

# ***Analyzing Pathways of Lone-Actor Radicalization: A Relational Approach***

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*Terrorist lone actors not only vary significantly with respect to the degree of social isolation in which they operate, but also with respect to the ways in which they interact with other militant activists, radical milieus, or virtual communities during the process of radicalization. In this paper we argue that analyzing relational configurations and their evolution over time offers a way of identifying patterns and mechanisms of lone-actor radicalization. Relational patterns are informative not only because they locate and specify sources of radicalizing exposure, but also because social ties are cardinal vectors of intervention. Based on theoretical perspectives developed in the literature on terrorism and political violence as well as social movement studies, the paper develops an analytical framework to examining pathways of lone-actor radicalization, which emphasizes different types and functions of social ties as well as relational settings. The approach's usefulness is then illustrated by applying it to one in-depth case study.*

In a recent study on a dataset of 119 lone-actor terrorists Gill, Horgan, and Deckert examined inter alia socio-demographic network characteristics and antecedent behaviors of lone-actor terrorists (Gill et al. 2014). Surprisingly, what they found was that lone actors are not all that “alone” but often interact with – and are linked to – other individuals, groups, and wider networks and movements in various ways. About a third (33,6%) of the sample had recently joined a wider group or movement engaged in contentious politics; a similar proportion had family members or close associates who were involved in political violence or criminality (36,1%); and almost half of the “lone-actors” interacted face-to-face with members of a wider movement (47,9%); while the majority had consumed propaganda from a political movement (68,1%) (Gill et al. 2014: 430). If one takes into account the fact that these numbers are based on reports published by news media, which are likely to often underestimate the actual extent of social ties due to limited access to primary sources, a picture emerges of lone-actor radicalization not as an entirely individual and isolated process, but as a pathway that is at least partly embedded in social relationships and shaped by dynamics of interaction – although in ways that might differ from common pathways of joining terrorist groups.

Within the study of radicalization a paradigmatic shift from “profiles to pathways” has occurred over the last six-seven years (Horgan 2008). Yet, progress in applying a process perspective to empirical research is still limited. Statistical analysis of larger datasets has been limited to more or less static variable analysis, although there are some attempts to include a temporal dimension by adding “time-stamps” to certain items (see Gill, Horgan&nDeckert 2012; 2014). However, overall, tracing trajectories of radicalization in detail has more or less been limited to single-case studies. This is particularly true for lone-actor radicalization.

In this paper we seek to develop a relational perspective to analyzing the radicalization of lone-actor terrorists. Our aim, thereby, is to develop an analytical framework that adapts existing relational (network-) approaches to the study of processes of lone-actor radicalization by specifying relational factors, forms of social embeddedness, and dynamics of interactions relevant in the case of lone actors. Lone terrorist actors not only vary significantly with respect to the degree of social isolation in which they operate, but also with respect to the specific ways in which they interact with other militant activists, radical milieus, or virtual communities during the process of radicalization. Thus, we argue, firstly, that analyzing relational configurations and their evolution over time offers a way of identifying common patterns and specific mechanisms of lone-actor radicalization that can serve to distinguish main types of lone-actors based on the extent and form of their social embeddedness. Secondly, we argue that a relational perspective can help to develop a more precise understanding of elements of “lone-“ or “self-radicalization”. This may seem paradoxical. Yet, isolation is a fundamentally relational process. Furthermore, the reason why we believe that relational pathways are particularly relevant here is that they not only allow us to identify causal dynamics, but also to locate points of intervention and interdiction, because social ties are cardinal vectors of intervention and because it is primarily via social relationships that “early warning” signs can be spotted.

The paper’s objective to develop a relational approach to lone-actor radicalization, which can further our understanding of such processes and aid identification of intervention or ‘pinch’ points, runs parallel to the aim of an ongoing research project – *Preventing Interdicting and Mitigating Lone-Actor Extremist Events* (PRIME) – on which the paper draws. For this project we have gathered extensive empirical data on lone-actor radicalization, including a) a detailed medium-N open-source dataset composed of a sample of 30 cases of lone-actor extremist events covering different geographical contexts (US, Europe and the Middle East), perpetrator characteristics (political/religious orientation, gender) and attack types (attack/failed attack), and b) five in-depth case studies

(three German, two Danish) based on interviews and extensive documentary sources, including restricted court- and police-files. This data serve as the backdrop of the analytical model presented in the present paper, and one of the in-depth case studies is used to illustrate the analytical utility of the approach. Thus, the paper's ambition is rather theoretical than empirical. Further research within the PRIME-project, where we plan to apply the developed relational approach in a systematic way to the medium-N database of lone-actor extremist cases, will determine the external validity of the conclusions reached here, and help specify other pathways and mechanisms of lone actor radicalization.

