

ASSESSING AGAINST AND MOVING PAST THE “FUNNEL” MODEL OF COUNTERTERRORISM COMMUNICATION

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Many countries have embarked on a wide range of efforts designed to diminish extremist violence. One prominent category of such activities is counterterrorism communication, which includes various forms of engagement focused on diminishing the appeal of violent extremist ideology and disrupting paths to radicalization, with the ultimate goal of reducing support for, and incidence of, terrorist violence.¹ In the past decade, terrorists and acts of terrorism have proliferated. Through numerous forms of media, terrorists are embracing new opportunities to spread the psychological impact of terrorism throughout the world, to provoke outrage, and to rally supporters and recruits. Terrorism today involves not only violence, but also theatre, where attention is paid to script preparation, sets, props, role-playing, minute-by-minute stage management, and flashy YouTube videos.² To respond to this evolving reality, counterterrorism communication adds nuance to the traditional, or kinetic, approach of detaining and killing terrorists to thwart their efforts. In addition to detaining, killing, and physically constraining their ability to arrive at and attack targets, mixed approaches also seek to limit terrorists' access to conventional mass media, reduce and censor news coverage of terrorist acts and their perpetrators, and minimize the terrorists' capacity for and the effects of media manipulation.³

The transition from a kinetic to mixed approach should be applauded. A mixed approach defends against active terrorists, while also acting to diminish the creation of new terrorists and diminishing the notoriety or other benefits they gain from publicizing their acts. For example, The Islamic State in Iraq and Syria, otherwise

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1 See, for example, the discussion in Alex P. Schmid, 'Radicalisation, de-Radicalisation, counter-radicalisation: A Conceptual Discussion and Literature Review', International Centre for Counter-Terrorism – The Hague (2013).

2 Gabriel Weimann, and Katharina Von Knop, 'Applying the notion of noise to countering online terrorism', *Studies in Conflict & Terrorism* 31 (2008), 883-902.

3 Ibid.

known as ISIS or Daesh, uses every available media channel to recruit fighters, intimidate enemies, and promote its claim to have established a caliphate.⁴ To date, dozens of Twitter accounts spread the group's messages, in addition to YouTube videos, JustPaste (to publish battle summaries), SoundCloud (to release audio reports), and other mobile applications like Instagram and WhatsApp (to spread graphics and videos).⁵ Effective responses to this diverse media arsenal can target radicalized group attitudes, beliefs, norms, or social identities to move whole groups or particular subgroups onto less violent paths.⁶ Persuasive appeals can be delivered through interpersonal channels (e.g. via covert infiltrators) or through media and direct communication with group members. Even if these efforts fail to affect a group as a whole, deepening internal disputes can create discussion and debate over how violence will be used.

Counterterrorism communication also holds the promise of reaching individuals prior to radicalization. Interrupting the terrorists' recruiting efforts and seeking to affect the characteristics that make some individuals vulnerable to radicalization or recruitment has the potential to slow or stop this process.⁷ While many models of radicalization exist, most suggest several stages where individuals move from pre-radicalization, to radicalization, to mobilization (i.e. committing themselves to violence).⁸ Counterterrorism communication aimed at individuals in these intermediate stages could, for example, work to diminish the credibility of terrorist group leaders, document manipulative strategies used by groups in recruiting, and discredit violent action as an effective means of instituting change.

Although these efforts are laudable in intent, questions remain about how well they are working. Given that we don't currently have much of an answer to that question,⁹ how could we know how well such efforts are working, and how might better assessment help us adjust, improve, and refocus these efforts? This article reiterates the

4 The New York Times, 30 Aug. 2014.

5 Ibid.

6 Justin Reedy, John Gastil, and Michael Gabbay, 'Terrorism and small groups: An analytical framework for group disruption', *Small group Research* 44 (2013), 599-626.

7 Numerous scholars and observers have advocated for such a transition; see for example: Victor G. Garcia, Jr, *Strategic influence: A framework to counter violent extremist ideology*. (Carlisle Barracks, PA, 2013).; Michael Pizzuto, *Alter-messaging: The credible, sustainable counterterrorism strategy* (Goshen, IN, 2013) in Centre on Global Counterterrorism Cooperation Online http://globalcenter.org/wp-content/uploads/2013/05/2013May2_Pizzuto_Final1.pdf; or Daniel P. Aldrich, 'First steps towards hearts and minds? USAID's countering violent extremism policies in Africa', *Terrorism and Political Violence* 26 (2014), 523-54.

