Terrorism and Political Violence

ISSN: 0954-6553 (Print) 1556-1836 (Online) Journal homepage: https://www.tandfonline.com/loi/ftpv20

The Radicalization of Homegrown Jihadists: A Review of Theoretical Models and Social Psychological Evidence

Michael King & Donald M. Taylor

To cite this article: Michael King & Donald M. Taylor (2011) The Radicalization of Homegrown Jihadists: A Review of Theoretical Models and Social Psychological Evidence, Terrorism and Political Violence, 23:4, 602-622, DOI: 10.1080/09546553.2011.587064

To link to this article: https://doi.org/10.1080/09546553.2011.587064

Terrorism and Political Violence, 23:602–622, 2011

ISSN: 0954-6553 print/1556-1836 online
DOI: 10.1080/09546553.2011.587064

Routledge
Taylor & Francis Group

The Radicalization of Homegrown Jihadists: A Review of Theoretical Models and Social Psychological Evidence

MICHAEL KING AND DONALD M. TAYLOR

Department of Psychology, McGill University, Montréal, Québec, Canada

This article attempts to consolidate theorizing about the radicalization of Western homegrown jihadists. Five major models of radicalization are reviewed. The commonalities and discrepancies among these models are identified and analyzed in the context of empirical evidence in the field of terrorism research and social psychology. Three psychological factors emerge as contributors to radicalization: group relative deprivation, identity conflicts, and personality characteristics. Avenues for future research concerning the radicalization of homegrown jihadists are suggested, focusing on research that may not only be practical for counter-terrorism, but also feasible given the challenges of research with radicalized individuals.

Keywords deprivation, homegrown terrorism, identity, jihadists, narratives, radicalization

> His family members describe him as being a "class clown" in that "all the teachers loved him—his jokes cheered up the class." He was the "funny guy" with "a sense of humor" who was "very animated" and "did anything to get attention."
>
> —Excerpt from the psychiatric report regarding Zakaria Amara's amenability for treatment[1]

Belying this pleasant depiction of his personality, Zakaria Amara pled guilty on October 8, 2009 to recruiting people, organizing and leading a terrorist training camp, creating a remote-control detonator, and purchasing three tons of ammonium nitrate fertilizer destined for bombing targets in Canada.[2] At some point in his life, between joking in the classroom and building a detonator, Amara underwent a transformation generally referred to as radicalization. The now widespread use of the term "radicalization" in scholarly articles, government documents, and the popular media makes

Michael King is a PhD candidate in the Department of Psychology at McGill University, where his research focuses on the psychological processes involved in radicalization and the legitimacy of terrorism. Dr. Donald M. Taylor is a professor of psychology at McGill University, specializing in intergroup relations. His research focuses on the conditions under which members of disadvantaged groups accept their situation, take individual action, or instigate collective action.

Address correspondence to Michael King, Department of Psychology, McGill University, 1205 Dr. Penfield Avenue, Montréal, Québec H3A 1B1, Canada. E-mail: michael.king@mail.mcgill.ca

it essential that this transformational process be well understood. Many theories purport to describe the exact stages involved in the radicalization process, yet paradoxically, very little empirical data exists on the psychology of those who become radicalized. The present article is a review of these theories, and the current state of empirical, social psychological research that supports them.

Scope of This Article

Radicalization as a process is not, by definition, specific to any particular national, political, religious, or ideological group. However, the term radicalization in its current form is most often used to describe a phenomenon that leads to homegrown terrorism. In contrast to transnational terrorism, where people plot to attack a foreign country, homegrown terrorism is characterized by perpetrators who are born and raised in the very country they wish to attack. Radicalization leading to homegrown terrorism has drawn much attention in the past decade, since an increasing number of terrorist acts in Western countries have been attributed to local groups, often unconnected to Al Qaeda, but very much inspired by Al Qaeda.[3] Indeed, autonomous homegrown groups were responsible for 78% of the jihadi terrorism plots in the West from 2003 to 2008.[4] These include successful plots such as the Madrid train bombings in March 2004, and the assassination of Dutch filmmaker Theo van Gogh, in addition to foiled plots as uncovered by the arrests of the "Toronto 18" in Canada, the "Vollsmose group" in Denmark, and the "Benbrika group" in Australia. Consequently, several Western security agencies now place homegrown jihadists among the top threats to their national security.[5]

The present article focuses on homegrown radicalization: the process whereby individuals are radicalized in the Western country they currently inhabit, a phenomenon mostly associated with Western Europe and North America. Accordingly, models describing radicalization that are only applicable to non-Westerners living in non-Western countries are excluded from our analysis. Because the current threat to Western countries is from terrorism stemming from Al Qaeda inspired ideology,[6] the present review will be limited to homegrown radicalization leading to terrorism perpetrated under the guise of violent jihad. Having delineated the scope of our analysis, the process of radicalization can be defined, for the purposes of the present article, as follows: the psychological transformations that occur among Western Muslims as they increasingly accept the legitimacy of terrorism in support of violent jihad against Western countries.

Purpose of This Article

The goal of the present article is to consolidate theorizing about the process of radicalization. Much has been written about this process. Within this vast literature are several full-scale models that in a coherent manner purport to describe the entire radicalization process. These few attempts at modeling radicalization tend to be isolated; that is, they make no reference to each other. The present article attempts to bring together the various stages, mechanisms, and factors referred to in these models while also drawing from the wider literature on terrorism.

We first briefly review five major models of radicalization, and then analyze their commonalities and differences. These commonalities and discrepancies are then

situated in the context of empirical evidence in the field of terrorism research and social psychology. Because radicalization involves mainly a shift in attitudes and beliefs about one's own group, and its relationship to other groups, our analysis will rely heavily on social psychological research in order to evaluate the soundness of claims included in the various models. Social psychology, the study of individuals in their social environment, may be uniquely positioned to assess and inform theories of radicalization.

In conducting this review, our intention is not to designate one particular model of radicalization as superior to the others, nor is it to propose an entirely new model. Rather than an end-point, our review should be considered a beginning. It is above all an acknowledgement of the fragmentation of theorizing about radicalization, with two underlying goals. First, we attempt to identify the major underlying themes among current models of radicalization, and to separate themes that have empirical support from those that do not. Second, we suggest avenues of future research derived from these empirically supported themes that may not only be useful for counter-terrorism strategies, but also feasible given the unique challenges of conducting research with individuals who have undergone radicalization.

Five Radicalization Models

Just as jihadists have varied throughout history, so have explanations of their radicalization.[7] Accordingly, the conception of a terrorist group has shifted. Initially a terrorist group was conceived as individuals who were foreign born, foreign trained, and covertly entering a Western country. The current conception is that of second- and third-generation immigrants, born in Western countries, who become radicalized and plan terrorism against their homeland. From inspection of the five models of radicalization reviewed next (see Table 1), this conceptual shift is evident. Although each of the five models applies to homegrown radicalization, two of these models, those by Borum and Moghaddam respectively, include factors evocative of situations in non-Western countries. The other three models, designed by Wiktorowicz, the New York Police Department, and Sageman, include factors often associated with the multicultural challenges faced by many Western countries.

Model 1: Borum's Pathway

In an FBI Law Enforcement Bulletin, Borum outlines a prototypic psychological pathway along which an individual develops an ideology that justifies terrorism.[8] Four stages are proposed. At the initial stage, "it's not right," the individual judges his or her condition to be undesirable. At the second stage, "it's not fair," the individual compares his or her condition to the more desirable conditions of others, and judges this inequality as illegitimate and unjust. Some will blame a specific other group for the illegitimate conditions of their own group; this subset of people will have reached the third stage, "it's your fault." Once an outgroup has been targeted as responsible for the illegitimate situation, this outgroup is vilified and dehumanized. At this fourth stage, people generate negative stereotypes about the outgroup, and apply these stereotypes to all outgroup members. Violence becomes legitimized as it is directed towards an evil group that is wholly responsible for all perceived injustices.