The paper is composed of three main parts. In the first section we discuss the way relational approaches have been used in studies on radicalization and briefly re-visit some of the classic works in the social movement studies-literature in which the approach was originally developed. Based on this literature, we then develop a framework for studying processes of lone-actor radicalization as a relational pathway, specifying several basic, general functions of social ties and a number of particular mechanisms relevant in the radicalization of lone-actors. In accordance with this analytical framework we briefly introduce an innovative methodological approach to examine pathways of radicalization that allows to capture their dynamic and relational quality. In the third section we illustrate the benefits of this approach by discussing its application in the exemplary case of a terrorist lone actor.

## **1. Social ties and networks: Relational approaches to radicalization**

That relationships matter is a well-established finding in research on violent radicalization. Numerous studies have referred to social ties or relational mechanisms to explain how and why ordinary young people end up participating in acts of extreme violence (see Bakker 2006, Dalgaard-Nielsen 2010, Hegghammer 2006/2010, Klausen 2010, McCauley and Moskalenko 2008/2009, Nesser 2006, Neumann and Rogers 2007, Precht 2007, Schmid 2013, Sagemann 2004/2008, Silber and Bhatt 2007, Wiktorowicz 2004). Apart from notions such as the radicalizing influence of radical preachers on vulnerable youth, these works have mainly emphasized two important relational dynamics: (1) the role of pre-existing personal relations (friendship- and kinship-ties) in connecting individuals to – and channeling them into - radical groups and movements; and (2) the radicalizing effect of small-group-dynamics, that is, interactions among members of small, confined cliques of friends which push individuals towards adopting more extreme attitudes and exert peer-group pressure towards participation in high-risk activism.

To recapitulate how relational approaches have been used in research on radicalization in more detail, we take a closer look at the work of Marc Sageman and Quintan Wiktorowicz, both of whom focus on jihadist militancy in the West, whose studies are among the most prominent and theoretically the most advanced in applying a network-perspective to radicalization (for an introduction see also Dalgaard-Nielsen 2010: 801-805).

Sageman emphasizes and combines both, mobilization via pre-existing ties and group-dynamics in his analysis of jihadist radicalization (Sageman 2004/2008). Arguing that what is special about those individuals who actually joined a terrorist group (in contrast to others with similar beliefs and characteristics), is that “they actually made the link”, he identifies pre-existing friendship- or kinship-ties to be relevant in more than 75% of the cases in his database (Sageman 2004: 99, 113). Feelings of moral outrage and the belief that a war is being waged against Islam, particularly when they resonate with personal experiences, constitute important pre-dispositions, but the step to actually affiliate with jihadist networks is often initiated and facilitated by friendship networks. The process of radicalization then takes place as a “group phenomenon”: friendship groups and cliques form around mosques and other meeting places and become connected through strong bonds that promote intense loyalty and emotional support, with intensive interaction as well as increasing isolation from their social environment drawing them closer to radical interpretations (Sageman 2004: 110, 120/1; 2008: 86/87). In other words, Sageman connects mechanisms of in-group deliberation with dynamics of withdrawal, enclosure, and isolation vis-à-vis the members’ original networks of families and friends as well as towards the wider mosque communities. Dense, small networks of friends (cliques or enclaves) thereby play a crucial role in transforming individuals’ beliefs and perceptions, their “sense of themselves and their relations”, while social ties deepen in a spiral of increasing loyalty, devotion, and self sacrifice (Sageman 2004: 155; 2008: 86/7). Sageman summarizes his own analytical perspective as focusing on the “study of relationships of terrorists in context”, which includes “their relationship with each other, their relationship with ideas floating in their environment, and their relationship with people and organizations outside the group” (2008: 24). One important contribution of his second book was to add virtual relationships and online groups to his analysis of face-to-face “offline” relationships (Sageman 2008: 84). Forms of communication and social ties have been transformed by the internet, and repeated interactions in online-forums can provide a sense of belonging and drive radicalization via dynamics of mutual validation, self-selection of the most radicals, the illusion of numbers, and other mechanisms (Sageman 2008: 113-117). While Sageman emphasizes that it is important to link online- with offline networks, he also mentions that virtual relations may be

particularly relevant for lone actor terrorists: “they appear to be ‘lone wolfs’ only offline”, but often are members of forums and (see themselves as part of) virtual communities (2008: 122).

Quintan Wiktorowicz similarly identifies several important steps of a typical pathway of joining a jihadist group, which involve social networks. An initial phase of cognitive opening, which often is the result of a personal crisis of some sort, gives way to a process of religious seeking in which the search for meaning is channeled by religion and in which an individual gets in touch with religious groups. Contact to the movement, exposure to teachings, and participation in movement activities then leads to the gradual adoption of beliefs and frames of interpretation, which then is followed by more intensive socialization in smaller groups (e.g. closed study groups) where ideological commitment is reinforced by personal and emotional ties that render an individual ready to engage in militant action (Wiktorowicz 2005: 20-25). Similar to Sageman, Wiktorowicz emphasizes that connection and exposure to a movement often are facilitated by preexisting social networks, with personal relationships functioning as a social pathway for joining a militant movement (2005: 15). Yet, in contrast to the bottom-up process of radicalization described by Sageman with respect to jihadism in the West, Wiktorowicz emphasizes that in the case of the al-Muhajiroun-movement he was studying in Britain, initial connection often was the result of deliberate movement-outreach activities, that is, strategies adopted by movement-activists to spread their message and create opportunities for encounters and personal interaction with potential recruits. Also, he mentions that religious seeking can be self-initiated or triggered and guided by the movement (2005: 20/1). An important element in the gradual process of socialization and frame-alignment analyzed by Wiktorowicz, then, is a phase of involvement and participation in the wider movement that precedes intensive interaction in small, closed groups. Drawing on McAdam’s work on participation in high-risk activism, he argues that earlier engagement in low-risk activism is crucial in preparing and facilitating consecutive steps of engaging in more militant forms of action (2005: 19). In other words, social ties and relational dynamics are not only relevant in making initial connections and in the form of interactions within small radical groups, but also in the form of social relations with broader movements that entail processes of socialization and shape perceptions and beliefs.