8 Michael King, and Donald M. Taylor, 'The Radicalization of Homegrown Jihadists: A Review of Theoretical Models and Social Psychological Evidence', *Terrorism and Political Violence* 23 (2011), 602-622.

9 See, for example, John Horgan and Kurt Braddock, 'Rehabilitating the terrorists?: Challenges in assessing the effectiveness of de-radicalization programs', *Terrorism and Political Violence* 22 (2010), 267-291.; and Peter Romaniuk and Naureen Chowdhury Fink, *From input to impact: Evaluating terrorism prevention programs*. (Centre on Global Counterterrorism Cooperation, 2012).

importance of evaluating and assessing counterterrorism communication, discusses the utility of the ‘funnel’ model common in counterterrorism communication, offers criticism of the funnel model, asserts the importance of a clear theory of change to conducting evaluation in this area, and provides directions for using theory and evaluation in future counterterrorism communication.

The ‘Funnel’ Model for Counterterrorism Communication

A not-uncommon implicit model for counterterrorism communication is what we’ll call the ‘funnel’ model.¹⁰ The funnel model, depicted in Figure 1, divides the potential audience¹¹ into four (or more) nested segments. The largest is the general population, which is neither radicalized, nor mobilized. Below this is the segment of that larger population that is also neither radicalized nor mobilized but is ‘vulnerable’ to radicalization. Below this is the segment of the vulnerable population that has actually been radicalized, though still not mobilized. The last segment is the very small proportion of any population that is both radicalized and mobilized to actively support or commit acts of terrorism (the output of the funnel).

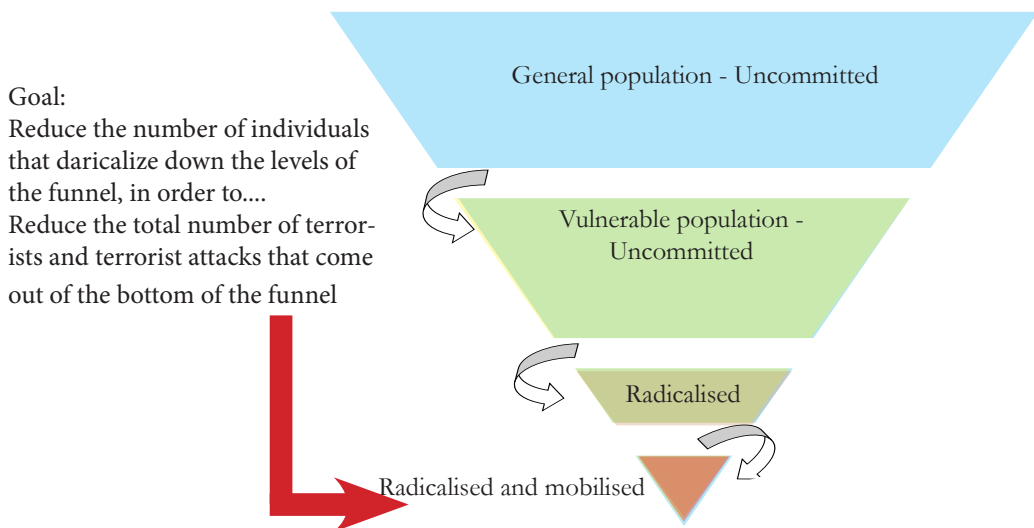


Figure 1 The ‘Funnel’ Model Implicit in Counterterrorism Communication Efforts

10 Many European counter-radicalization efforts include general preventative initiatives that assume the funnel model: see James Brandon and Lorenzo Vidino, *European experiences in counterradicalization* (West Point, NY, 2013) In Combating Terrorism Center at West Point Online <https://www.ctc.usma.edu/posts/european-experiences-in-counterradicalization>; Another example of the funnel model is implicit in the model used in Victor G. Garcia, Jr, ‘Strategic influence: A framework to counter violent extremist ideology’, *Army War College* (2013); An explicit funnel (same shape, similar progression) appears in Figure 1 of Stevan Weine, ‘Building resilience to violent extremism in Muslim diaspora communities in the United States’, *Dynamics of Asymmetric Conflict: Pathways Toward Terrorism and Genocide* 5 (2012), 60-73.

11 This article draws from interdisciplinary works, and thus relies on descriptions of populations using terms including: audiences, groups, publics, and stakeholders. In order to retain authenticity to various approaches terminology from sources was preserved.