Table 1. Models of radicalization

Author	Type of model	Stages or factors
Borum 2003	Linear, progressive	1. Social and economic deprivation 2. Inequality and resentment 3. Blame and attribution 4. Stereotyping and demonizing the enemy
Wiktorowicz 2004	Linear and emergent	1. Cognitive opening 2. Religious seeking 3. Frame alignment 4. Socialization
Moghaddam 2005–2006[9]	Linear, progressive	1. Psychological interpretation of material conditions 2. Perceived options to fight unfair treatment 3. Displacement of aggression 4. Moral engagement 5. Solidification of categorical thinking 6. The terrorist act
NYPD (Silber & Bhatt) 2007	Linear	1. Pre-radicalization 2. Self-identification 3. Indoctrination 4. Jihadization
Sageman 2008	Non-linear, emergent	1. Sense of moral outrage 2. Frame used to interpret the world 3. Resonance with personal experience 4. Mobilization through networks

Model 2: Wiktorowicz's Theory of Joining Extremist Groups

Wiktorowicz outlines a specific trajectory of radicalization based on an ethnographic case study with members of the Al-Muhajiroun movement. Based in the U.K., Al-Muhajiroun is a transnational Islamist organization that promotes a worldwide Islamic revolution.[10] It has gained much notoriety because of its official intention of using military coups to restore an Islamic state wherever Muslims live, including Britain.[11] In his description, Wiktorowicz never uses the term "radicalization" per se, instead referring to four processes that lead a person to join an Islamic extremist group.[12] These four processes are denoted as: cognitive opening, religious seeking, frame alignment, and socialization.

The first stage, "cognitive opening," is often the result of a personal crisis that renders a person receptive to ideas that were likely to be discounted prior to their crisis. The crisis can be instigated by events in any domain of a person's life, such as a job loss, experiences with discrimination or victimization. According to Wiktorowicz, a crisis might also be precipitated by discussions with a member of an Islamic extremist group.

In the second stage, "religious seeking," the person's receptiveness—which began in the first stage—is directed towards religion. This religious seeking and receptiveness renders the person likely to give consideration to worldviews promoted by extremist Islamic groups. Through debate and exploration of this Islamist worldview, the individual arrives at the third stage, "frame alignment," whereby the person

regards their worldview as coinciding with his own views. For this to occur, the radicalized individual must sustain a certain deference to the religious expertise of the people promoting the Islamist worldview.

In the last stage, "socialization and joining," the individual officially joins the group, embraces the ideology, and adopts the group identity. Ideology and group identity are maintained through interactions with other members of the movement, while simultaneously retreating from mainstream society. By this stage, the group ideology has been internalized, and the individual's identity has been reformulated. Although face-to-face interactions are more potent, socialization can also occur over the Internet, via, for example, private chat rooms.[13]

Model 3: Moghaddam's Staircase to Terrorism

Moghaddam uses the metaphor of a staircase to describe the radicalization process.[14] At each of the six stages, or floors of the staircase, specific factors can potentially influence the individual towards further radicalization. As such, Moghaddam's model can be viewed as a decision-tree, where the individual's reaction to factors at each stage may or may not lead the individual to the next stage, bringing them closer to legitimizing terrorism.

At the ground floor of the staircase, Moghaddam points to feelings of deprivation as the initial factor on the path towards radicalization. Not necessarily based on objective circumstances, these feelings are the result of a subjective interpretation of the intergroup situation. People who compare their group to other groups, and perceive that their group is relatively deprived, are likely to move up the staircase.

People who experience these feelings of group-based deprivation will be motivated to improve their group's status. The subset of people who choose to fight what they perceive to be unfair treatment find themselves on the first floor of Moghaddam's staircase. At this stage, two societal factors will influence how people choose to address their group's low status: social mobility and procedural justice. If legitimate possibilities to move up the social hierarchy exist, people are less likely to engage in radical action. Additionally, if people view decision making as fair, with opportunities to participate in the decision making process—as in liberal democracies—people are less likely to radicalize. Without social mobility or procedural justice to rectify their illegitimate status, discontent leads people to the next floor.

On the second floor, discontent is channeled towards a target. Here, instead of focusing on the real causes of injustice, displacement of aggression can occur. The West, mainly the United States, is blamed for the deprivation of the group. A portion of those who readily displace their aggression might start considering radical options to counter the injustice. These people climb the staircase to the third floor. People this far along are mostly young men who, with like-minded others, begin to morally justify terrorism. Together, they share their grievances, which fulfills a need for affiliation, and radicalize each other, which leads the group towards isolation. People at this stage maximize the differences between themselves and the external enemy. This differentiation enables them to sidestep inhibitory mechanisms that are innate to humans, an evolutionary guard we have inherited to limit intraspecies killing.

Those who continue on the radicalization path reach the fourth floor, where they officially join a terrorist group. In this group, the solidification of categorical thinking

takes place; the "us vs. them," "good vs. evil" mentality is consolidated.[15] At this stage, the individual acquires a specific role in the terrorist group, such as fund-raiser, recruiter, or bomb-maker. Those who reach the fifth and last floor are those who are willing to commit a terrorist act. During this last stage, conformity and obedience are psychological motivations that facilitate violence.

Model 4: The NYPD's Radicalization Process

The Intelligence Division of the New York Police Department (NYPD) proposes a four-stage model of radicalization.[16] To develop their model, Silber and Bhatt analyzed five prominent homegrown terrorist cases in North America and Western Europe. Their model was then applied to three American homegrown terrorism cases, and two groups of extremists based in New York. In all of these cases, Silber and Bhatt report a consistent trajectory of radicalization, involving the presence of four identifiable stages.

The model's first stage of "pre-radicalization" refers to an individual's world prior to their entry into the radicalization process. Although there is no specific psychological profile that characterizes those at risk for radicalization, Silber and Bhatt point to several common traits. Radicalized individuals are likely to be young, male Muslims from middle class backgrounds and male-dominated societies. They are often educated, second or third generation immigrants, or recent converts, and are not likely to have a criminal history. These individuals are often not considered radical or even devout Muslims.

The second stage, "self-identification," is where the radicalization process begins for those with pre-disposing characteristics. The key driver at this stage is that the individual turns to Islam in response to a personal crisis. The crisis may be a specific event, such as losing a job, or the result of an ongoing situation, like discrimination or an identity crisis. This crisis challenges the individual's previously held beliefs, and Islam is sought out to manage the crisis. During this exploration of religion, the individual is inevitably exposed to radical interpretations of Islam, such as the jihadi-Salafi ideology,[17] which are easily found on the Internet, and bolstered by media reports of Western aggression in Muslim lands. As a new identity is being formed, the individual seeks out like-minded individuals. Together, these people become more religious and more extreme.

At the third stage of "indoctrination," the individual wholly accepts the jihadi-Salafi worldview and condones violence against anything un-Islamic. Their increasing religiosity is politicized; all events are construed as proof that the West is waging a war against Islam. Accordingly, the person shifts from having individualistic self-serving goals to non-personal goals focused on protecting or avenging Muslims. People at this stage often withdraw from mosques, and together with like-minded individuals, hold private meetings with radical agendas.