In sum, what characterizes these two approaches is an emphasis on the role of social ties in *connecting* individuals to political movements and radical groups, and on the role of interactions and relationships within movements and small groups in *shaping perceptions, beliefs, and ideas*. While dispositions and cognitive receptivity play an important role, motivations and ideas do not necessarily precede involvement in activism, but are gradually adopted and re-shaped over

the course of a process of engaging and interacting with other activists in radical movements and groups.

Another relational approach to the study of radicalization that needs to be mentioned is Clark McCauley and Sophia Moskalenko's work on mechanisms of radicalization (2008). Rather than describing typical trajectories, they identify recurrent mechanisms that, in varying succession and combination, shape and drive processes of radicalization, locating these mechanisms at the individual as well as at the group level (see McCauley and Moskalenko 2008: 418). Among these mechanisms is the notion of friendship-ties as drivers of joining radical groups, which corresponds to the pre-existing social ties-argument, but also several mechanisms of in-group and inter-group-interaction such as extremity-shifts in like-minded groups, increasing group-cohesion under threat and isolation, radicalization as a result of competition with rival groups, and the effects of repression and persecution on "condensing" radical groups (McCauley and Moskalenko 2008: 421-426). What makes this approach interesting for us is, firstly, that by identifying recurrent mechanisms it allows to analyze very different forms of radicalization while at the same time specifying different patterns as particular combinations of certain mechanisms. Secondly, it offers a way of connecting relational dynamics at different levels, particularly the individual- and the group level, but also in-group interactions with out-group relations and the group's wider social context.

Before we start developing our framework for analyzing processes of lone-actor radicalization we briefly re-visit some of the "classic" works of social movement studies that originally developed the network approach which, as we argue, can help to clarify important differences in the functions and types of social ties and contain a number of elements that have so far not been applied in recent research on radicalization.

In their seminal study on the role of social networks in facilitating participation in social movements, Snow, Zurcher, and Ekland-Olson focus on what they call "microstructural avenues of recruitment" (Snow, Zurcher, Ekland-Olson 1980: 789). They emphasize three elements of processes of recruitment into activism: (1) structural proximity, that is, pre-existing social ties that increase the likelihood of coming into contact with movement activists; (2) availability, that is, the absence of constraining ties that bind individuals to other people, groups, and contexts and could hinder recruitment; and (3) affective interaction with activists, meaning the relational dynamics that take place after a person gets involved. An important contribution of Snow et al. is that they take a closer look at types of initial contact, differentiating between different sociospatial settings in which movements and potential participants come into contact and different

forms of interaction (Snow, Zurcher, Ekland-Olson 1980: 789/90). Network channels, that is, recruitment among pre-existing (extra-movement) personal networks of activists is one form of contact- or entry-points which can constitute a powerful connecting mechanisms, but which is also related to the movement's position towards its wider social environment. If a movement requires its members to cut all prior personal ties, or if a group moves underground, recruitment via pre-existing personal networks is much more difficult (Snow, Zurcher, Ekland-Olson 1980: 791/2). Snow et al. also offer a more nuanced understanding of pre-existing social ties by emphasizing that extramovement networks can function as countervailing influences hindering recruitment, and that it often seems to be the extent of this "structural availability" that makes the difference of whether an individual becomes an activist or remains in a more passive role (Snow, Zurcher, Ekland-Olson 1980: 793). In other words, rather than being a simple conveyor belt to activism, pre-existing social networks often have a quite complex and ambivalent role in processes of radicalization of activism.

Doug McAdam's work on recruitment to high-risk activism shares many of the premises of Snow et al., including the emphasis of prior social ties with activists and the importance of structural (biographical) availability (McAdam 1986). One important contribution of his work relevant for the purpose of this paper is that he distinguishes between different types of social ties, which can include informal friendship ties or more formal organizational affiliations, as well as strong and weak ties, which have different functions and implications for the recruitment process (McAdam 1986: 77/8). Moreover, he distinguishes between low risk- and high risk activism. Beyond specifying different types of pathways leading to different types of activism, McAdam also makes the point that low-risk- and high-risk activism often are consecutive stages of a process of gradual involvement in a political movement or a radical group, an argument later emphasized by Wiktorowicz (2005). Thereby, low-risk activism can in several ways contribute to "paving the way" and drawing people into high-risk forms of activism: they provide tentative, safe forays into new roles, facilitate new connections to other activists, and entail processes of socialization that contribute to the adoption of perceptions, attitudes, norms, and identities (McAdam 1986: 69/70). "Recruitment" thus often is, as McAdam argues, a gradual process that includes a cyclical dynamic of integration and socialization, with participation in a broader movement facilitating successive shifts towards more high-risk forms of activism.