The funnel model is similar to audience segmentation frameworks typical in public relations, organizational communication, and public health. In public relations, Grunig's situational theory of publics is highly regarded and well tested. Grunig's theory differentiates between latent, aware, and active publics.¹² Latent publics have low problem recognition, but their level of involvement could still be moderate to high. Communication can be particularly important for latent groups who are ready to change their attitude(s) or behaviour(s) once they realize a problem. Individuals in the aware category recognize a problem, but are less likely to engage in activities to solve the problem due to high constraint recognition. Active publics have low constraint recognition, and high problem recognition and involvement suggesting they engage in seeking and sharing information about a problem.

Following a similar funnel or pyramid, organizational communication scholars segment audiences into 'stakeholder' groups, where groups may be organized into categories of those who have formal power to make changes (e.g. a powerful job and money), others who can block change, those are affected by change, and finally individuals who are needed to facilitate and carry out change.¹³ Using this perspective, the first step to reaching stakeholders is to identify concerns harboured by each group, followed by their expected position on a proposition or proposed change.

To address public health issues, a population in question is segmented according to groups who exhibit symptoms of certain attitudes and behaviours. For example, at a broad level (i.e. the largest population), would be a group where some detrimental behaviours, like a nutrient poor diet, will be present in some members, but it is difficult to tell who exactly is at risk.¹⁴ Level two constitutes vulnerable subgroups believed to have higher risks of poor nutrition. Level three would be comprised of individuals exhibiting attitudes and behaviours consistent with poor nutrition, but who have not yet changed their attitudes or behaviours. Using this approach, intervention strategies targeted to level one members are low in intensity and generalized while level three members need tailored messaging to persuade them to take action to locate and cook more healthful foods.

Using a segmentation strategy is a common approach in counterterrorism communication, although it may not be explicitly acknowledged in campaign materials. According to this implicit theory, the goal of counterterrorism communication is ultimately to reduce the number of individuals who radicalize from each layer further

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12 James E. Grunig, 'Sierra club study shows who become activists', *Public Relations Review* 15 (1989), 3-24.

13 David Straus, *How to Make Collaboration Work*, (San Francisco, 2002).

14 Stevan Weine, 'Building resilience to violent extremism in Muslim diaspora communities in the United States', in *Dynamics of Asymmetric Conflict: Pathways Toward Terrorism and Genocide* 5 (2012), 60-73.

‘down’ the funnel, thus reducing the total number of terror supporters and attacks that come out at the bottom of the funnel. The full extent of the funnel model’s use is difficult to quantify. Current counterterrorism efforts are a mixed bag of those that do not share their theoretical underpinnings, use variations of this model, use the model under a different name, or simply use an atheoretical approach that happens to resemble this process. However, the authors have encountered a sufficient number of efforts either explicitly or implicitly using this or a similar model to be concerned.

Problems with the Funnel Model

The funnel model assumes that segmentation between groups is possible. However, proper segmentation requires enough information, backed by research, to accurately sort individuals into radicalization levels. Estimates made without explicit description and systematic procedures can result in program implementation failure (e.g. preparing tested and appealing campaign messages, but they are received by the wrong group). Selecting indicators for each population group is not clear-cut, which can result in misclassification in the funnel. However, for the model to work populations should be similar with respect to variables (and value measurements) determining the attitudes and behaviours targeted by counterterrorism communication.¹⁵

Aside from classifying population members into a homogenous group, which is necessary for segmentation, this approach also assumes that reducing the size of a vulnerable segment or layer would subsequently reduce the size of the segment below in the future. This could also be called the ‘epidemiological’ assumption, an assumption often implicit when counterterrorism thinking builds from a public health mind set, applying the same sorts of approaches that help reduce a population’s vulnerability to the spread of diseases.¹⁶ However, there is no good reason to accept this assumption. Radicalization is not sufficiently well understood, but is unlikely to follow logics similar to those for the spread of infectious diseases.

A counterterrorism communication effort could reduce the size of a given segment, but individuals within that segment could have some critical difference that makes them both more likely to radicalize and less likely to be deterred by the influence

15 Michael D. Slater, ‘Theory and method in health audience segmentation’, *Journal of Health Communication* 1 (1996), 267-283.