The last stage, "jihadization," is reached when individuals declare themselves to be "holy warriors or mujahedeen,"[18] and become committed to violent jihad. They might seek out para-military knowledge in jihadi training camps abroad. Alternatively, radicalized groups might organize training activities closer to home. Ultimately, a terrorist attack is planned: groups hold secret meetings in order to discuss practical matters, such as potential targets, dates, times, and modes of attack. They determine each member's role, survey potential targets, and obtain materials.

Model 5: Sageman's Four Prongs

In contrast to other models depicting stages that occur in a sequential order, Sageman suggests that radicalization emerges from the interplay of four factors.[19] Three of these factors can be considered cognitive, whereas the fourth is a situational factor.

One cognitive factor leading to radicalization is a sense of moral outrage, which is the result of perceiving events as moral violations. A specific example of this is the reaction to the invasion of Iraq, which intelligence agencies have concluded became the "primary recruiting vehicle for violent Islamic extremists."[20] Another cognitive factor is the frame used to interpret the world. The specific frame used by contemporary Islamist extremists is that the West is waging a "war against Islam." This idea, whereby Western countries seemingly have a united strategy to confront Islam, has been recognized by security and intelligence agencies who have labeled it the "single narrative."[21] The third cognitive factor highlighted by Sageman is a resonance with personal experience. These experiences are personal moral violations, such as discrimination or unemployment. These three cognitive factors can easily reinforce each other. Personal experiences can lead to moral outrage, and render a person sensitive to other people's discrimination. All of these, in turn, can reinforce the perception of a conspiratorial, global attack on Islam.

In addition to these cognitive factors, Sageman emphasizes the interactions of like-minded people as crucial for radicalization to occur. This last factor, labeled "mobilization through networks," involves validating and confirming one's ideas and interpretation of events with other radicalized people. To fully understand this last factor, one must consider Sageman's view that the current Al Qaeda-inspired wave of terrorism should be regarded as a social movement, not as a coherent strategy directed by a hierarchical organization.[22] Mobilization, it must be noted, can occur through virtual networks—like the Internet—as easily as it can in person.

Other Models and Explanations

The five models chosen for review were not the only explanations of radicalization found in the literature. Certain explanations have been excluded from our review as they did not present specific *models* of radicalization, but rather explain terrorism at a higher, more general level of analysis. For example, Taylor and Horgan depict the processes underlying terrorist involvement using three broad categories of variables.[23] First are "setting events" which refer to influences stemming from an individual's past, second are "personal factors" which are the individual's specific context, and third is the broader "social/political/organizational context." Kruglanski and Fishman also offer an analysis of the psychology underlying terrorism, with a host of factors at the individual, group, and organizational levels.[24] Finally, McCauley and Moskalenko describe twelve possible mechanisms of radicalization operating at the individual, group, and mass levels.[25] Such broad explanations no doubt capture more realistically the complexity of radicalization; however these explanations were too general to directly compare with the more defined models reviewed above.

Commonalities

Among the models presented by Borum, Wiktorowicz, Moghaddam, the NYPD, and Sageman, descriptions of the radicalization process are wide-ranging both in structure

and content. Taken independently, each model offers a valuable conceptualization of the radicalization experience. Taken together, however, certain commonalities emerge. These commonalities indicate where a consensus seemingly exists among terrorism experts regarding which factors are deemed important contributors to radicalization.

First and foremost, the models converge on the assumption that radicalization is a transformation based on social-psychological processes. All five models describe emotions, cognitions, and social influences that, when operating in the right order and combination, can lead someone to endorse and engage in terrorism. To be precise, Wiktorowicz's model stops short of predicting actual terrorism, with an endpoint of joining an extremist group, but nevertheless portrays a radicalization process equivalent in other models. Among the many commonalities, the two psychological factors that recur most often will be examined next. These are relative deprivation and an identity crisis.

Relative Deprivation

As relative deprivation is a factor often cited and debated in the terrorism literature,[26] it is no surprise to have it play an important role in these models. Borum and Moghaddam place relative deprivation at the initial stages of the radicalization process. In both models, people experience feelings of relative deprivation by comparing their material conditions to that of other groups, and viewing their group's disadvantage as an injustice. Although not explicitly stated, these feelings of relative deprivation are also incorporated into other models. Relative deprivation is implicit in Sageman's third factor of "resonance with personal experience," whereby moral outrage is confirmed by viewing injustices perpetrated against one's group, or through personal experience, such as discrimination or unemployment. Such feelings of relative deprivation can also lead an individual to question his "certainty in previously accepted beliefs," which in turn precipitates the cognitive opening described in the first stage of Wiktorowicz's model.[27]

The concept of relative deprivation originated, ironically, from a survey of attitudes among U.S. military personnel during the Second World War.[28] The researchers used relative deprivation to explain, among other findings, the perplexing discontentment among certain troops. At the time of the survey, many more promotions were awarded in the air force than within military police. Yet on the survey, more air force personnel complained about the lack of promotions as compared to military police. The researchers attributed the greater discontent to the salience of promotions within the air force: for those who did not get promoted, the many promotions were a constant reminder of their lack of advancement. The key to understanding troops' morale, then, was not the objective quality of their circumstances, but rather their circumstances relative to their chosen target of social comparison.

Personal deprivation was then applied to a group context, and thereafter discontent with personal circumstances—personal relative deprivation—was distinguished from discontent arising from comparing the circumstances of one's group—or group relative deprivation.[29] This distinction was a major theoretical development, and has led to important nuances. For instance, personal relative deprivation has been linked to more inward-oriented emotions, such as decreased self-esteem, delinquency, and depression, whereas group-based relative deprivation has been found to be a stronger predictor of collective action and prejudice toward other groups.[30]

Despite its presence in many models, there has been substantial debate about relative deprivation as a factor for radicalization.[31] The main point of contention lies in its poor predictive power regarding terrorism. Using demographic data to sustain their argument, many highlight that those who are radicalized to the point of engaging in terrorism do not appear relatively deprived; in fact, most come from the middle-class.[32] This observation is not specific to terrorism though, and echoes the main criticism levied against relative deprivation theory and its prediction of any type of collective action. That is, the vast majority of people who potentially experience relative deprivation do not engage in collective action, while those who do engage in collective action do not appear to be necessarily deprived.[33] Although these criticisms make it tempting to dismiss relative deprivation as a factor in the radicalization process, key specifications of the theory should be revisited first.

The experience of relative deprivation is subjective: it results from social comparisons, not from an objective analysis of the situation.[34] It is the *perception* of deprivation, and not *actual* deprivation that will motivate a person to action. Thus, referring to terrorists' socio-economic status to either confirm or discount the presence of relative deprivation can be misleading because it disregards the psychological dimension of relative deprivation. People can in actual fact be advantaged while experiencing group-based relative deprivation.[35] Conversely, people can be comparatively disadvantaged without experiencing their inequality as deprivation.[36] Thus, to the extent that relative deprivation is considered a subjective psychological state, independent of the person's socio-economic status, it should not be discounted as a factor for radicalization.

Rather, findings in social psychological research place relative deprivation as a likely contributor to radicalization. This is anchored in the robust findings across dozens of empirical studies that group-based feelings of injustice reliably predict collective action.[37] However, two specifications must be highlighted here. First, it is the emotions elicited by the injustice—not only the cognitive awareness of the injustice—that predict collective action. Second, it is group-based relative deprivation, as opposed to personal deprivation, that predicts collective action.[38]

Upon generalizing these findings from research on collective action to the study of terrorism, the empirical support should be sufficient for experts to reconsider relative deprivation as a factor in radicalization. The most likely contributor is the affective component of group—as opposed to personal—relative deprivation. Unfortunately, many discussions of radicalization do not include these nuances. For example, discrimination, which is often cited in accounts of people's radicalization, can be construed as personal deprivation when comparing oneself to other people who are fairly treated. However, discrimination can also be interpreted as group deprivation when focusing on other group members' similar mistreatment.