Several points in these works should be emphasized that are particularly important for studying radicalization from a relational perspective. Firstly, in his approach to look at recruitment (or radicalization) as a succession of phases of

engagement with certain settings, McAdam also makes clear that these consecutive steps involve different instances of connection-making and socialization. In other words, links made via social ties are not only important in establishing initial contact to a movement, but activism within a broader movement or milieu then forms the basis for new ties that connect individuals to more high-risk (and radical) forms of activism. And socialization can take place in different phases, with prior socialization experiences “paving the way” for adopting more radical beliefs. This latter point – together with the notion of structural (biographical) availability as formulated by Snow et al. – also allows us to develop a more nuanced understanding of “disposition” and “vulnerability” to radicalization. Rather than being a static characteristic of an individual’s personality, they have a relational quality and are to some extent a result (and a feature) of an individual’s past and present relationship with their personal social environment. Dispositions are (also) the result of prior socialization experiences and patterns of biographical availability, and vulnerability can be described in terms of the absence of countervailing and constraining influences as well as in degrees of social disembeddedness and prior personal conflicts with family and friends, for example. Both studies, finally, emphasize that there are very different processes of participation and radicalization, differentiating between different patterns of pathways mainly on the basis of relational characteristics such as the sociospatial settings in which ties were formed, the type of social ties that connected individuals to movements, and the patterns in which movements are linked to their broader social and political context.

The different approaches put forward in the works discussed in this section form the basis for our endeavor of developing a relational perspective to studying processes of lone-actor radicalization. Thereby, the relevance of a relational approach to radicalization is underlined, *inter alia*, by recent works that emphasize the fact that radicalization of attitudes is not identical to radicalization of actions, and that radical beliefs do not predict violent actions (McCauley and Moskaleiko 2014). As Borum emphasized, an understanding of radicalization that exclusively focuses on the transformation of perceptions and beliefs risks implying that radical beliefs are a proxy for terrorism (Borum 2011a: 8). By looking at the way beliefs are transmitted and transformed by social networks and interactions, relational analysis can contribute to developing a much more precise understanding of how beliefs, actions, and social relationships are intertwined in processes of radicalization, and to address the problem of “differential participation” – that is, the puzzle of why some individuals end up participating in acts of violence while others with similar predispositions and social background do not.



## **2. A relational framework for analyzing lone-actor radicalization**

In this section we set out to develop a framework for analyzing processes of lone-actor radicalization from a relational perspective. The challenge is obvious: To what extent can we transfer insights on processes of radicalization in the context of groups and movements to the radicalization of lone-actors? And what are the specific mechanisms and relational configurations of lone- (self-?) radicalization that are particular to this type of actors? And finally: How can we analytically link relational dynamics with other causal factors, correlates and mechanisms?

The basic contention on which this paper is based is twofold. Firstly, as stated in the introduction, “lone actors” are rarely entirely socially isolated, but are to some extent, and at certain points in time, embedded in groups or wider milieus and interact with other activists and virtual communities. Secondly, we argue that a relational perspective can also help to develop a more precise understanding of elements of “lone-“ or “self-radicalization”. This may seem paradoxical. Yet, isolation is a fundamentally relational process. It often results from conflictive processes of interaction, withdrawal, or failure to connect to groups and is defined and shaped by an individual’s perceptions of their immediate and wider social environment as well as simultaneous orientation towards more abstract reference groups and virtual communities.

*Social pathways of lone actor-radicalization: Accounting for discontinuous trajectories, partial social embeddedness, conflictive interaction, and the effect of personality on social relationships*

Let us briefly recapitulate the “take home” points of the relational approaches in the literature on radicalization, which serve as the starting point of our framework. Focusing on social relationships and networks as the social pathways of radicalization, we understand radicalization as a gradual process that progresses through a concatenation of relationship-patterns and is shaped by dynamics of interactions. As previous studies have shown, trajectories of radicalization are often initiated by encounters or preexisting personal ties, are embedded in - and to some extent driven by - interactions in small groups and wider movements or milieus in which perceptions, beliefs, and values are formed and reinforced. Thereby, earlier phases and “low-risk” forms of activism can facilitate and “prepare” successive engagement in “high-risk” activism by socializing individuals into adopting ideologies, beliefs, and perceptions and providing opportunities to form new ties with other (more radical) activists. Disposition to violent radicalization, thus, may be the result of prior socialization

experiences. In addition to ties that draw individuals into activism, we need to consider restraining social ties that may impede radicalization, accounting for different patterns of biographical (structural) availability. Overall, pathways of radicalization vary significantly across different types of movements, forms of activism, and between different individuals, depending inter alia on patterns of relations between radical groups and their wider social environment.

