



D3.1

Risk Analysis Framework Public Version

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Deliverable D3.1

Preventing, Interdicting and Mitigating Extremist events: Defending against lone1(g)-00(o)r5.1(5(t)-2.3(e)-5.9(x)1.2(t)-2.3(r)

Keywords

Risk Analysis Framework; matrix; theoretical background; terminology; radicalisation; attack preparation; attack; lone actors; literature review; meta-model; Situational Action Theory; IVEE; criminology

Acronyms

Acronym	Definition
DOW	Description of Work
IVEE	Individual Vulnerability, Exposure, Emergence
LAE	Lone Actor Extremist
LAEE	Lone Actor Extremist Event
RAF	Risk Analysis Framework
RAPA	Radicalisation, Attack Preparation, Attack
SAT	Situational Action Theory

1. Introduction

1.1 Context

Preventing, Interdicting and Mitigating Extremist events (PRIME) is a collaborative research project funded under the European Union's Seventh Framework Programme (FP7). PRIME started on 1 May 2014 and is slated to run for 36 months.

PRIME sets out to improve our understanding of lone actor terrorism and to inform the design of social and physical countermeasures for the prevention of lone-actor radicalisation, the disruption of lone-actor terrorist plots, and the mitigation of terrorist attacks carried out by lone extremists. In this endeavour, PRIME adopts a multidisciplinary approach, which combines formal modelling techniques drawn from security engineering with relevant expertise from the ecological, social, behavioural and criminological sciences. The end-product will be a decision-support tool for end-users whose remit is to deal with the lone actor terrorism threat.

PRIME's research activities involve a range of social scientific research methodologies for the purpose of collecting empirical data needed to produce scripts (integrated script and subscripts) of lone-actor extremist events (LAEE) and related analytical products. The ultimate aim of these combined products is to enable the identification of 'pinch points', where interventions (i.e. countermeasures) can be implemented to prevent, disrupt or mitigate lone-actor terrorist activity.

PRIME seeks to go beyond the state of the art in the study of lone actor extremism in a number of ways: firstly, by modelling factors, processes and indicators associated with LAEEs at several levels of analysis, and, secondly, by developing for this purpose a more rigorous theoretical and analytical approach than has heretofore been used in this domain to produce scripts and explanations of LAEEs.

The purpose of this document is to set out an analytical framework, founded upon past and current research in criminology, as well as scholarship on lone actor terrorism, group-based terrorism and extremist violence more generally, which integrates the aforementioned levels of analysis into a general causal account of LAEEs. The function of this framework is to:

- 1) guide and motivate the project's data collection activities, which ambition to collect new and innovative data on LAEEs; and
- 2) provide the 'bare frame' around which to build the LAEE script by identifying key categories of factors indicators associated with LAEEs, which are theorised

to signposts opportunities for the prevention, disruption or mitigation of these events.

Hence, the theoretical model described herein is intended for use as a risk analysis framework (i.e. a model which sets out the relationships between categories of risk factors and indicators at different analytical levels).

1.2 Objectives

The specific objectives of this deliverable are as follows:

To synthesise the knowledge-base on LAE radicalisation, attack preparation and attacks, as well as related factors and processes, drawing from neighbouring problem domains as relevant.

To outline the project's theoretical background and the Risk Analysis Framework, which will guide the project's data collection activities, and, ultimately, inform the development of the LAE script, the identification of

based terrorism, and the latter is, on balance, still considerably more deadly (Nesser, 2014; Spaaij, 2010).

A second prominent theme is concerned with defining lone actor extremism, and the difficulties associated with the exercise. As in the broader field of terrorism studies, there is no commonly accepted definition of what constitutes lone actor extremism or

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- 4) almost a third of the sample have a history of mental illness or personality disorder (31.9%) (Gill et al. 2014: 428), which is in line with other studies that have identified mental illness as a notable characteristic of lone actor terrorists (see also Nesser 2012: 66; Spaaij 2010: 862), compared with group actors.

Within the general diversity of lone actor terrorists, Gill et al. (2012; 2014) also found distinguishable differences between ideological subgroups. For example, compared to

means that many of these percentages would be much higher if one considered only recent cases.