Criticizing these theories for not pinpointing the type of deprivation might be unfair, however, as relative deprivation researchers have not yet been able to predict how and when, nor to what other person or group, comparisons will be made. Indeed, "predicting whom members of a group will select for purposes of comparison, and under what circumstances, remains a fundamental issue for relative deprivation."[39] Although this ambiguity has yet to be resolved, considering group relative deprivation and its emotional component as factors for radicalization seems a fruitful course for future research concerning the psychological transformations undergone by homegrown jihadists.

Identity-Related Issues

For three of the models we reviewed, those of the NYPD, Wiktorowicz, and Sageman, the crux of the radicalization process involves some form of personal crisis. This crisis is often described as relating to the management of one's identity, a claim echoed by other researchers. For instance, Choudhury asserts that the path to radicalization often involves an identity crisis, dissatisfaction with old answers and belief systems, and the striving for new ones.[40] As homegrown terrorist plots since 2002 have involved mostly second and third generation immigrants and converts to Islam,[41] linking identity issues to radicalization makes intuitive sense. Not only do second and third generation immigrants face discrimination based on their identities, but they also must manage a mainstream Western identity with their heritage identity, to arrive at some internalized and coherent identity. Social psychological research regarding these three identity-related issues—discrimination, integration, and identity management—will be examined next.

On the face of it, experiencing discrimination would seem to be an obvious radicalizing factor. However, research has revealed that people are willing to endure very high levels of discrimination before mobilizing for collective action.[42] Although *absolute* discrimination, where virtually every single group member is affected by unfair treatment, can motivate people to mobilize, such extreme levels are rarely found in Western countries. Where there is anything less than absolute discrimination, in step with the levels appearing in most radicalization models, group members tend to avoid collective action. The reason for this inaction centers on those who share the same identity, but who are not victims of discrimination. If discrimination is anything less than absolute, those who are perceived to be treated fairly—even if few in number—help maintain the myth that justice and equality prevails in the social system.[43]

Closely related to discrimination, another common factor in radicalization models is the lack of integration into mainstream society.[44] There is plenty of anecdotal evidence supporting the role of such a factor in radicalization, and there is as much anecdotal evidence to suggest otherwise.[45] Empirical findings present an equally unclear picture. Completely embracing a Western identity, such as promoted by the American "melting pot" metaphor, has been championed by some as an inoculation against radicalization.[46] Yet this assimilationist strategy might run counter to our fundamental psychological needs. Findings in psychological research reveal that people want a fine balance between being part of the mainstream and being distinctive, between assimilation and individuation.[47] This distinctiveness is considered to be a psychological need, and people actively protect the distinctiveness of their identity when they feel it is threatened. For example, emphasizing similarities between groups—thereby decreasing distinctiveness—has been shown to actually increase negative biases between these groups.[48] Thus, it remains unclear if lack of integration should be considered a factor for radicalization.

Rather than discrimination or lack of integration, some researchers have suggested that radicalization may stem from a burden shared by many children of immigrants: managing a dual identity.[49] Although second and third generation immigrants are a diverse group, they do share the common experience of managing a Western identity with an ethnic identity inherited from their family.[50] For some, managing these two identities can be especially difficult, leading to overwhelming uncertainty, and quite possibly the "crisis" referred to in the radicalization models.

According to Aly, for individuals who have faced such a crisis, ''Islam becomes as much an identity movement as it becomes a traditional faith,'' engendering a faith and lifestyle that becomes ''more politicized.''[51] When faced with such uncertainty, social psychological research has determined that two levels of response begin to operate. At the individual level, people have been found to react to uncertainty by hardening their attitudes and increasing their convictions.[52] At the group level, the simple act of joining a well-defined group has been shown to reduce uncertainty.[53] These two responses, attitude hardening and joining groups, seem to be fundamental aspects of the radicalization process.

Identity crises, as compared to other identity-related issues, are probably significant catalysts in the radicalization process. An obvious but important caveat must be highlighted here. Although we have drawn on empirical support for this claim, the reality is that innumerable people experience identity-related crises yet do not radicalize. Thus, future research will need to determine what other factors interact with identity crises to yield radicalization.

Discrepancies

Despite their commonalities, the five models of radicalization we reviewed do diverge significantly from one another. Most noticeably, the format of the radicalization process differs: the models propose different numbers of discrete stages. More fundamentally, however, some authors portray radicalization as emerging from the combination of specific factors, while others portray it as a linear progressive process with identifiable stages. Besides these differences in format, the factors within radicalization models also vary. For example, the role of religion during people's radicalization is present in some models but not others. Beyond the models reviewed in the present article, countless additional discrepancies about the factors and processes involved during radicalization can be found in scholarly discussions about terrorism. Instead of enumerating all of these, we will focus on two key discrepancies. First, the diverging hypotheses about the role of established extremist organizations during the radicalization process will be discussed. Second, a more fundamental discrepancy about the role of individual characteristics in the radicalization process will be examined.

The Role of Extremist Organizations and Virtual Networks

Models of radicalization portray extremist organizations as having one of two roles: either being active during a person's radicalization, or being passively uninvolved. The models proposed by Wiktorowicz and Moghaddam discuss the event of joining such a group—often described as an established terrorist organization—during radicalization. From this perspective, extremist organizations play an active role in the radicalization process. They are external entities, waiting on the sidelines for the opportunity to ''convince seekers that the movement ideology provides logical solutions to pressing concerns.''[54] These organizations push individuals along the radicalization process, where ''recruits to terrorist groups are selected with considerable care and are assimilated into groups gradually.''[55]

From the other perspective, established extremist organizations have a passive role in the radicalization process. The models of the NYPD and Sageman portray terrorist cells as emerging from clusters of radicalized individuals who seek out like-minded people, unconnected to formal organizations. This portrayal of terrorist

cell development has been coined the "bunch of guys" explanation.[56] From this perspective, established extremist organizations sometimes play a role during the radicalization journey, but it is not for membership. Rather, formal organizations are mostly sought out for training and, in some cases, the notoriety of affiliation.

These differing roles conferred to extremist organizations are epitomized in the terrorism literature in what has become known as the Hoffman-Sageman debate.[57] In this debate, Hoffman argues the Al Qaeda organization still constitutes the West's most important threat, as it has survived America's "war on terror" while maintaining operational and strategic control over many people who conduct attacks in its name.[58] Sageman, conversely, argues that the threat posed by Al Qaeda lies in the social movement it has inspired; the organization itself is less relevant to the radicalization process.[59]

Although anecdotal evidence may be found to support both sides of the debate, most published data supports the notion that extremist organizations increasingly play a passive role in the radicalization process of Western jihadists. Since 2003, most homegrown jihadi cells in Europe have developed and operated independently from extremist organizations.[60] Cruickshank estimated that, of the 21 serious terrorism plots between 2004 and 2009 in the West, 12 (57%) were completely autonomous, without direction from established foreign jihadi organizations.[61] Crone and Harrow have determined that, compared to previous cohorts, jihadists active between 2004 to 2008 trained abroad less, fought jihad abroad less, and had less attachments to international organizations.[62] These statistics, however, should not lead us to minimize the threat posed by extremist organizations. Although not actively involved in the radicalization process, these organizations provide ongoing training, inspiration, and ideological justification. Most likely, established organizations do not radicalize people, but rather make the already dangerous autonomous groups even more effective.