16 Morris W. Foster, and Jesse W. Butler, ‘Cancer, HIV, and Terrorism: Translating public health models for prevention and control to counter-terrorism’, *Routledge* 1 (2008), 81-94. The article makes exactly this assumption at the outset, but then goes on to recommend further research on the ‘translational pipeline’ for terrorism and other forms of formative research about the processes of becoming a terrorist in line with what I recommend here.; Stevan Weine, ‘Building resilience to violent extremism in Muslim diaspora communities in the United States’, *Dynamics of Asymmetric Conflict: Pathways Toward Terrorism and Genocide* 5 (2012), 60-73. also suggests drawing on public health models that have proven successful in combating drug abuse, drunk driving, pandemic flu, or HIV/AIDS for developing counterterrorism programs.

effort. For example, an effort might reduce the ‘vulnerable’ segment by 50% but find that the same number of individuals continue to radicalize, because the individuals in the vulnerable segment that were most amenable to the counter radicalization message were the ones who were least likely to radicalize because they were actually part of some different but not recognized segment.¹⁷

A related challenge concerns the relative proportions of the population in each segment. The widest parts of the funnel consists of the general population and the ‘vulnerable’ segment, with proportionately few ‘radicalized’ and very, very few ‘radicalized and mobilized’ individuals. Understanding this relatively *rare occurrence* (being both radicalized and mobilized) requires a different mind-set and different analytical approaches.¹⁸ It may also require different approaches to influence if there is indeed a correlation between general levels of radicalization in a population and the levels of mobilization to actively support or conduct terrorist activity. If these assumptions are flawed, it is entirely possible that efforts targeted at segments in the wider portions of the funnel might be effective at affecting attitudes and behaviours in that segment, without having any impact at all on the output at the bottom of the funnel.

A consistent critique of segmentation efforts like the funnel model is that the amount of research needed to construct a data-driven set of segments is expensive and time consuming.¹⁹ Additionally, although the benefit to a context-specific enumeration is added precision, the more localized or geographically bounded a model is, the less transferrable it is between regions, countries, and local communities. Researchers have conducted large-scale data collection efforts, fuelled by national probability samples, to strategically segment selected populations, but this is the gold standard rather than the norm.

Finally, observations also suggest communication directed by similar models are often situated outside the prevue of other relevant behaviour change theories. Both public health and health communication efforts rely on a variety of theories to drive

17 Peter S. Henne, Jonathan Kennedy, John P. Sawyer, and Gary A. Ackerman, ‘Leveraging advances in qualitative methodology to analyze radicalization’ in Hriar, Cabayan, Valerie Sitterle, and Matt Yandura (eds.), *Looking back, looking forward: Perspectives on terrorism and responses to it*, (Washington, D.C., 2013) pp. 104-113, note some of the challenges in studying radicalization and counterradicalization and offer some promising methodological suggestions for better foundation research in this area.

18 Anthony Richards, ‘The problem with “radicalization”: The remit of “prevent” and the need to refocus on terrorism in the UK’, *International Affairs* 87 (2011), 143-152. Richards persuasively argues for reduced focus on preventing radicalization and increased focus on preventing actually becoming a terrorist; regarding statistics for rare events, see Gary King and Langche Zeng, ‘Logistic regression in rare events data’, *Political Analysis* 9 (2001), 137-163.

19 Michael D. Slater, ‘Theory and method in health audience segmentation’, *Journal of Health Communication* 1 (1996), 267-283.

change in attitudes and behaviours about myriad issues including alcohol or tobacco consumption interventions to persuading women to receive annual mammograms or pap smears from their doctors. Counterterrorism communication efforts should also integrate elements from behaviour change theories to improve campaign strategies. Theories from existing research suggest mechanisms for segmenting audiences, and provide guidance on how to tailor messages to best persuade different audiences. Not drawing on additional theory diminishes the potential of the funnel model, and ultimately the goal of reducing radicalized and mobilized individuals.

The Importance of a Theory of Change

A theory of change is the underlying logic for how campaign designers believe that their intervention will lead to desired results. A theory of change can include logic, assumptions, beliefs, or findings from previous experiences. The theory of change implicit in the funnel model is that interventions targeted at each of the segment layers reduces the number of individuals who move down the radicalization and mobilization funnel, ultimately reducing the number of terrorist supporters or recruits who come out the bottom of the funnel.

The main benefit of articulating a theory of change is that it allows assumptions to be turned into hypotheses.²⁰ These hypotheses can then be tested explicitly as part of an assessment process, with any failed hypotheses replaced in subsequent efforts until a validated, logical chain connects activities with objectives and objectives are met. So, if a counterterrorism communication campaign uses the funnel model and explicitly states the theory of change, it opens itself to validation (or criticism). Clearly stating the theory of change implies clear predictions, which can then be targeted for observation or measurement. If everything works as predicted, well and good, the theory of change is validated. If, however, something doesn't work as predicted, it provides an opportunity to revise the theory or the implementation until it does work.