A recurring question when examining lone actor radicalisation is whether there are factors, processes and mechanisms of radicalisation, at any level of analysis (e.g. individual), which are particular to this type of terrorism, or whether the insights and theoretical models developed in more general research on (group-based) radicalisation have something to tell us (Spaaij 2010, 2012; Pantucci, 2011; Moskalenko & McCauley, 2011). As previously stated, several studies would suggest that the picture of the individual 'self-radicalising' in complete isolation is misleading (Spaaij, 2012; Berntzen & Sandberg, 2014; Gill et al. 2012, 2014), if only given the increasingly prominent role that seems to be played by online extremist communities, as well as the fact that many lone actors are known to have had some kind of link to broader movements or political organizations. Conversely, in recent years, the phenomenon of so-called 'homegrown' radicalisation has been portrayed as typically involving elements of 'self-radicalisation' in trajectories of individuals who later joined radical milieus or terrorist groups, as well as small, autonomous cells of so-called 'self-starters' (Kirby 2007) or *quasi-lone* 'wolf packs' (Pantucci, 2011).

In other words, in the domain of radicalisation studies, the boundaries between 'types' of radicalisation, on a spectrum of 'lone' to 'group', appear increasingly hazy as more

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(mainly Western) home-grown radicalisation may contribute insights into the

support provided by family and friends (Brandon, 2009). At other times, ties may be wilfully broken, as friends and family react with worry or hostility to the individual's newfound beliefs (Neumann & Rogers, 2008). Pressure from intimates may drive people to hide their activities, hastening the severance of prior attachments (Wiktorowicz, 2005). In other cases, pre-existing bonds provide the very foundation of jihadi networks, whereby family and friends radicalise together and network members intermarry (Bakker, 2006; de Poot & Sonnenschein, 2011; Sageman, 2004). Conversely, Bartlett and colleagues (Bartlett, Birdwell, & King, 2010) describe young radicals turned away from violence by family members and other role models instrumental in presenting them with an alternative.

These turning points may be accompanied by, or manifest as, a change in religiosity. Precht (2007) notes that radicalised individuals tend to go from no faith to faith, from faith to a more radical observance of the same faith, or from one faith to another. Converts and 'born-again' Muslims are represented in most study samples. Bakker (2006) reports that 28% of the European jihadists for whom that information is available are converts. Of the rest, half were raised in secular Muslim families and rediscovered their faith as adults. The picture is similar in Australia, where converts and 'born again' Muslims together represent 66% of Porter and Keibell (2011)'s sample. Almost half of the 108 individuals for whom Sageman (2004) had information went from a secular upbringing to a religious outlook, as did the Al-Muhajiroun members studied by Wiktorowicz (2005), who lacked any kind of religious foundation or commitment to a spiritual framework before joining the movement (see, also, de Poot et al.'s case studies). Hamm (2007), too, writes of converts who rejected the

companionship, and other stress- or uncertainty-relieving circumstances may contribute to radicalisation through the provision of incentives to participation (see, notably, Sageman 2004; 2008). Thrill-seeking, an orientation towards action, an impatience felt as an 'urge to act', a 'bodily restlessness' characteristic notably of younger individuals have also been linked to the process (Olsen, 2009, p. 47).

Lastly, with regards to individual-level patterns of observations associated with jihadist radicalisation, studies report that several individuals involved in high-profile Western terrorist plots had previously

The moral teachings transmitted through these networks and through exposure to

of political, cultural, social and economic structures "geared towards the needs of the older generation," rather than their own aspirations (p. 49). Meanwhile, Genkin and Gutfraind's (2008) simulated model of cell formation would suggest that radicalisation is more likely to occur in cities with low population diversity and low migration rates – cities where "homogeneous ethnic ghettos" may form (p. 33).

The broader political environment is little addressed, at least empirically, though Western foreign policy is an oft-cited source of 'grievance' at the individual level (see, notably, Bartlett & Miller, 2012), although Precht (2007), among others, observes that European hotspots of radicalisation are found in countries which did not support or were not directly involved in recent Middle Eastern conflicts. The EU FP7 SAFIRE project undertook an investigation of 'national cultural' factors associated with violent extremism and terrorism, including socio-demographic and economic factors, what SAFIRE termed "psychosocial and cultural indicators", as well as political and institutional factors (SAFIRE, 2011). National, European and international databases were sourced for information about 48 different variables, in order to test their relationship with levels of extremism or terrorism at a country level. A number of proxy variables to assess the potential for radicalisation were utilised: multiculturalism; attitudes towards immigrants; tolerance towards diversity; and experiences of discrimination. Measures for terrorism included the number of attacks and perceived