How can we adapt this perspective to the study of lone-actors? What is particular about relational pathways of lone-actor terrorists is that they mostly do not follow a clear-cut pattern of increasing integration into movements and, consecutively, into radical groups, but often represent *more complex and discontinuous trajectories*. While to some extent socially embedded in radical movements or groups at some point in time, the pathways which lead them to eventually commit a terrorist act on their own are also shaped by *patterns of failed joining, marginal drifting, rejection, or impatiently pressing ahead and breaking away* from a reluctant group or milieu. Insofar – and in contrast (or in addition) to the approaches discussed above, which focus on dynamics of steadily increasing integration and participation, we also have to look for relational mechanisms that entail conflict, rupture, and isolation as well as for elements of *partial or weak social embeddedness*.

As mentioned above, the fact that in our analysis we “start from” the social pathway of radicalization does not mean that we exclude cognitive and other factors and mechanisms. On the contrary, our aim is precisely to link and study the connection of attitudinal and behavioral dimensions of radicalization. Beliefs are adopted, reinforced, and transformed in social interactions and decisions to act are often taken in group-contexts. But, particularly in the case of lone-actors, we also need to consider how characteristics of an individual’s attitudes and personality may shape relations with their social environment, for example in the form of impeding an individual’s ability to connect to others and “function” within a group. Being “alone” may be a choice, even a strategic choice, but it may also at times be the product of the individual’s (lacking) social skills and personality traits.

### *Specifying types and functions of social ties*

A first step in order to capture more complex and discontinuous relational processes is to specify different types and functions of social ties, which will provide us with a conceptual toolbox to precisely analyze a broader variety of relational dynamics in trajectories of lone-actor radicalization.

Firstly, we distinguish between *weak and strong social ties* (Granovetter 1978; McAdam 1986; see also Passy 2001). Whereas strong ties imply prolonged

interaction, greater emotional investment, loyalty, and shared values, weak ties are, accordingly, characterized by lower levels of engagement and commitment and may consist in mere superficial contacts based on few encounters. Obviously, rather than representing distinct types, strong and weak ties may be seen to define a continuum with various forms of “medium-strength” ties in-between. Moreover, we distinguish between *face-to-face* and *online interactions* and relationships, emphasizing, however, that both types of ties can differ in their strength, with online relationships ranging from prolonged interaction with the same people in closed online forums to singular, anonymous encounters or the mere passive consumption of another person’s messages and contents on the internet (as a “one-sided” virtual tie).

Furthermore, we propose to use a simple matrix that specifies relationships and interactions with radicalizing settings and radicalizing agents by charting a relational field comprised of three main sectors (or “sets of relationships”) which, in turn, are divided according to the degree of their strength/weakness (“strength” including dimensions such as: duration, level of personal closeness/investment, intensity of interactions) (See figure 1):

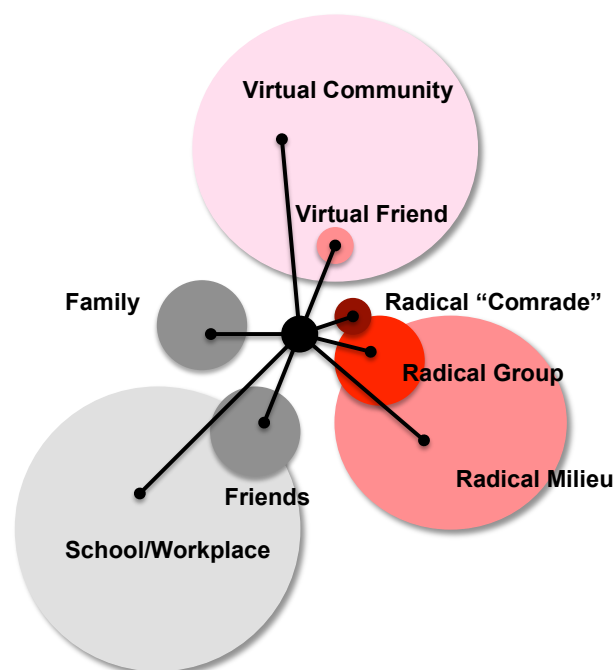


Figure 1: Relational field of personal and radicalizing relationships

(1) The *personal social environment*: family relationships, friendship groups, and relations at the school, college, or workplace.

(2) *Relationships with radicalizing agents and radicalizing settings (face-to-face/"real world" relationships)*: close relationships with a radical mentor or comrade; ties with a smaller radical group; ties with a larger radical milieu or movement.

(3) *Virtual radicalizing relationships*: direct and prolonged interaction with a specific radical activist; belonging to a virtual radical group (online forum) that interacts regularly; abstract ties with a wider virtual community.