Theories of change are specific to specific programs, but can and should draw on broader theory in the social and behavioural sciences. The existing literature on attitudinal and behaviour change offers numerous theories. Changing attitudes and behaviours requires communication interventions delivered to the right audience at the right time. Theory guided approaches bolster communication efforts by guiding practitioners to the types of variables that are most likely to elicit change. Theories can help direct and structure the ultimate goal of an intervention, its target population(s),

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 20 Christopher Paul, 'Foundations for assessment: The hierarchy of evaluation and the importance of articulating a theory of change', *IOSphere* 9 (2013), 1-7.

message content, and timing among other options. Change may target an activity, program, line of effort, or operation. The communication literature offers many theories that are relevant to public communication campaigns, including agenda setting,²¹ diffusion of innovations,²² the elaboration likelihood model (ELM),²³ the extended parallel process model,²⁴ the health belief model,²⁵ an integrative theory of behaviour change,²⁶ message framing,²⁷ social cognitive theory,²⁸ theory of planned behaviour,²⁹ and the transtheoretical model.³⁰

Counterterrorism communication research draws on some available theory, but still lacks breadth and depth. For example, message framing and social network analysis are common approaches in available literature.³¹ Social network analysis is helpful for identifying core members of terrorist groups, how groups are connected, and how groups change. Framing studies catalogue public narrative about terrorism and describe how messages are packaged to audiences. However, these studies lack insight into audience processing of messages including mental comprehension, interpretive perceptions, cognitive connection, and emotional reactions. Additional theories including the health belief model, theory of planned behaviour, and/or social cognitive theory could all be applied to future counterterrorism communication efforts. Whatever the underlying foundation of theory, each program or campaign should have its own explicit theory of change for how its communication or other interventions will lead to desired outcomes.

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- 21 Maxwell McCombs, *Setting the agenda: The mass media and public opinion* (Malden, MA, 2004).
 - 22 Everett M. Rogers, *Diffusion of Innovations*, 5th edition. (New York, NY, 2003).
 - 23 Richard Petty, and John T. Cacioppo, *Communication and persuasion: Central and peripheral routes to attitude change*. (New York, 1986).
 - 24 Kim Witte, 'Fear control and danger control: A test of the extended parallel process model', *Communication Monographs* 61 (1994), 113-134.
 - 25 Marshall H. Becker, *The health belief model and personal health behavior*. (San Francisco, 1974).
 - 26 Martin Fishbein, and Marco C. Yzer, 'Using theory to design effective health behavior interventions', *Communication Theory* 13 (2003), 164-183.
 - 27 Robert M. Entman, and Andrew Rojecki, 'Freezing out the public: Elite and media framing of the U.S. anti-nuclear movement', *Political Communication* 10 (1993), 155-173.
 - 28 Albert Bandura, *Social foundations of thought and action: A social cognitive theory*. (Englewood Cliffs, NJ, 1986).
 - 29 Icek Zjzen, 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes* 50 (1991), 179-211.
 - 30 James O. Prochaska, and Wayne F. Velicer, 'The transtheoretical model of health behavior change', *American Journal of Health Promotion* 12 (1997), 38-48.
 - 31 Julei Fu, Duoyong Sun, Jian Chai, Jin Xiao, and Shouyang Wang, 'The "six-element" analysis method for the research on the characteristics of terrorist activities', *Annals Of Operations Research* 234 (2013), 17-35;
- Scott Helfstein, and Dominick Wright, 'Covert or convenient? Evolution of terror attack networks', *Journal of Conflict Resolution* 55 (2011), 785-813.; Stephen D. Reese, 'The framing project: A bridging model for media research revisited', *Journal of Communication* 57 (2007), 148-154.

The Value of Assessment

Assessment or evaluation is fundamentally a judgment of merit against criteria or standards.³² But for what purpose? To what end do we make these judgments of merit? When everything about a program or activity is working exactly as planned, assessment does little beyond confirming success. Where something about the program's execution, assumptions, or outcomes is not working as intended is where assessment proves its value. Not only can well designed assessment help those responsible for an effort recognize that there is a problem, it can help them diagnose what is causing the problem (be it a mistaken assumption, an execution failure, or something else), and help them identify how to fix that problem going forward.

Across a wide range of sectors including defence, industry, and academic evaluation research, assessment objectives appear to align with one or more of three broad goals: to improve planning, to improve effectiveness and efficiency, or to enforce accountability. These three broad motivations for assessment) roughly correspond to three primary types of evaluation: formative, process, and summative.