fighters and mother to a new generation, as well as sisterhood with other recruits, contrasting these promises with the perceived failure of Western societies to deliver on their expectations (Peresin and Cervone 2015; Winter, 2015b). ISIS is believed to maintain a department dedicated to social media communication and propaganda. Broader factors and circumstances (e.g. the Syrian conflict) which contribute to this

an "activist career", understood as "a long-lasting social activity articulated by phases of joining, commitment, and defection" (Fillieule, 2010; see also, Fillieule, 2001; 2005), which involves different forms of violent experiences and violent action at different points in time. Pathways of political activism and radicalisation can be traced through various steps of engagement with different movements or political groups, and of belonging to different milieus or subcultures. Hence, attachment to a political cause or ideology, as Fillieule points out, rarely precedes involvement in militant activities, but is acquired gradually as a result of socialization during the process of mobilization and experiences of collective action (Fillieule 2010).

also involve different patterns of social networks (and different patterns in the way in which individuals relate to these networks) (Della Porta, 2013; see also Viterna, 2013).

It is with respect to this latter aspect – the role of social networks in processes of micro-mobilization – that social movement research has contributed most significantly to our understanding of the processes through which individuals enter into contact with political movements and radical groups. One of the most consistent findings of studies on political mobilization is that participation in (or recruitment into) movements and political groups is predominantly initiated via pre-existing social ties and personal networks (see e.g., Snow et al., 1980; McAdam, McCarthy and Zald, 1988; McAdam and Paulsen, 1993; Passy, 2003; McAdam, 2003). Processes of micro-mobilization are initiated and sustained by personal, as well as 'personal-political', relationships – in particular, shared histories of previous political or social activism among friends or within families – that serve as access-channels to the movement. Families, friendship-groups, and teacher/mentor-figures crucially influence individual decisions and pathways (Snow et al., 1980; McAdam, McCarthy and Zald, 1988). Moreover, frameworks of interpretation and notions of collective identity are adopted

relational embeddedness (and disembeddedness) at different stages of these trajectories, as well as to specify the effect of newly emerging relationships, as well as of those that break up.

Meso- and macro-level observations

A second way in which this literature may contribute to informing a general risk analysis framework of LAE radicalisation is by helping to specify the role (and makeup) of those environments in which radicalising activity occurs and the processes and determinants of their formation. In her comparative study of clandestine violent groups, Della Porta (2013) finds that one important factor that increased the likelihood that a particular individual would participate in a radical organization was their involvement in milieus that had formed at the radical fringe of movements, focusing on "the mobilization of militant networks as mechanisms of radicalisation in the formation of specific milieus, in which radical practices are accompanied by cognitive radicalisation as well as the development of strong affective ties in small groupings of friends-comrades" (p. 117). Participation in radical milieus was sometimes facilitated by family and friendship ties, and then intensified in everyday, physical experiences of violent confrontations with police and militia groups.

While these radical milieus are only briefly mentioned in Della Porta's study, Malthaner and Waldmann (who introduced the concept in 2008) have made them the object of a focused study and a collaborative research initiative on the immediate social environment of terrorist groups (Waldmann, 2008; Waldmann et al., 2009; Malthaner and Waldmann, 2012; Malthaner, 2014; Malthaner and Waldmann, forthcoming). Based on a comparative analysis of a number of cases, they offer a more refined approach to studying radical milieus. Whereas Della Porta focuses exclusively on social movements, they also consider the formation of radical milieus at the fringe of religious or ethnic communities. They differentiate between several types of milieus (radical subcultures, radical communities, and radical networks), as well as several patterns of their formation and resulting relations with broader movements and communities. Radical milieus can emerge from broader movements in a process of gradual radicalisation and escalation; they can form simultaneously in reaction to a perceived threat or attack (co-constitution); or they can form at a later stage, either autonomously or deliberately created by clandestine groups (secondary milieus) (Malthaner and Waldmann, 2012; forthcoming). Complementary works have extended and adapted the concept to address the issue of virtual communities (and non-face-to-face relations). Conway (2012), in particular, has examined the formation of radical online milieus in the case of al-Qaeda, as well as other militant movements.