Concluding that established organizations play a passive role is not to refute that homegrown jihadists still experience important group dynamics during their radicalization. These dynamics are cornerstones of most radicalization models. For example, in the last stages of their models, Wiktorowicz and Sageman highlight interpersonal relationships and group interactions as facilitating radicalization. Somehow replacing established organizations in this capacity, however, is the Internet. Especially through web forums, the Internet mirrors at least three important functions otherwise fulfilled by established organizations. First, it provides ideological support for people who may not find it elsewhere. Through websites and chat rooms, people can not only consume the jihadi narrative, but also contribute to the discourse.[63] Second, the Internet offers networking opportunities. The Internet enables individuals to find and interact with like-minded individuals, and mobilize towards carrying out an actual attack.[64] Third, the Internet supplies information and educational materials. A recent example, easily found on the Internet in the magazine *Inspire*, published by the Al Qaeda Organization in the Arabian Peninsula, is the featured article, "Make a Bomb in the Kitchen of Your Mom."[65]

Because of all these functions, the Internet has been deemed by some as the "virtual incubator" of radicalization.[66] Although the Internet facilitates group dynamics, it remains unclear exactly how the Internet contributes to the radicalization process per se. In theory, jihadi websites may radicalize some, yet it is also conceivable that these websites have no causal effect. Perhaps it is prior radicalization that leads an individual to search for extremist websites, and not the reverse. Also confusing

matters is the fact that, despite an abundance of online information regarding bomb-making and other terror-craft, many homegrown jihadists still seek out the "real experience" of training with extremist outfits in the Afghanistan-Pakistan border region, or with Al Qaeda franchises in Iraq, Somalia, and Yemen.[67] Despite these ambiguities, the Internet is consistently utilized by homegrown jihadists during their radicalization. Its role needs to be better understood.

The Person and the Situation

Among the various descriptions of radicalization reviewed in the five models, there exists a small discrepancy that, nevertheless, deserves serious attention. The models presented by Borum, Moghaddam, and Wiktorowicz all emphasize situational factors that shape the individual's thinking, which ultimately leads to radicalization. Silber and Bhatt, however, specify in the NYPD model certain "demographic, social, and psychological factors that make the individuals more vulnerable to the radical message."[68] Sageman also suggests that personality traits may predispose some people, especially men, towards the path of jihad.[69] Thus, the models of the NYPD and Sageman designate individual characteristics as predisposing factors for radicalization, whereas other models do not, and attribute the entire process to situational forces. This discrepancy is not exclusive to theories of radicalization, but reflects an enduring debate in psychology as a whole between those who attribute all human behavior to situational factors, those who attribute behavior to personality traits, and others who propose it is a combination of the two.[70]

Initial theorizing in the psychology of terrorism focused solely on personality factors, and portrayed terrorists as—while not necessarily mentally ill—having deep-rooted psychological problems.[71] This conception has since been discounted, and now most experts agree that those who engage in terrorism are "normal" and a specific profile of violent extremists does not exist.[72] These conclusions are anchored in clinical assessments and demographic information about people who have engaged in terrorism. Without discounting this evidence, the historical context of these conclusions merits consideration, as current notions about terrorist profiles are somewhat of a backlash against earlier theories. Whereas previously researchers were biased towards personality characteristics to explain terrorism, the current emphasis on "normalcy" may have resulted in a new bias. That is, current theorizing emphasizes situational factors as the primary—and in some cases the exclusive—drivers of radicalization. Of course, situations undoubtedly play a role. However, individual characteristics are significant determinants of how people respond to situations.[73] Much evidence exists in the psychological literature to support the importance of both individual characteristics and situational factors in shaping people's behavior. To argue for the importance of both, a famous social psychological experiment, Zimbardo's Stanford Prison Experiment, will be reviewed.

In the Stanford Prison Experiment, researchers re-created a prison situation with 21 men who answered a newspaper ad promising financial compensation for a two-week study of prison life.[74] Half of the participants were randomly assigned to the role of guard, and the other half were assigned to the role of prisoner. Once the experiment began, participants quickly adopted their roles, and within a few days, the guards became cruel and authoritarian, while the prisoners became docile and submissive. The guards became so abusive, in fact, that the experiment was terminated before its scheduled end date.

The experiment impressively demonstrated the power of the situation: normal men can become brutally violent when placed in a particular situation. Personality traits were thought to play a negligible role in explaining the violent behavior of the guards, as participants were randomly assigned their roles. This marked a shift in the social sciences whereby most researchers have since attributed violent behaviors and atrocities to situational factors.[75]

The Stanford Prison Experiment has been revisited, however, to review if personality traits may have been discounted too easily. In a follow-up study, researchers recruited people using the same advertisement as in Zimbardo's 1971 experiment. In addition to the original version of the ad, another version that omitted "prison life" as the purpose of the study was used. People who responded to either ad were then administered a battery of psychological tests, and important personality differences were found between respondents.[76] People who answered the "prison life" ad scored higher on psychological scales of aggression, narcissism, and social dominance orientation, the latter being a measure of an individual's preference for hierarchy within a social system. Such personality characteristics may help explain why participants readily engaged in aggressive behavior when given a role where aggression was acceptable.

Although these findings do not diminish the importance of the situation, they highlight the fact that personality traits can predispose a person to seek out and experience certain situations. It is somewhat surprising that such characteristics receive so little attention in models of radicalization, as there is an increasing amount of evidence that many homegrown jihadists share similar traits. Radicalized individuals are generally identified as young (i.e., late teens to mid-thirties) and male.[77] They are often second- or third-generation Muslims or recent converts, and appear to have a lack of religious literacy. Many of them appear to be sensation seekers, as they are seemingly seduced by the trendy and adventurous dimension of jihad.[78] Momin Khawaja, a Canadian found guilty of financing and facilitating terrorism, exemplifies these traits when he described himself as "I'm just a wanna-be gung-ho Islamic."[79]

Clearly, personality characteristics deserve greater attention in research on radicalization. Indeed, personality traits would explain why so many people experience the factors described in the various models of radicalization, yet only a fraction of people radicalize. Personality differences might also explain why only certain people initiate the radicalization journey in the first place. Hence, we encourage experts to revisit disregarded assumptions about personality characteristics in terrorism research, as the most plausible model for radicalization would be one that considers an interaction between personality traits and situational factors.

Discussion

Considering the discrepancies and the commonalities among the five models, and the lack of empirical research verifying the factors and processes within these models, no one model can be distinguished as being more accurate than any other. This conclusion does not only apply to the models reviewed in this article, but can be generalized to most descriptions of radicalization in the broader field of terrorism studies.

Nevertheless, the recurring themes among the models reviewed, coupled with the extant empirical evidence, suggests that the greatest insights into the psychology of radicalization might stem from further research on three factors: personality characteristics, identity management, and feelings of group-based relative deprivation.

Here, we refrain from offering a new model based on these factors, as doing so would undermine a critical issue highlighted throughout this article: theoretical modeling without empirical evidence remains speculative. Rather than offering a new model, our goal is to stimulate empirically-based research, while acknowledging that psychologists' understanding of the radicalization process is very limited.

Differentiating the Known From the Theorized

Unfortunately, these limitations have not been properly communicated. The claims made by theorists have entered government and public discourses on terrorism in the West, and the factors and processes involved have acquired an air of certainty. In a commentary on discussions of radicalization in the British media, Hoskins and O'Loughlin observe that,

> ... The term radicalization has become part of the rhetorical structure of the waging of the 'War on Terror' without any reflexive interrogation of its distinctiveness, genealogy or function, in describing a 'root cause' of terrorist activities which thus requires a policy and/or tactical response (i.e., 'de-radicalisation'). Such clustering affords a false certainty to media reporting and commentary.[80]

Highlighting an incomplete understanding of radicalization is not meant to discourage theorizing. Theorizing is the bedrock of science: it should continue in order to promote dialogue among researchers and provide hypotheses for testing. Rather, we seek to encourage an appreciation of the limits of the stated knowledge about radicalization.