Formative evaluation occurs primarily during the planning stage, prior to the execution of an effort or intervention, and includes activities designed to develop and test messages, determine baseline values, analyse audience and network characteristics, and specify the logic by which program activities are designed to generate influence, including barriers to attitudinal and behavioural change. Formative evaluation can be used to prepare for interventions targeted to any population in the funnel. Formative efforts tend to employ qualitative research methods, including focus groups, interviews, and ethnographic observations. Formative efforts should guide intervention strategy prior to launching communication to targeted groups. For example, qualitative inquiries into terrorism narratives available in public media can provide initial understanding of how populations make sense of violence and terrorist groups.

Process evaluation determines whether a program has been or is being implemented as designed, assesses output measures (such as reach and exposure), and provides feedback to program implementers to inform course adjustments. Constant monitoring during counterterrorism communication will allow for corrections in real time and meet emerging needs among populations. Process evaluation could, for example, assess the extent to which campaign messages are actually communicated and reaching intended audiences. Another common arm of messaging for the general

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 32 Peter H. Rossi, Mark W. Lipsey, and Howard E. Freeman, *Evaluation: A systematic approach*. (Thousand Oaks, CA, 2004).

population could be delivering reliable and accurate information about extremism, conflict, and diaspora challenges, which may not otherwise be available in highly censored environments.³³

Summative evaluation, including ‘outcome’ and ‘impact’ evaluation, is the post-intervention analysis to determine whether the program achieved its desired outcomes or impact. Usually summative evaluations include comparisons of quantitative data collected prior to and post intervention efforts. Summative evaluations could be conducted for several or all funnel populations, from a broad objective of creating awareness of a problem (the general population) to changing attitudes and behaviours about violence (most important for the radicalized and radicalized/mobilized populations). Quantitative summative evaluation is the most powerful way of measuring campaign success, and can provide valuable insight to the total amount of attitudinal or behaviour changes demonstrated in a population.

A common critique of communication campaigns is that they fail to produce a significant impact on target audiences. However, such campaigns have been shown to produce short-term campaign effects of about .09, which roughly translates into 9% more people performing the behaviour after the campaign than before.³⁴ When campaigns specifically discuss enforcement strategies (i.e. if you inform people that there will be checks on their behaviour and penalties for noncompliance) the effects sizes can jump to 17%.³⁵ The fact that many campaigns do not show any change in target audiences could be the result of poor assessment, rather than true null findings. Without a clear theory of change and evaluation parameters in place (including a baseline measure), there is no means to observe campaign effectiveness or improve efforts in the future. For example, overall campaign failure may point to a need to change message frames or diversify communication channels, depending on where the proposed theory of change was observed to break down.

All three stages of evaluation are valuable to counterterrorism communication. Beginning with an assessment of effectiveness, identified weaknesses can point to further assessment efforts oriented toward improvement and efficiency, which can then guide future planning. Additionally, various levels of evaluation can also attest to the success of theoretical specification and program implementation.³⁶

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33 Stevan Weine, ‘Building resilience to violent extremism in Muslim diaspora communities in the United States’, *Dynamics of Asymmetric Conflict: Pathways Toward Terrorism and Genocide* 5 (2012), 60-73.

34 Leslie B. Snyder, and Mark A. Hamilton, ‘A meta analysis of U.S. health campaign effects on behavior: Emphasize enforcement, exposure, and new Information, and beware the secular trend’ in Robert C. Hornik (ed.), *Public health communication: Evidence for behavior change*, (New York, 2002), pp. 357-383.

35 Ibid.

36 Carol Weiss, *Evaluation research: Methods of assessing program effectiveness*. (Englewood Cliffs, NJ: 1972).

Weiss posited that there are three scenarios that can unfold during a communication campaign. The first is that a successful program produces a causal process specified by a theory that yields a predicted and desired outcome. Secondly, a theory might fail but the communication implementation may prove to be successful (identified by the process stage of evaluation). In this case, modifications to the theory would be made. Lastly, poor implementation would not allow for any theoretical evaluation due to the intervention not working as intended and not beginning the process of a causal sequence.³⁷ Process evaluation and summative evaluation are required to make assumptions about theoretical specification and program implementation.

Conducting Assessment Under the Funnel Model

Testing the theory of change implicit in the funnel model or conducting assessment under its assumptions is potentially problematic. Some of the desired outcomes of influence efforts under this model are counterfactual: preventing those who might have radicalized and mobilized from doing so. It is easy to point to all of the members of a population who do not move down the funnel and assert success. Radicalization and mobilization are relatively rare events, however, so the vast majority of a population does not radicalize and mobilize, and there is no easy way to identify the much smaller segment that (counterfactually) might have done so. Unlike the public health environment where researchers can rely on population level data (e.g. prevalence and incidence) to track health outcomes following communication efforts over time, radicalization is not measurable in a similar fashion.