With respect to mechanisms that contribute to the formation of radical milieus, Della Porta and Malthaner and Waldmann all focus on relational processes. The formation of radical milieus is, firstly, driven by dynamics of interactions between movements/communities and actors within their political and social environment

(state authorities, counter-movements, media), which often result in a mutually reinforcing pattern of gradual escalation. A second set of relational mechanisms result from interactions between radical parties and other groups within the same movement or community, which involve patterns of political outbidding, self-separation, positioning and isolation (Malthaner and Waldmann, 2014; Della Porta, 2013; see also, Bosi et al., 2014). Moreover, Malthaner and Waldmann (forthcoming) identify a number of structural preconditions for the formation of radical milieus, which include social segregation and social and spatial limits to state-control in certain societies, as well as histories of political and violent conflict that have shaped relations between minorities and central governments.

The concept of radical milieus refers to the immediate (formative and supportive) social environment of clandestine groups, and can be physically grounded in a number of very different places and spaces. The concept suggests ways of analysing relational patterns that can inform our understanding of the types and formation of radicalising

structure, or social composition; and public events during which authorities exceptionally tolerate certain activities.

aimed at those who do not measure up to norms of gender performance; he argues that rampage shootings are not only revenge for past humiliations, but also a reassertion of masculinity. Similarly emphasizing the shooters' need to reassert their masculinity, Newman (2013) uses the concept of "cultural scripts" to analyse how marginalized and socially failing individuals choose "masculinity-scripts" and cultural scripts involving violence to establish themselves as people to be respected (see also, Sandberg et al., 2014).

well as in real life settings, including university campuses, local communities, religious groups, and, more recently, internet fora (Schakade et al., 2010).

'Group polarization' is said to occur when deliberation in groups moves positions towards a more extreme point relative to pre-deliberation ideological preferences (Sunstein 2000). One particular type of group polarisation relevant to the study of radicalisation concerns the dynamics of groups referred to as 'enclaves' - that is, self-contained groups of like-minded people who share some measure of ideological preference (Sunstein, 2009; Hogg, 2012). As could be expected, experimental data suggest that deliberation in enclaves reliably leads to group polarisation.

The factors and processes involved are reviewed further in this section.

Individual-level observations

Not unsurprisingly, the literature on enclave deliberation and group polarisation is more concerned with social dynamics than with individual characteristics. Nevertheless, some studies have attempted to explore the relationship between enclave deliberation and individual factors. For example, Hogg and colleagues (2012) have developed what is called a 'psychology of uncertainty', which they link empirically to extremism through processes of self-selection to 'high entitativity groups'. Broadly, the argument is that individuals have a fundamental motivation to reduce feelings of uncertainty about themselves, their perceptions, attitudes and their place in the world, and that such feelings of uncertainty are effectively reduced by identifying with a group; this is especially the case with identification with high entitativity groups, such

The *informational influence* analytical strand includes theories that stress the rational processing of information in groups. Group polarisation is explained with reference to "cognitive learning resulting from exposure to arguments during discussion" (Myers & Lamm, 1976, p. 613). Group polarisation is understood as an active process in which individuals receive, reformulate and articulate information, and by doing so internalise new attitudes (ibid). Attitude change is seen as a product of informational input. 'Persuasive argument theory' is one well-documented variant of this line of reasoning, which states that an individual's attitude with regard to a specific topic is the product of the number of arguments for and against, which is present in the memory of the individual at the time when an opinion is to be articulated (Isenberg, 1986, p. 1145). Group discussion will accordingly lead to individual attitude change in a certain direction if the discussion makes available to the individual persuasive arguments in that particular direction. Research has shown that the magnitude of the polarisation effect depends primarily on: 1) the novelty of the arguments and ideas exposed through group discussion; 2) the validity of the information disclosed, i.e. how certain

In social corroboration theory, the focus is not so much on the effect of knowing other group members' position on an attitudinal dimension, but on the effect of realising that other group members share your own position pro or against a certain issue. Suppose that one is asked what they think about some question on which they lack

3.1 LAE attacks and preparation

There is not yet a distinct theme within the literature on lone actor extremism that focuses specifically on attack preparation, though one would expect that increasing

officials or politicians, who are more likely to be protected (COT, 2007; Eby, 2012; Spaaij, 2010; 2012; van der Heide, 2011; Teich, 2013). More specifically, Gill et al. (2014) report that lone actors targeted people in 41% of cases, 12% targeted property, while another 33% targeted both people and property. Based on in-depth interviews,

preferred targets, have evolved over time. She finds that the proportion of attacks targeting specific individuals dropped from 90% to 40% over that time; towards the end of the period, the most common targets had shifted from public figures to private citizens and property. While this may not be surprising, this observation reinforces the need to develop a general risk analysis framework, which can guide the development, if need be, of period-specific scripts and scenarios in future, so as not to have to 'start from scratch' with every new historical incarnation of the LAE threat.