Acknowledging these limitations is especially significant for policy makers. Basing counter-terrorism or counter-radicalization strategies on models that have not been empirically validated can be misleading and risky. Consider the consequences of basing a strategy on the assumption that poverty causes radicalization, in a context where radicalization truly stemmed from sensation seeking. Such strategic decisions would not address the causes. Here, another cautionary note is warranted: a better understanding of radicalization might not necessarily inform counter- or de-radicalization strategies. As Horgan has aptly pointed out, the reasons for engaging in terrorism may differ from subsequent reasons for disengaging from terrorism.[81]

The field of terrorism research has already used data to verify, and in some cases refute, theoretical assumptions. For example, where early psychological theorizing treated terrorism as a product of psychopathology, empirical verification through clinical assessments later challenged this assumption.[82] Subsequently, when poverty was thought to be a root cause of terrorism, demographic data on jihadists worldwide revealed that those engaged in terrorism were often from the middle-class.[83] Such empirically-based developments have advanced the field of terrorism research, but methodological improvements are still needed. Future investigations will need to be more systematic, and include not only radicalized individuals, but also valid comparison groups. Consequently, empirical verification of the existing assumptions surrounding the process leading up to terrorism should take precedence over additional theorizing.

An Example for Empirical Verification

Multi-stage models of radicalization are practically impossible to test empirically. One challenge is to verify if a person undergoes all stages in a specific model, while a particularly thorny methodological challenge would be confirming the sequential aspect of the stages. While models cannot be tested in their entirety, individual stages or factors can. One such factor amenable to research, for instance, is the narrative promoted by jihadists.

The narrative propagated by the Al Qaeda movement and many jihadi groups states that Islam is under threat. The essence of the narrative depicts Islam as being under attack by the United States, Israel, and their allies.[84] This is a well-defined message often purported to have influenced people involved in terrorism.[85] In the NYPD model, this narrative is an important factor in the indoctrination stage, where the individual construes events as proof that the West is waging a war against Islam. Sageman also refers to this narrative as the "interpretive framework," one of the four prongs in his proposed model of radicalization.

Compared to many other factors contained in radicalization models, this narrative is quite amenable to empirical research. The narrative is simple to experimentally manipulate while investigating, for example, how it increases the legitimacy of terrorism. Research can be conducted to identify what elements in the narrative are persuasive, what audiences are more receptive to its message, and if identity management issues play a role in people's agreement with the narrative. Furthermore, research on the narrative promoted by the jihadi groups can directly inform counter-terrorism and counter-radicalization strategists. Counter-narratives could be constructed based on research findings. For counter-terrorism strategists, factors such as this narrative should be at the top of research agendas, as it is more manageable to contend with a narrative than many other factors, such as relative deprivation, discrimination, and foreign policy, which are diffuse and require long-term solutions.

Conclusion and Future Directions

Various psychological transformations are thought to occur within individuals as they increasingly accept the legitimacy of terrorism. These transformations are generally referred to as radicalization. The present article reviewed five major models of homegrown jihadi radicalization. Independently, each model has contributed important theorizing to the field of terrorism research. When brought together, however, the commonalities and discrepancies between these models offered even greater insights, which may be used as a guiding framework for future research concerning homegrown jihadi radicalization.

Based on the commonalities and discrepancies that emerged during this review, our research recommendations focus on three factors that are likely contributors to the radicalization process. The first factor involves the affective reactions to group relative deprivation. The major research challenge here will be to understand how groups or individuals are selected when people make comparisons. The second factor is the management of identities. Here, the major research challenge will be to understand psychological conflicts between an inherited identity and a mainstream identity, and how such identity crises interact with other factors discussed throughout this article. The third factor involves personality characteristics. Only a minute number of people amongst countless others exposed to similar conditions become radicalized. Certain idiosyncratic predispositions may help explain why.

In addition to these three factors, we also propose two additional research foci that emerge from the current context of homegrown jihadi terrorism: the Internet and the single narrative. The Internet has featured one way or another in each homegrown jihadi terrorist plot since 2002. Researchers have just started to exploit this platform to investigate the processes involved in radicalization.[86] In addition to content analysis of jihadi websites, discussion forums can be used as a gateway to reach homegrown jihadists. Provided the researcher can convincingly navigate this sub-culture, such as Brachman has done, empirical data from radicalized people could conceivably be collected.[87] Of course, this is no simple task. One must be extremely familiar with jihadi speak to access, relate to, and exchange on the bona fide forums where radicalized people communicate.

The jihadi narrative is the second research foci to emerge from our review. Emphasizing that Islam is under threat, this narrative is considered to have influenced those involved in terrorist plots against the West. As a factor that is amenable to experimental methods traditionally used in social psychological investigations, research on the narrative can potentially inform counter-radicalization strategies.

There are understandable practical challenges in studying radicalization. Most researchers acknowledge that it is a difficult process to trace, and radicalized people are not always approachable for interviewing. Despite these challenges, it must be recognized that some researchers do collect such primary source data in the field[88]; yet this is nowhere near enough. Academic researchers, however, need not be alone in answering this call for additional data. Research could be facilitated by those who undoubtedly possess the most data about radicalization: security agencies. To complement their internally produced research, security agencies might consider granting academic researchers access to classified information collected on radicalized individuals. Conceivably, selected researchers could be screened for security clearances, while data can be coded not only to ensure the confidentiality of the people being studied, but also to conceal the methods used to gather the data.

A collaborative investigation of the psychological basis of radicalization, including how psychological changes correspond to the more observable changes described in the literature, must continue. Although independent theories offer valuable contributions, it appears as though a comprehensive effort to verify our understanding of radicalization, using empirical verification as a standard, might be more beneficial to the current state of knowledge concerning the transformative processes that precede acts of terrorism. A shared and unambiguous understanding is essential to the success of counterterrorism strategies.

Notes

1. *Psychiatric Report Regarding the Amenability to Treatment* (Toronto: October 27, 2009). The provider of this document has requested that the psychiarist who authored the report not be named.

2. Isabel Teotonio, ''Fear, Bungling, Death: He Never Had a Chance,'' *Toronto Star* (October 9, 2009): A1.

3. Marc Sageman, *Leaderless Jihad: Terror Networks in the Twenty-First Century* (Philadelphia: University of Pennsylvania Press, 2008).

4. Marc Sageman, ''Confronting Al-Qaeda: Understanding the Threat in Afghanistan,'' *Perspectives on Terrorism* 3, no. 4 (2009): 4–25.

5. For example: Ministry of the Interior and Kingdom Relations, *Violent Jihad in the Netherlands: Current Trends in the Islamist Terrorist Threat* (The Hague: General Intelligence and Security Service, 2006).

6. Robin Simcox, Hannah Stuart, and Houriya Ahmed, *Islamist Terrorism: The British Connections* (London: The Centre for Social Cohesion, 2010).

7. Eric Price and Alex P. Schmid, "Selected Literature on Radicalization and De-radicalization from Terrorism Monographs, Edited Volumes, Grey Literature and Prime Articles published since 1970," *Perpectives on Terrorism 4*, no. 2 (2010): 58–76.