The uncertainty inherent in the funnel model begs for more and better formative research, such as improved target audience analysis and a thorough exploration of the paths to (and away from) radicalization and mobilization.³⁸ Nonetheless, there are several possibilities for assessment of movement between populations. One option is to articulate a narrower theory of change, one focused on a smaller segment, or on a smaller part of the problem, like demobilization or deradicalization. Although the connection between radicalization/mobilization and actual acts of terrorism is a safer assumption, it is also useful to measure those who once were mobilized or radicalized and are no longer. Research that begins with a well-identified population is also a helpful starting point for future researchers studying transition processes of populations.

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37 Ibid.

38 Of course, we are not alone in this call for better understanding of processes of radicalization and mobilization to terrorist violence. See, for example, Peter Romaniuk and Naureen Chowdhury Fink, *From input to impact: Evaluating terrorism prevention programs*. (Centre on Global Counterterrorism Cooperation, 2012) and John M. Venhaus, 'Looking for a fight: Why youth join Al-Qaeda and how to prevent it', (Carlisle Barracks, PA, 2010) in the U.S. Army War College Online <http://www.usip.org/sites/default/files/SR236Venhaus.pdf>.

Another possible approach would be to attempt to validate the assumptions implicit in this theory of change. This might involve measuring impacts on attitudes at higher levels of the funnel and outcomes at the bottom of the funnel (terrorist recruitment, funding, and acts), showing correlations over time. This would also require greater explication of the model's theoretical underpinnings. Additional insight is necessary to determine which behavioural theories work best in the context of counterterrorism communication.

For example, the theory of planned behaviour (TPB) uses the independent variables of attitudes toward the behaviour, subjective norms, and perceived behavioural control account for considerable variance in actual behaviour.³⁹ Another alternative is social cognitive theory, which looks to source role models, explicitly demonstrated behaviours, and the representation of vicarious reinforcement to enhance the impact of mediated messages.⁴⁰ Using theory validated elsewhere as a starting point during the formative research and evaluation process can help identify promising variables for consideration. Pilot testing, focus groups, or other forms of limited-scale pilot testing can be used to refine the variables to be targeted and the specific communication or other interventions implemented to change those variables.

For an example of a good start to that sort of process see Daniel Aldrich's preliminary evaluation of the effectiveness of USAID's efforts in parts of Mali.⁴¹ Aldrich discusses a mixed segmentation approach using demographics, socioeconomic, political, and cultural inputs. His evaluation shows altered civic behaviour and listening patterns in exposed audiences compared to unexposed audiences, but no significant differences in attitudes toward violence or the west, nor anything actually connected to violent behaviour. Still, this is a good first step in using evaluation to show the effectiveness (or lack in effectiveness) of programs of this kind. Aldrich's contribution is also particularly important for testing these assumptions in an applied setting. Unfortunately, much of the research in this area is not facilitated in applied contexts, minimizing ecological validity.

Attending to both the immediate needs of transitioning between populations in the model and using behavioural theory to influence the segmentation process, future assessment should focus on measuring outcomes of counterterrorism communication longitudinally. Collecting baseline data allows for future comparisons following a communication intervention. Many shifts in attitudes and behaviours can occur

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39 Icek Ajzen, 'The Theory of Planned Behavior', *Organizational Behavior and Human Decision Processes* 50 (1991), 179-211.

40 Albert Bandura, *Social Foundations of Thought and Action*, (Englewood Cliffs, NJ, 1986).

41 Daniel P. Aldrich, 'First steps towards hearts and minds? USAID's countering violent extremism policies in Africa', *Terrorism and Political Violence* 26 (2014), 523-546.

marginally, over an extended period of time. Finally, longitudinal data are helpful for measuring slippage between populations and/or ascertaining maintenance over time. Even though counterterrorism communication may protect or improve attitudes and behaviours in the short term, population members continuously consume and process new information.

Moving Forward

As counterterrorism efforts shift from kinetic to mixed approaches, further research and evaluation is needed to document impact on the bottom line. Counterterrorism communication programs may provide a useful tool for reaching populations in various phases along the radicalization trajectory. Decades of public health and health communication research show that tailored communication is a tested means of achieving behavioural change.⁴² As counterterrorism efforts turn to psychological, communication, and educational solutions, rigorous theory and evaluation of efforts are needed to demonstrate success. The prevalence of the funnel model in current counterterrorism communication despite its possible shortcomings emphasizes this need.