3.2 Terrorist group attacks

Given the limited

- 2) selecting potential targets;
- 3) gathering information on those targets;
- 4) reconnoitring those targets ('hostile reconnaissance');
- 5) planning the operation;
- 6) inserting weapons into the area of operation;
- 7) inserting operatives into the area of operation;
- 8) executing the attack;
- 9) withdrawing the team responsible for the attack (if applicable); and
- 10) issuing a statement about the attack if appropriate.

An important point that the literature on terrorist groups' target selection reiterates, and which is illustrated by Drake's meta-script above, is that terrorist attacks are

Sanchez-Cuanca, 2007a, 2007b; Schuurman, 2013; Silke, 2011). Even seemingly 'successful' actors have to contend with such constraints.²

Context matters. As research by McCartan et al. (2008) and Røislien and Røislien (2010) shows, both the targets selected and the means employed to strike at them are influenced by location. For instance, Chechen rebels were found to strike at civilian targets more often within Russia than Chechnya, while Palestinian terrorists used suicide bombings more frequently within Israel than the occupied territories, where shootings were the preferred means of attack.

In summary, the literature on terrorist groups' target selection raises several important points. First, it suggests that ideological convictions influence target selection, and may also influence the preferred methods of attack. Second, a variety of constraints may influence target selection and the ability of terrorists to implement and execute their plans successfully. Third, the selection of targets and methods may be influenced by the location of both attacker and targets.

device, the perpetrators of the 1993 World Trade Center bombing were inexperienced criminals. This led to them inadvertently draw the attention of law enforcement officials at various times prior to the attack. Hamm's case studies of American right-wing extremists also uncovered similar criminal antecedents, as well as a desire for attention and celebrity that undermined these groups' ability to maintain operational security. Hamm concludes that conventional criminal investigations are a powerful tool for detecting and preventing terrorist attacks, and has been echoed by others. Kevin Strom and colleagues (2010) state that over 80% of foiled terrorist attacks on American targets between 1999 and 2009 were initially discovered by law enforcement or the general public. George Kelling and William Bratton (2006) similarly argue that police officers have historically proven not to be just first responders, but

and the conditions under which they may come to interact (Wikström, 2011). This necessitates going beyond empirical generalisations to conjecture inherently unobservable, but plausible causal mechanisms (Bunge, 2004). Progress is contingent upon the emergence of theories which can not only make sense of accumulated observations and are compatible with established scientific knowledge in major disciplines, but which can, also, bridge disciplinary silos to integrate levels of analysis and, crucially, produce general rather than strictly local explanations (Bouhana & Wikström, 2008).

While observations about lone actors and their behaviour have multiplied in recent years, few, if any, meta-models or theories of lone actor radicalisation and lone actor extremist behaviour have been put forward, which articulate systematically how the kinds of factors discussed in the prior literature review interact to produce one or the

In spite of a noticeable uptake in data-driven research (LaFree & Ackerman, 2009), the study of the causes of terrorism and radicalisation remains theoretically fragmented, leading at least one prominent scholar to express concern about the so-called stagnation of scientific research in this field (Sageman, 2014). In a recent review of research on Islamic-inspired home-grown radicalisation in Europe, Anja Dalgaard-

indicators (symptoms or markers) and genuine causal factors. Veldhuis and Staun (ibid) contribute a valuable synthesis of factors associated with radicalisation at several levels of analysis, but their 'model' relies on enumeration more than integration. How one should determine the exact role, and assess the relative importance, of each category of factors is unspecified; the lack of an explicit integrative framework manifests in the omission of an intermediate level linking the macro and micro levels of explanation. Kruglanski and colleagues' (2014) significance quest theory does take care to articulate the interaction between situational and individual factors, but leaves out a full appraisal of the social ecology of radicalisation (e.g. selection and emergence processes; see further in this report), which is likely necessary to explain variation in incidence between countries and communities at any given time.