In figure 1, the links to larger circles indicates weak ties, while links to the smaller circles suggest strong ties. Obviously, the main categories of relations can overlap, such as in the case of radicalizing family-relationships or online- and offline relationships with the same people at the same time.

As discussed above, strong ties are generally considered important for engaging in high-risk activism, whereas weak ties are deemed crucial in establishing connections across a broader movement and to spread ideas and information (Granovetter 1978; McAdam: 1986). Yet, for the purpose of this paper, it seems important to consider a broader variety of *functions* and combinations of weak and strong ties. Thereby, drawing on Passy's work on network-approaches in research on participation in social movements, we differentiate between *socialization*, *structural-connection*, and *decision-shaping functions* of social ties (Passy 2001).

The *socialization function* of social ties refers to the fact that participation is an identification process and that norms and values are adopted, and identities are created and shaped, in social interactions with other activists. Yet, there seem to be also weaker – but still important – forms of influence on an individual's beliefs and values exerted by social ties. Rather than a dynamic of tight integration into close social relationships re-shaping values and identities, in many cases we suggest that one might see weaker ties playing a crucial role in *confirming*, *reinforcing*, and *sustaining* certain beliefs of an individual. Moreover, social ties can point individual processes of religious (or ideological) seeking into a certain direction, without necessarily strongly influencing their content. Finally, as mentioned above, socialization and influence on beliefs and identities can occur at different points of a radicalization process, not only initial stages.

*Structural-connection* corresponds to the role of pre-existing social networks in linking potential recruits to radical movements. Again, we argue that a wider spectrum of connections at different points in time needs to be considered, beyond "first contacts" facilitated by family- and friendship ties, including connections formed via weak social ties or chance encounters, and connections formed at very different moments along a pathway of radicalization.

The *decision-shaping function* of social ties, finally, according to Passy (2001) refers to the fact that social interactions shape more specific and short-term perceptions and expectations that influence decision-making (in contrast to socialization which shapes more stable values and norms). Yet, beyond shaping perceptions it seems important to consider also other forms of influencing decisions – particularly decisions to engage in certain forms of action – such as peer-group pressure, notions of loyalty, and emotional commitments.

This notion of the power of social ties to make individuals remain part of a group or take part in certain activities even (to some extent) counter to their preferences points to a function of social ties which, even if strictly speaking it could be considered a form of “decision shaping”, is worth mentioning separately: the *constraining function* of social ties. Alternative personal networks and social ties outside a group or movement may exert countervailing influences that prevent further radicalization (e.g. the idea behind radicalization mentoring programs); on the other hand, close personal ties among members of a radical group may also constrain withdrawal or defection. Thereby, in addition to more stable patterns of structural (or biographical) availability mentioned above, we argue that we also need to pay attention to sudden changes in constraining patterns of relationships, such as the death of a close family member, the break-up of an engagement, or sudden unemployment, which weaken constraints and open the way for decisions and steps that previously had been impossible; a relational mechanism that McCauley and Moskalenko call “unfreezing” (2008).

#### *Mechanisms of “self-“ and isolated radicalization, partial embeddedness, and the role of agency in lone-actor radicalization*

To reiterate: the aim of this paper is to develop an approach for the analysis of pathways of lone actor radicalization from a relational perspective, and give a first illustration of the approach’s empirical utility (see next section). Building on this, we will eventually in the next steps of our ongoing research on lone-actor radicalization be able to (we hope) identify specific mechanisms of lone-actor radicalization as well as common patterns of trajectories identified by aggregating patterns from individual cases, that can serve to distinguish main types of lone-actors based on the extent and form of their social embeddedness. Thereby, our conceptualization and understanding of causal mechanisms – the building blocks of ideal-typical pathways of lone actor radicalization – is inspired by the process-and-mechanism approach developed by Doug McAdam, Sidney Tarrow and Charles Tilly (2008) within social movement studies. Thus, the process of radicalization is broken down into constituting causal mechanisms understood as ‘delimited changes that alter relations among specified sets of

elements in identical or closely similar ways over a variety of situations' (McAdam, Tarrow and Tilly 2008: 308).

"Conventional" relational mechanisms of radicalization in the context of social networks and small groups certainly may play a role in lone-actor radicalization, too. In order to capture the particular dynamics of lone-actor radicalization and their often more discontinuous and complex trajectories, we seek to complement them by specifying relational mechanisms of conflictive interaction and isolation, "self-radicalization, or dynamics of partial and weak embeddedness, which are more specific to this type of actor. We do so based on the differentiation of various forms and functions of social ties as outlined above. At this stage of our research, we have started to draft a tentative list of mechanisms drawing on a first and cursory review of the cases in our dataset. Further developing and specifying these mechanisms will be possible only after having completed a more comprehensive analysis of our medium-N dataset and in-depth case studies. This tentative (and incomplete) list of possible mechanisms includes:

- Conflictive interactions and isolation (confrontations with family members, work mates or prior friends leading to the gradual erosion of these relationships)
- Trauma/mental health issues and withdrawal from social relationships (depression or other issues resulting in disembeddedness from personal networks)
- Release from prison/other correction facility and failed re-embeddedness (isolation following departure from institution (sudden unfreezing) reinforce determination 'to do something')
- Isolated seeking and integration in virtual/online groups (interactions in online forums sustaining and reinforcing processes of adopting ideas and beliefs from online propaganda and teachings)
- Virtual integration and withdrawal from personal relationships (mutually reinforcing dynamics of "becoming absorbed" in online activities)
- Reinforcement by weak embeddedness in semi-radical groups (interactions with other persons that partly share an individual's beliefs having a sustaining and reinforcing effect on more radical ideas held by that individual)
- Rejection/failed joining of radical groups and individual radicalization (failed attempts to join or form a group, or rejection by a group, resulting in an individual's further radicalization after breaking off)
- Pressing ahead: frustration and impatience triggers a break with a reluctant group or milieu (interactions with other members in a less-radical group resulting in dissatisfaction of an individual with more radical ideas and "going all the way" on her/his own)
- The dynamics of isolated dyads: close associates, mentors and mentees (mutually radicalizing dynamic of isolated dyads, which may have a symmetric or asymmetric relationship)

Obviously, some of these mechanisms are relevant to understanding elements of “self-radicalization” in bottom-up processes of joining radical groups within more dispersed, loosely connected radical networks, too (Sageman 2008). Conventional network approaches, which emphasize initial contacts established via pre-existing ties, mention that prior held convictions and sympathies for a movement may facilitate this connection. Yet, we might have to consider the fact that processes of more or less individual “pre-radicalization” preceding first contact with other activists or a movement may in some cases play a more important role. In fact, they may prompt an individual to actively seek to establish such contact or to connect to other like-minded individuals and form their own group. In other words, we need to consider the role of *agency* in processes of radicalization, a point that has been overlooked in many studies on radicalization and participation in social movements (see also Passy 2001). Rather than being the passive object of influences and group-dynamics, and being “dragged” into radical activism by others (as “fellow traveller”), some individuals actively look for and engage with particular teachings and ideologies on their own initiative, seek contact with other radical activists or groups, and have a central role in building the very networks through which pathways of radicalization further progress. In general, but particularly if we want to adapt network-approaches to studying the radicalization of lone-actor terrorists, it is important to integrate this element of agency into our analysis, otherwise we run the risk of reifying the power of networks and groups over passive individuals in a way that prevents us from understanding trajectories and decisions of individuals preceding their joining a radical group – but also trajectories of lone-actors at the margins, after breaking off, or isolated from radical groups and movements.

### **3. Illustrative Case-study: Tracing the radicalization of “A”**

In the following, we present a first case-study of the radicalization of a lone-actor – we will call him “A” – using the developed approach in a tentative manner.

However, before doing so, a few words on the methodology adopted, which helps operationalize the relational approach to lone-actor radicalization developed above. First we compiled a codebook, which used as a starting point a list of radicalization-relevant items selected from the Horgan & Gill codebook (Gill et al. 2014). To this we added relational codes deduced from our theoretical approach, thus, adding codes regarding 1) relationships of personal social environment, 2) face-to-face relationships with radicalizing agents and radicalizing settings, and 3) virtual radicalizing relationships. Yet, a further challenge was to capture the temporal dimension of radicalization. Radicalization evolves as a gradual process involving a sequence of steps and transformations and is shaped by mechanisms

that are triggered at specific points in time. Moreover, settings and relational fields change over time and often are significantly re-shaped by the process of radicalization itself, so that interactions with these settings and their effects are time-specific. Thus, in order to 'dynamize' the codebook we crossed its categories with a timeline so that each piece of data containing a timestamp can be plotted onto the timeline of the radicalization process. The codebook, therefore, was expanded into a spreadsheet where condensed information can be stored according to dimensions of radicalization (not least relationships) as well as timing. Building on such cross-time matrix displays (Miles & Huberman 1994) we made use of process tracing (Beach & Rasmussen 2012), which entails moving backwards from the event under investigation (in our case the lone-actor extremist attack/arrest) and tracing the causal mechanisms, which together can account for the observed outcome.

### *The radicalization of "A"*

The radicalization of the young man referred to here as "A" illustrates very nicely how lone-actor pathways are embedded in relational constellations, and how individual (personality) and relational dynamics are intertwined.

"A" came to a Western European country as a young boy, migrating from the Balkans together with his family. His friends and teachers characterized him as smart, friendly and helpful, non-aggressive, funny, and reliable, also as somewhat introvert and withdrawn, but he was no loner at all. Personality-assessments after his deed stated that he appears to be easily influenced by others, to have low self-esteem, to have a rather passive attitude to life in general, and to have an instable self-image, which sometimes results in contradictory behavior.

His father had a small business from which he had to retire early because of illness when "A" was 17, a fact that caused serious financial hardship and seems to have been unsettling for the family. His family was Muslim and had fasted during Ramadan but was, in "A"'s words, rather "liberal". The main religious influence was his mother who taught him about Islam when he was a child. He started to pray and to take a greater interest in his religion "out of his own initiative" as he said, when he was 16 or 17, so around the time of his father's illness and during a time when he was in "a phase of drifting without perspective and no sense of purpose". He began to go to the mosque regularly together with his best friend, who was Turkish.