Evaluation is essential to support counterterrorism communication planning, improving communication effectiveness and efficiency, and enforcing accountability.⁴³ Evaluation also ensures that theoretical specification and program implementation are operating as expected. Every counterterrorism communication effort, according to whatever assumptions or approaches, should be explicit about its objectives and theory of change and then should assess results against theory, making adjustments as needed, discarding mistaken assumptions, as well as helping others avoid poor assumptions in the future.⁴⁴ The assessment process should also touch on the formative, process, and summative evaluation stages.

This is important, because there are those who are sceptical of the potential effectiveness of strategic communication for counter-terrorism, and would like to see

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42 Refer to Seth M. Noar, Christina N. Benac, and Melissa S. Harris, 'Does tailoring matter? Meta-analytic review of tailored print health behavior change interventions', *Psychological Bulletin* 133 (2007), 673-693, for a thorough investigation.

43 For a comprehensive reference on designing and conducting such assessments, see Christopher Paul, Jessica Yeats, Colin P. Clarke, and Miriam Matthews, *Assessing and evaluating Department of Defense efforts to inform, influence, and persuade: Desk reference* (Santa Monica, CA, 2015) in RAND Corporation Online http://www.rand.org/pubs/research_reports/RR809z1.html

44 Apparently many European counterradicalization programs now have assessment components, a trend which should be applauded and continued. See James Brandon and Lorenzo Vidino, *European experiences in counterradicalization* (West Point, NY, 2013) In Combating Terrorism Center at West Point Online <https://www.ctc.usma.edu/posts/european-experiences-in-counterradicalization>

such efforts terminated or diminished.⁴⁵ In order to argue compellingly for continued support to this aspect of the broader counter-terrorism portfolio, proponents need to be able to clearly show which efforts work, and to what extent. As terrorists' use of mediated (i.e. electronic) communication grows to encompass psychological warfare, online indoctrination, recruitment and mobilization, planning and coordination, fundraising, and data mining and disinformation, a better understanding of these tactics and counterterrorism responses are needed.⁴⁶

Future research should explore the extent to which existing behavioural change theories are or are not useful in the counterterrorism communication context. Existing theories, might, for example, be useful for developing more carefully constructed audience segments and population groups, which could then be validated through rigorous assessment. Additionally, there is potentially much to be learned from merging behavioural change theories and radicalization theories. For example, some interventions may work better during different stages of the radicalization process.

The funnel model may also better serve communication efforts if placed in a broader evaluative context. Standard procedures should outline how to use evaluation prior to, during, and after communication efforts.⁴⁷ Not all evaluation is created equal, and different stages of evaluation serve different purposes. In order to build and refine counterterrorism communication theory and justify implementation strategies, more resources are required to collect short term and longitudinal data.

Currently, it is difficult to ascertain the effectiveness of the funnel model. It may be (again, this is an empirical question that should be tested) that smaller, more complex and nuanced efforts targeted against smaller and more carefully specified population segments will prove to be more effective. Dutch domestic counter-radicalization efforts provide an example.⁴⁸ Either way, better assessment will help establish which forms of intervention work best in which contexts, and help get the most out of any effort.

45 See, for example, Alex P. Schmid, 'Al-Qaeda's "single narrative" and attempts to develop counter-narratives: The state of knowledge', International Centre for Counter-Terrorism – The Hague (2014). and Philipp Holtmann, 'Countering Al-Qaeda's single narrative', Perspectives on Terrorism 7 (2013), 141–146.

46 Gabriel Weimann, and Katharina Von Knop, 'Applying the Notion of Noise to Countering Online Terrorism', Studies in Conflict & Terrorism 31 (2008), 883-902.

47 See Peter Romaniuk and Naureen Chowdhury Fink, From input to impact: Evaluating terrorism prevention programs. (Centre on Global Counterterrorism Cooperation, 2012). for an example of a comprehensive evaluation cycle diagram.

48 Lorenzo Vidino, 'A preliminary assessment of counter-radicalization in the Netherlands', CTC Sentinel 1 (2008), 1-3.

Thorough assessment should lead to better counterterrorism communication in the future, because approaches that actually work will have been separated from those that do not, and because process and practice will have been improved through assessment-based learning. There is much to gain from additional critiques of the funnel model. Using this approach to structure and tailor communication, attitudes and behaviours may be shifted away from radicalization. Finally, if further investigation demonstrates audience segmentation to be ineffective at identifying targets for counterterrorism communication, we can move on to testing other approaches to accomplish attitudinal and behavioural change.

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