This kind of theoretical fragmentation will be familiar to criminologists. In an ambitious paper published in *Crime and Justice*, Weisburd and Piquero (2008) set out to test the respective 'explanatory power' of theories of crime located at different levels of analysis. They conclude that all theories leave the bulk of the variance unexplained and advise that each theoretical framework should look to "what is not explained" (p.453), if scientific progress is to continue. One might be tempted to address this difficulty by throwing any and all 'risk factors' – individual, situational, social, ecological, macro-social – into the pot and hunt for statistical covariates of the outcome of interest (here: terrorism), but the limitations of this approach are recognised even by its proponents (Farrington, 2000) and have been discussed at length elsewhere (Wikström, 2011). In the search for risk factors or so-called 'indicators', one quickly finds themselves

conditions that could impact the evolution of species, and attribute to them some fixed amount of variance, net of other influence. Rather, early evidence in evolutionary theory was gathered from observation of natural experiments, and the powerful frame of the theory is not made up of a long list of statistically significant factors, but of a small set of interlocking general mechanisms (e.g. natural selection, migration and genetic drift), resulting in a meta-model or framework, which is adaptable and universally generalizable.

It is true that the general character of a meta-model can come at the cost of predictive power: evolutionary science does not set out to *predict* the evolution of specific species. To do so would require information about local ecological conditions in the very distant future, and it would require ignoring that evolutionary events (as social events) are also the product of chance (Bunge, 2006). Yet one would be hard-pressed to say that this lack of predictive power means evolution by natural selection is a failed theoretical framework. Nor does the ontological status of natural selection as more of a functional metaphor than a concrete causal mechanism in a physical system diminish the value of the explanation. Natural selection (like, for example, 'exposure' in the

within a setting. Should personal and setting rules conflict, a process of choice ensues, which is subject to the deterrent qualities of the setting (*external controls*) and the person's capacity to exercise self-control (*internal controls*). If an individual perceives an act of crime as acceptable in a set of circumstances, whether or not they will commit it depends on the effectiveness of deterrents. If an individual is induced to act against their personal morality (e.g. by peers), whether or not they will commit an act of crime depends on their ability to exercise self-control.

In the context of SAT, the distinction between perception, choice and motivation is essential for an understanding of action. People can be moved to the same action (e.g. a terrorist act) by many different kinds of motivation (e.g. anger, greed, grief, ideological commitment, or loyalty). To add to the difficulty, the same motivation, such as frustration with foreign policy, can move people to many different kinds of action. The vast majority of people who are provoked to action by, for example, the behaviour of a state representative (a *motivation* in response to a situation) will not see terrorism as an action alternative. They will not even consider it, but may consider other alternatives for action, such as signing a petition, taking part in a demonstration, or venting to a friend at the pub. Out of those who do perceive crime (e.g. terrorism) as an alternative, not all will decide to carry out such an act in any or all circumstances (a *choice*).⁶ SAT also explains how individuals who *do not* perceive terrorism as a possible alternative (who have not been radicalised) may yet become (knowingly) involved in an act of terrorism under situational pressures which overcome their capacity for self-control (i.e., the capacity to act in accordance with their own personal morals).

This brief discussion should illustrate why considering motivation alone is insufficient to explain a given action, and why it is necessary to look at individual propensity and moral context to explain why a particular motivation translates into a particular act in a particular set of circumstances.

The social-ecological model: The causes of the causes

SAT posits a clear analytical difference between the *causes*

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PReventing, Interdicting and Mitigating Extremist events: Defending against lone actor extremism

approaches. SAT has the advantage of being a well empirically-validated, general framework that articulates both developmental and action processes – a necessity for PRIME, which aims to model all stages of the lone actor event, from radicalisation to attack. Specific aspects or stages of the RAF may, however, benefit from insights from other accounts.

The analysis of attack processes (e.g. target selection; modus operandi) will indubitably draw from the extensive literature on opportunity theories (i.e. rational choice theory, routine activities theory; crime pattern theory) and situational crime prevention, while the analysis of the roles of selection processes and social emergence in radicalisation will benefit from accumulated research in social movements, social networks, and other relational approaches, as has been made amply clear in the first section of this report. Since the present deliverable is only concerned with the general RAF, these other theoretical approaches are not discussed in depth, but they will be referred to as appropriate in those deliverables concerned with scripting of the RAPA stages (D5.4-6).