8. Randy Borum, "Understanding the Terrorist Mindset," *FBI Law Enforcement Bulletin* (July 2003): 7–10.

9. Fathali M. Moghaddam first described his model in an article: "The Staircase to Terrorism: A Psychological Exploration," *American Psychologist* 60, no. 2 (2005): 161–169. A more detailed description, with slight differences, was later outlined in a book: *From the Terrorists' Point of View: What They Experience and Why They Come to Destroy* (Westport, CT: Preager Security International, 2006). The titles for each stage in Moghaddam's model, and the summary we present, attempt to reflect both descriptions.

10. Kylie Connor, " 'Islamism' in the West? The Life-Span of the Al-Muhajiroun in the United Kingdom," *Journal of Muslim Minority Affairs* 25, no. 1 (2005): 117–133.

11. Quintan Wiktorowicz, *Radical Islam Rising: Muslim Extremism in the West* (Oxford: Rowman & Littlefield, 2005), 77–78.

12. Quintan Wiktorowicz, "Joining the Cause: Al-Muhajiroun and Radical Islam," paper presented at *The Roots of Islamic Radicalism Conference* (Yale University, May 2004).

13. Alejandro J. Beutel, *Radicalization and Homegrown Terrorism in Western Muslim Communities: Lessons Learned for America* (Bethesda, MD: Minaret of Freedom Institute, 2007).

14. Moghaddam, "The Staircase to Terrorism" (see note 8 above).

15. Moghaddam, *From the Terrorists' Point of View* (see note 8 above), p. 111.

16. Mitchell D. Silber and Arvin Bhatt, *Radicalization in the West: The Homegrown Threat* (New York: NYPD Intelligence Division, 2007).

17. Jihadism is an ideology, whereas Salafism a puritanical strain of Islam. For discussion of the relationship between these two, see: Joas Wagemakers, "Framing the Threat to Islam: Al-Wala' Wa Al-Bara' in Salafi Discourse," *Arab Studies Quarterly* 30, no. 4 (2008): 1–22; Jarret Brachman, *Global Jihadism: Theory and Practice* (New York: Routledge, 2008).

18. Silber and Bhatt (see note 16 above), 43.

19. Marc Sageman, "A Strategy for Fighting International Islamist Terrorists," *Annals of the American Academy of Political and Social Science* 618, no. 1 (2008): 223–231.

20. Karen DeYoung, "Spy Agencies Say Iraq War Hurting U.S. Terror Fight," *The Washington Post* (24 Sept. 2006): A1.

21. Royal Canadian Mounted Police, *Radicalization: A Guide for the Perplexed* (Ottawa: RCMP National Security Criminal Investigations, 2009).

22. Sageman, *Leaderless Jihad* (see note 3 above).

23. Max Taylor and John Horgan, "A Conceptual Framework for Addressing Psychological Process in the Development of the Terrorist," *Terrorism and Political Violence* 18, no. 4 (2006): 585–601.

24. Arie W. Kruglanski and Shira Fishman, "Psychological factors in terrorism and counterterrorism: Individual, group, and organizational levels of analysis," *Social Issues and Policy Review* 3, no. 1 (2009): 1–44.

25. Clark McCauley and Sophia Moskalenko, "Mechanisms of Political Radicalization: Pathways Toward Terrorism," *Terrorism and Political Violence* 20, no. 3 (2008): 415–433.

26. Paul K. Davis and Kim Cragin, *Social Science for Counterterrorism: Putting the Pieces Together* (Santa Monica, CA: RAND Corporation, 2009).

27. Wiktorowicz, "Joining the Cause" (see note 12 above), 7.

28. Samuel A. Stouffer, Edward A. Suchman, Leland C. DeVinney, Shirley A. Star, and Robin M. Williams, Jr., *The American Soldier: Adjustment During Army Life: Studies in Social Psychology in World War II, Vol. 1* (Princeton, NJ: Princeton University Press, 1949).

29. Walter Runciman, *Relative Deprivation and Social Justice* (New York: Penguin, 1966).

30. Heather J. Smith and Daniel J. Ortiz, "Is It Just Me? The Different Consequences of Personal and Group Relative Deprivation," in Iain Walker and Heather J. Smith (eds.), *Relative Deprivation: Specification, Development, and Integration* (Cambridge: Cambridge University Press, 2002), 91–115; Thomas F. Pettigrew et al., "Relative Deprivation and Intergroup Prejudice," *Journal of Social Issues* 64, no. 2 (2008): 385–401.

31. Davis and Cragin (see note 26 above).

32. Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania Press, 2004); Andrew Silke, "Holy Warriors: Exploring the Psychological Processes of Jihadi Radicalization," *European Journal of Criminology* 5, no. 1 (2008): 99–123.

33. Walker and Smith, *Relative Deprivation* (see note 30 above).

34. John T. Jost and Aaron C. Kay, "Social Justice: History, Theory, and Research," in Susan T. Fiske, Daniel T. Gilbert, and Gardner Lindzey (eds.), *Handbook of Social Psychology* (Hoboken, NJ: John Wiley & Sons, 2010).

35. Colin Wayne Leach, Aarti Iyer, and Anne Pedersen, "Angry Opposition to Government Redress: When the Structurally Advantaged Perceive Themselves as Relatively Deprived," *British Journal of Social Psychology* 46, no. 1 (2007): 191–204.

36. John T. Jost and Mahzarin R. Banaji, "The Role of Stereotyping in System-Justification and the Production of False Consciousness," *British Journal of Social Psychology* 33, no. 1 (1994): 1–27.

37. Martijn van Zomeren, Tom Postmes, and Russell Spears, "Toward an Integrative Social Identity Model of Collective Action: A Quantitative Research Synthesis of Three Socio-Psychological Perspectives," *Psychological Bulletin* 134, no. 4 (2008): 504–535.

38. Smith and Ortiz (see note 30 above).

39. Donald M. Taylor and Fathali M. Moghaddam, *Theories of Intergroup Relations: International Social Psychological Perspectives* (Wesport, CT: Praeger, 1994), 135.

40. Tufyal Choudhury, *The Role of Muslim Identity Politics in Radicalisation: A Study in Progress* (London: Department for Communities and Local Government, 2007).

41. Silber and Bhatt (see note 16 above).

42. Stephen C. Wright, Donald M. Taylor, and Fathali M. Moghaddam, "Responding to Membership in a Disadvantaged Group: From Acceptance to Collective Protest," *Journal of Personality and Social Psychology* 58, no. 6 (1990): 994–1003.

43. Stephen C. Wright, "Restricted Intergroup Boundaries: Tokenism, Ambiguity, and the Tolerance of Injustice," in John T. Jost and Brenda Major (eds.), *The Psychology of Legitimacy: Emerging Perspectives on Ideology, Justice, and Intergroup Relations* (New York: Cambridge University Press, 2001), 223–254.

44. Brian M. Jenkins, "Building an Army of Believers: Jihadist Radicalization and Recruitment," *Testimony presented before the House Homeland Security Committee, Subcommittee on Intelligence, Information Sharing and Terrorism Risk Assessment* (Santa Monica, CA: RAND Corporation, April 2007); Silber and Bhatt (see note 16 above).

45. For example, see Aidan Kirby, "The London Bombers as 'Self-Starters': A Case Study in Indigenous Radicalization and the Emergence of Autonomous Cliques," *Studies in Conflict & Terrorism* 30, no. 5 (2007): 415–428; Shamit Saggar, "Boomerangs and Slingshots: Radical Islamism and Counter-Terrorism Strategy," *Journal of Ethnic and Migration Studies* 35, no. 3 (2009): 381–402.

