrorists mentally deranged? *Analyses of Social Issues and Public Policy, 2*, 15–26.
- Saucier, G., Akers, L. G., Shen-Miller, S., Knezevic, G., & Stankov, L. (2009). Patterns of thinking in militant extremism. *Perspectives of Psychological Science, 4*, 256–271. doi:10.1111/j.1745-6924.2009.01123.x
- Schwartz, S. J., Dunkel, C. S., & Waterman, A. S. (2009). Terrorism: An Identity Theory Perspective. *Studies in Conflict & Terrorism, 32*(6), 537–559. doi:10.1080/10576100902888453
- Seipel, C., Rippl, S., Kindervater, A., & Lederer, G. (2012). Authoritarianism Research and the Role of Socialization. In S. Salzborn, E. Davidov, & J. Reinecke (Eds.), *Methods, Theories, and Empirical Applications in the Social Sciences* (pp. 185–191). Wiesbaden: Springer Verlag. doi:10.1007/978-3-531-18898-0
- Shedler, J., & Westen, D. (2004). Dimensions of Personality Pathology: An Alternative to the Five-Factor Model. *American Journal of Psychiatry, 161*, 1743–1754.
- Sherman, R., Nave, C. S., & Funder, D. C. (2013). Situational construal is related to personality and gender. *Journal of Research in Personality, 47*(1), 1–14. doi:10.1016/j.jrp.2012.10.008
- Silke, A. (1998). Cheshire-Cat logic: The recurring theme of terrorist abnormality in psychological research. *Psychology, Crime & Law, 4*, 51–69.
- Sire, J. W. (2004). *Naming the Elephant: Worldview as a Concept*. Downers Grove: IVP Academic.
- Skodol, A. E., Clark, L. A., Bender, D. S., Krueger, R. F., Livesley, W. J., Morey, L. C., ... Oldham, J. M. (2012). Proposed changes in personality and personality disorder assessment and diagnosis for DSM-5 Part I: Description and rationale. *Personality Disorders: Theory, Research, and Treatment, 2*(1), 4–22.
- Slovic, P. (2003). Going Beyond the Red Book: The Sociopolitics of Risk. *Human and Ecological Risk Assessment, 9*(5), 1–10.
- Stankov, L., Saucier, G., & Knežević, G. (2010). Militant extremist mind-set: Proviolence, Vile World, and Divine Power. *Psychological Assessment, 22*(1), 70.
- Stets, J. E., & Turner, J. H. (2008). The Sociology of Emotions. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of Emotions* (3rd ed., pp. 32–46). New York: Guilford Press.
- Stillman, T., & Baumeister, R. (2009). Uncertainty, Belongingness, and Four Needs for Meaning. *Psychological Inquiry, 20*, 249–251. doi:10.1080/10478400903333544
- Stillman, T. F., Baumeister, R. F., Lambert, N. M., Crescioni, A. W., DeWall, C. N., & Fincham, F. D. (2009). Alone and without purpose: Life loses meaning following social exclusion. *Journal of Experimental Social Psychology, 45*, 686–694.
- Strozier, C. & Boyd, K. (2010a). The psychology of apocalypticism. *The Journal of Psychohistory, 37*, 276–295.
- Strozier, C. & Boyd, K. (2010b). Definitions and Dualisms. In C. Strozier, D. Terman, J. Jones, & K. Boyd (Eds.), *The Fundamentalist Mindset: Psychological Perspectives on Religion, Violence, and History* (pp. 11–14). New York: Oxford University Press.
- Strozier, C. B., Terman, D., Jones, J., & Boyd, K. (Eds.) (2010). *The Fundamentalist Mindset: Psychological Perspectives on Religion, Violence, and History*. New York: Oxford University Press.
- Sykes, G. M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review, 22*(6), 664–670.
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology, 58*, 345–372.
- Taves, A., & Paloutzian, R. (2011). Religions, meaning making, and basic needs. *Religion, Brain & Behavior, 1*(3), 239–241.
- Taylor, J. L., & Kinderman, P. (2002). An analogue study of attributional complexity, theory of mind deficits and paranoia. *British Journal of Psychiatry, 93*, 137–140.
- Tedeschi, J. T., & Felson, R. B. (1994). *Violence, Aggression and Coercive Actions*. Washington, DC: American Psychological Association.
- Thompson, S. C., & Janigian, A. S. (1988). Life schemes: A framework for understanding the search for meaning. *Journal of Social and Clinical Psychology, 7*(2-3), 260–280.

R. Borum

- Van den Bos, K. (2007). Hot Cognition and Social Justice Judgments. In D. De Cremer (Ed.), *Advances in the Psychology of Justice and Affect* (pp. 59–82). Charlotte, NC: Information Age Publishing.
- Venhaus, J. M. (2010). *Why Youth Join al-Qaeda*. Special Report 236, Washington, DC: United States Institute of Peace.
- Victoroff, J. (2005). The Mind of the Terrorist: A Review and Critique of Psychological Approaches. *Journal of Conflict Resolution*, 49(1), 3–42. doi:10.1177/0022002704272040
- Walsh, Z., Swogger, M. T., & Kosson, D. (2009). Psychopathy and instrumental violence: Facet level relationships. *Journal of Personality Disorders*, 23, 416–424.
- Westen, D., Ludolph, P., Lerner, H., Ruffins, S., & Wiss, F. C. (1990). Object relations in borderline adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 29, 338–348.
- Wicklund, R. A., & Gollwitzer, P. M. (1981). Symbolic self-completion, attempted influence, and self-deprecation. *Basic and Applied Social Psychology*, 2, 89–114.
- Wicklund, R. A., & Gollwitzer, P. M. (1982) *Symbolic Self-Completion*. Hillsdale, NJ: Erlbaum.
- Williams, K. D. (2002). *Ostracism: The Power of Silence*. New York: Guilford.
- Woodworth, M., & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology*, 111, 436–445.