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convenience, this analytical model or meta-framework of radicalisation is referred to

young adulthood (Beaver et al., 2007), with implications for young people's continuing openness to socialisation. Low self-control is one of the factors most consistently associated with crime and substance abuse (Pratt & Cullen, 2000). A delinquent past or a history of addiction (a notable sub-group among the radicalised population) could be evidence of weaknesses in executive control. This might, in turn, provide an explanation as to why individuals who cling to a legalistic rule system cannot help but stray from it: they lack the capacity to inhibit responses to day-to-day situations, even if these situations challenge their new moral guidance

While much work remains to be done to establish the specific (lower-level) mechanisms and processes responsible for individual differences in cognitive susceptibility to radicalisation (see, however, Kruglanski et al, 2014, for valuable work in this domain), the ever-growing literature in cultural neuroscience (see, e3hhnhg613(n)20(t)-5

people experience, which is why the discrete nature of life events matters less to the explanation of radicalisation than the process they trigger: a lasting change in a person's activity field, and, consequently, in her exposure to certain kinds of moral

When supporters of terrorist movements upload videos purporting to depict scenes of Western soldiers harming civilians in Muslim lands, they may also lead people to expose themselves to radicalising settings through self-selection. Viewing such videos may spark anger and eventually crystallise into grievance. These emotions, in turn, may give rise for a preference for settings where negative feelings can be aired and alleviated by sharing the experience with like-minded individuals.

More positive preferences may also lead to self-selection. For example, an article published in *Foreign Affairs* entitled "The World of Holy Warcraft" (Brachman and Levine, 2011) discusses how the 'gamified' features of some online forums entice young people to involve (i.e. expose) themselves to these forums, some of which have radicalising features, with ever greater intensity as they develop a (personal) taste for competition. Hence self-selection can take someone from YouTube, Facebook and discussion forums to, eventually, Syria.

Social selection sets the stage for *self-selection*, by constraining the kinds of settings people are likely to find themselves in. Observations have suggested, for example, that individuals who belong to certain groups – young people, residents in Muslim communities, students, immigrants, people with a criminal history – are over-

characteristics of the individuals who undergo the process. Social selection is likely to be the key process which explains why members of particular terrorist cells, groups or particular campaigns may share some socio-demographic characteristics – they met in places which draw people with these characteristics –, yet the search for general terrorist 'profiles' remains futile: radicalising settings are found in new environments over time – if only as a result of counterterrorist activity –, therefore, the kinds of people socially selected for exposure changes.

To explain why some (susceptible) individuals rather than others radicalise (*the problem of specificity*) is to explain why some people rather than others are exposed to the radicalising settings in their environment through processes of selection.

5.1.3 Emergence

As discussed above, observations suggest that settings that promote terrorism are not equally distributed in space and time. Some streets, neighbourhoods, communities, prisons, societies, even some countries have more of these kinds of settings compared to others at any given time. Processes of emergence link systemic factors (community-level factors and up) with social ecological processes of exposure, such as selection. At the systemic level are those factors and mechanisms, which explain why radicalising settings appear and remain in some environments rather than others. To explain *why radicalisation occurs in particular places at particular times* is to explain why

5.2 Analysing terrorist action

The point has already been made that it is analytically crucial to distinguish the process of development of propensities for action (e.g. radicalisation) from processes of action (e.g. terrorist act), if only because a person can engage in an action without having acquired the propensity to do so. Like radicalisation, the situational model of terrorist action articulates how processes at different levels of analysis interact in the explanation of terrorist action.

5.2.1 Individual propensity

A terrorist propensity results from the internalisation of terrorism-supportive personal morals (terrorism-supportive moral beliefs, values and commitments to terrorism-promoting rules of conduct, and associated moral emotions), as well as the level of capacity to exercise self-control. As expounded above, terrorist propensity is the outcome of the process commonly called radicalisation.

However, as previously stated, a terrorist propensity is not necessary for someone commit an act of terrorism: sufficient external pressures (e.g. peer pressure; a setting where terrorism is enforced as a social norm; acute stress or emotion; presence of drugs or alcohol) can override personal morals and internal controls in the face of the motivation to offend (e.g. being blackmailed into taking part in a terrorist plot). While such a configuration may be unlikely to arise in cases of LAEs, it should nevertheless be mentioned.