46. Marc Sageman, *Leaderless Jihad* (see note 3 above), 98.

47. Marilynn B. Brewer, "The Social Self: On Being the Same and Different at the Same Time," *Personality and Social Psychology Bulletin* 17, no. 5 (1991): 475–482.

48. John F. Dovidio, Samuel L. Gaertner, and Ana Validzic, "Intergroup Bias: Status, Differentiation, and a Common Ingroup Identity," *Journal of Personality and Social Psychology* 75, no. 1 (1998): 109–120.

49. Mirella L. Stroink, "Processes and Preconditions Underlying Terrorism in Second-Generation Immigrants," *Peace and Conflict: Journal of Peace Psychology* 13, no. 3 (2007): 293–312.

50. Benjamin Giguère, Richard N. Lalonde, and Evelina Lou, "Living at the Crossroads of Cultural Worlds: The Experience of Normative Conflicts by Second Generation Youths," *Social and Personality Psychology Compass* 4, no. 1 (2010): 14–29.

51. Waleed Aly, *Liquid Terror: The Dynamics of Homegrown Radicalisation* (Sydney: Lowy Institute for International Policy, 2007), 6.

52. Ian McGregor, Mark P. Zanna, John G. Holmes, and Steven J. Spencer, "Compensatory Conviction in the Face of Personal Uncertainty: Going to Extremes and Being Oneself," *Journal of Personality and Social Psychology* 80, no. 3 (2001): 472–488.

53. Michael A. Hogg, "Subjective Uncertainty Reduction through Self-Categorization: A Motivational Theory of Social Identity Processes," *European Review of Social Psychology* 11, no. 1 (2000): 223–255.

54. Wiktorowicz, "Joining the Cause" (see note 12 above), 9.
55. Moghaddam, *From the Terrorists' Point of View* (see note 8 above), 116.
56. Sageman, *Leaderless Jihad* (see note 3 above), 69.
57. Elaine Sciolino and Eric Schmitt, "A not very private feud over terrorism," *New York Times* (June 8, 2008): 1.
58. Bruce Hoffman, "The myth of grass-roots terrorism: Why Osama bin Laden still matters," *Foreign Affairs* (May/June 2008): 133.
59. Sageman, *Leaderless Jihad* (see note 3 above).
60. Minister of Justice, *Policy Memorandum on Radicalism and Radicalisation* (Amsterdam: Directorate of General Judicial Strategy: Aug. 2005).
61. Paul Cruickshank, *The Militant Pipeline: Between the Afghanistan-Pakistan Border Region and the West* (New York: New America Foundation, Feb. 2010). The author defined as "serious" all plots that were either successful or, if unsuccessful, posed a capable threat of killing at least 10 people.
62. Manni Crone and Martin Harrow, "Homegrown terrorism in the West, 1989–2008," *DIIS Working Paper* 2010:30 (Copenhagen: Danish Institute for International Studies, 2010).
63. Shane Drennan and Andrew Black, "Jihad Online: The Changing Role of the Internet," *Jane's Intelligence Review* (Aug. 2007).
64. Choudhury (see note 40 above); Kirby (see note 45 above).
65. The AQ Chef, "Make a Bomb in the Kitchen of your Mom," *Inspire* 1 (2010): 33–40.
66. Silber and Bhatt (see note 16 above).
67. Cruickshank (see note 61 above); Stewart Bell, "Ottawa Outlaws Somali Group; Al-Shabab recruiting Canadian youths, minister says," *National Post* (March 17, 2010): A1; Carrie Johnson, "Man Held in Bomb Attempt said to be Cooperating," *The Washington Post* (Feb. 3, 2010): A03.
68. Silber and Bhatt (see note 16 above), 22.
69. Sageman, *Leaderless Jihad* (see note 3 above).
70. David C. Funder, *The Personality Puzzle* (New York: W. W. Norton, 1997).
71. For example: Gustav Morf, *Le Terrorisme Québécois* (Montréal: Éditions de l'homme, 1970).
72. Andrew Silke, "Cheshire-Cat Logic: The Recurring Theme of Terrorist Abnormality in Psychological Research," *Psychology, Crime & Law* 4, no. 1 (1998): 51–69; John Horgan, *The Psychology of Terrorism* (New York: Routledge, 2005). Arie W. Kruglanski and Shira Fishman, "The Psychology of Terrorism: 'Syndrome' Versus 'Tool' Perspectives," *Terrorism and Political Violence* 18, no. 2 (2006): 193–215.
73. Funder (see note 70 above).
74. Craig Haney, Curtis Banks, and Philip Zimbardo, "Interpersonal Dynamics in a Simulated Prison," *International Journal of Criminology and Penology* 1, no. 1 (1973): 69–97.
75. Leonard Berkowitz, "Evil Is More Than Banal: Situationism and the Concept of Evil," *Personality and Social Psychology Review* 3, no. 3 (1999): 246–253.
76. Thomas Carnahan and Sam McFarland, "Revisiting the Stanford Prison Experiment: Could Participant Self-Selection Have Led to the Cruelty?," *Personality and Social Psychology Bulletin* 33, no. 5 (2007): 603–614.
77. Sageman, *Leaderless Jihad* (see note 3 above); Silber and Bhatt (see note 16 above); Royal Canadian Mounted Police (see note 21 above).
78. Silke, "Holy Warriors" (see note 32 above); Scott Atran, "Who Becomes a Terrorist Today?," *Perspectives on Terrorism* 2, no. 5 (2008); Jamie Bartlett, Jonathan Birdwell, and Michael King, *The Edge of Violence: A Radical Approach to Extremism* (London: Demos, 2010).
79. Ontario Superior Court of Justice, "Her Majesty the Queen vs. Mohammad Momin Khawaja," Court File No. 04-G30282 (Oct. 29, 2008), 16.
80. Andrew Hoskins and Ben O'Loughlin, "Pre-Mediating Guilt: Radicalization and Mediality in British News," *Critical Studies on Terrorism* 2, no. 1 (2009): 82.
81. John Horgan, "Deradicalization or disengagement," *Perspectives on Terrorism* 2, no. 4 (2008): 3–8.
82. Ken Heskin, "The Psychology of Terrorism in Ireland," in Yonah Alexander and Alan O'Day (eds.), *Terrorism in Ireland* (New York: St Martin's Press, 1984), 88–105.
83. Sageman, *Understanding Terror Networks* (see note 32 above).

84. Brynjar Lia, "Al-Qaida's Appeal: Understanding Its Unique Selling Points," *Perspectives on Terrorism* 2, no. 8 (2008): 3–4; Wagemakers, "Framing the Threat to Islam" (see note 17 above).

85. For example, see Royal Canadian Mounted Police (see note 21 above).

86. Maura Conway and Lisa McInerney, "Jihadi Video and Auto-radicalisation: Evidence from an Exploratory YouTube Study," in Daniel Ortiz-Arroyo et al. (eds.), *Intelligence and Security Informatics* (Berlin: Springer Verlag, 2008): 108–118.

87. Jarret Brachman, "Watching the Watchers," *Foreign Policy* 182 (Nov 2010): 60.

88. For example, see Bartlett, Birdwell, and King (see note 78 above); John Horgan, *Walking Away from Terrorism* (New York: Routledge, 2009). Ariel Merari et al., "Personality Characteristics of 'Self Martyrs'/'Suicide Bombers' and Organizers of Suicide Attacks," *Terrorism and Political Violence* 22, no. 1 (2010) 87–101; Jerrold M. Post, Ehud Sprinzak, and Laurita Denny, "The Terrorists in Their Own Words: Interviews with 35 Incarcerated Middle Eastern Terrorists," *Terrorism and Political Violence* 15, no. 1 (2003): 171–184.