5.2.2 Exposure

Selection

The same mechanisms of social and self-selection which place (or not) particular people in radicalising settings operate to place them (or not) in particular criminogenic settings. Place of residence, group membership, personal preferences and routines – here again these factors will play a part in explaining how a person came to be exposed to a setting, in which she eventually committed an act of terrorism (or from which she acquired the capability to do so).

Criminological research has shown that people with a high criminal propensity will select themselves into settings which present opportunities for offending, while individuals with a low criminal propensity will not spend time in criminogenic environments (Wikström et al, 2012). Though the same kind of longitudinal data is not available, there is every reason to believe that the relationship holds for terrorism. This means that radicalised individuals are more likely to place themselves in situations which present opportunities for involvement in terrorism than the non-radicalised.

but whose motivation may flag in the face of the challenges that have to be overcome before they can carry out a terrorist attack.

While capability entails physical, material, but also neuropsychological (cognitive) and

5.3 Risk Analysis Matrix

To represent events in such a way as to identify concrete points of intervention, the RAF set out here can be usefully translated into scripts (graphical representations),

The categories contained in the matrix, organised by level, can be described as follows:

Individual level

Susceptibility to moral change. Evidence of cognitive susceptibility to moral change (or lack thereof) and of the historical factors involved in the personal emergence of this susceptibility (or lack thereof).

Susceptibility to social selection. Evidence of factors of social selection that dispose the LAE to exposure to radicalising settings in their environment (or lack thereof).

Susceptibility to self-selection. Evidence of factors of self-selection (personal preferences) that dispose the LAE to exposure to radicalising settings in their environment (or lack thereof).

Social, physical and cognitive resources. Evidence of resources relevant to the commission of the terrorist act (e.g. skills, intelligence, money, military experience; i.e. objective capability; see Ekblom & Tilley 2001) present at the outset of the action process.

Situational level

Exposure to radicalising settings. Characteristics of the settings (real or virtual) in which exposure to radicalising teachings took place and factors that explain the presence of the actor in the setting (e.g. type of personal preference).

Radicalising agents. Characteristics of the actor(s) (including virtually present) who transmit the radicalising teachings and thereof) andn2.0(ac)(t)-5.0()

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Emergence of social selection processes. Distal factors which influence social selection in society (e.g. residential segregation between social groups).

Figure 1 Risk Analysis Matrix

	Phase of Event		
	Radicalisation	Attack Preparation	Attack
Individual	Susceptibility to moral change Susceptibility to social selection Susceptibility to self-selection	Social, physical and cognitive resources Susceptibility to social and self-selection	Social, physical and cognitive resources

Social mohip5-1.0(o)-2.rins

6. Terminology

problems, by their nature, cannot be solved. While achieving consensus may be an appropriate, even a necessary, quality of any given legal, political or operational definition (more on this in the next section), consensus is not the yardstick by which scientific (analytical) definitions are measured, though it may be a desirable consequence. Rather, the essential qualities of a scientific definition are that it should be *reductive*, in that it should circumscribe with parsimony the phenomenon to be explained, and *nominalist* or *conventional*, in that it should state what a word (which may have a different meaning in the common language; e.g. *radicalisation*) is taken to

different epistemological outlooks. While science measures success by how close it has come to truth, engineering measures it by how satisfied users (and increasingly stakeholders) of the designed system are (Bunge, 2001). Some of the tension regarding the definition of terms like terrorism, especially between communities of academics and practitioners, likely owes, in large part, to diverging needs; while some are concerned with establishing the truth of their theories, others are concerned with designing practical or ethical solutions to problems. As stated earlier, good definitions are *good for a purpose*; hence, a scientific definition and an engineering or operational (practical) definition may be compatible (they should be, if the engineers and the practitioners want to draw from the scientific knowledge-base to design their solutions).

- 3) provided with the capability to act (materially or psychologically) by a group or organisation.

This would mean, for example, that if the actor had radicalised (acquired their propensity for terrorism) fully or partly in a group setting, but proceeded alone from that point, they would qualify as a lone actor. However, if they had radicalised largely on their own, then been given the target and provided with the resources to carry out an attack by an organisation,

environments or of the conditions which facilitate the commission of lone actor terrorist acts. Characteristics of LAEs and the settings in which they operate vary with epoch and context. These phenomenological variations pose a challenge to researchers: seeking to explain given instances of lone extremism (for example,

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