Shortly after that, "A" left middle-school and entered high school. At the end of his first year in high school, he apparently was in a severe personal crisis and started to show symptoms of clinical depression. He was invited for counseling because he had skipped many classes, which he explained to result from his



difficult family situation. At high-school, "A" became part of two circles of friends. One, which included one young man whose father was American, shared his interest in computer-games, mainly ego-shooter games like "Call of Duty". His second circle of friends consisted in two young Muslim students, one of Afghan ("M") the other of Arab origin. The Afghan, "M", had close family connections to radical Islamist activists and his brother was later arrested in Afghanistan for allegedly trying to join militant jihad there, and he apparently became some sort of mentor to the others. The group frequented a mosque famous to be a hotbed for the Salafist movement and accused of hosting radical (though non-militant) preachers, where they got to know two other brothers who were involved with a Salafist group proselytizing among young Muslims, later accused of recruiting young men for jihad abroad.

During his three years in high-school, "A" grew more and more serious about his religion, which, however, was noticeable only to his closest friends, as he maintained his usual friendly and joking attitude, played computer games, and did not become aggressive even in arguments about religion. Notwithstanding his visits to various mosques and his Muslim friends, he seems to have studied Islam mainly on his own, reading books and listening to lectures on the internet, having, as he claimed, "no specific reference person to look for guidance" on matters of religion. In addition to religion, he started to take an interest in the wars in Afghanistan and Iraq, and he was deeply moved by the suffering of innocent people and enraged by what he understood to be an illegitimate foreign occupation. During a summer-holiday with his family in the Balkans he apparently met radical activists at a local mosque. After returning, he started to grow a beard, which he explained to be a Muslim duty, and changed his name and profile-picture on Facebook, which now showed a Muslim rider carrying the black flag of Islam.

During his second year of high school, "A" had started to feel better, but his depression apparently returned and in the middle of his third year he was, again, in a severe personal crisis. Because of his bad performance and because of the number of classes he missed he was forced to leave school, a fact that he kept secret from his parents whom he told he had passed his exams and was waiting to enter university. He started to work for a charitable Muslim organization where he met two other young Muslims who shared his commitment to Islam and his outrage at the wars in Afghanistan and other Muslim countries; one of the two soon became a close friend. While his contact with his "secular" friends at school gradually lessened, he remained in touch with the group around "M" and other people he knew at the "radical" mosque. He even enrolled in an Arabic course together with his friends. Yet, while linked to a number of similar-minded people, he seems to have remained at the margins of the milieu around the

mosque. He never joined any of the Salafist groups or became active in any other way, and he even dropped out of the Arabic course after some time. The appearance of a Wikileaks-video showing a helicopter of the US-forces in Iraq killing civilians had a profound impact on him, and at some point he even considered going to Afghanistan to join the jihad. Yet, he did not see any realistic way for him to go there and eventually dropped the plan, which made him feel impotent and helpless.

In this situation of being weakly embedded in a broader radical setting and in personal relationships with individual activists – sharing their beliefs but being passive, without impulse, and somewhat adrift – his decision to commit a terrorist act emerged spontaneously in reaction to an emotionally powerful trigger. After working at the Islamic charity for around half a year he was, as he put it, in “one of those phases” in which he spend a lot of time watching videos and reading texts about jihad on the internet, including sermons by al-Awlaki and speeches and nasheed (songs) by the a terrorist group active in Afghanistan, including a song called “Mother remain steadfast”, which touched him profoundly. One night, following a link on Facebook he came across a video showing US-soldiers allegedly raping women in Afghanistan, which disturbed him and had such a deep emotional impact on him that he spent the night wide awake. Feeling that he had to do something to stop what he understood to be atrocities against innocent Muslim women, he then decided spontaneously to commit a terrorist attack against US military personnel in Europe that same day, using a gun that presumably belonged to a family member (no details on the attack to ensure anonymity.)

The trajectory of “A”'s radicalization is what we might call a *peripheral-drifter-pathway*. Partially embedded in (semi-)radical friendship-groups and weakly connected to wider radical milieus, “A” never actually became part of a radical group or engaged in more serious radical activism, but rather passively “drifted” in the margins, weakly considering but then again dropping plans to join jihad abroad, until reacting strongly to a seemingly unremarkable event by committing a spontaneous terrorist attack. The development of family relationships certainly created vulnerabilities and dispositions, but also entailed limited control and weak countervailing influences. “A”'s pathway of radicalization, then, took place as a an initially individual process of seeking that was at the beginning stabilized by the connection with his Turkish friend (who went to the mosque with him and with whom he could talk about Islam), but later became embedded in relationships with individuals and settings who represented much more radical points of reference and which triggered, sustained, and reinforced his increasing adoption of radical frames of interpretation, beliefs in the legitimacy of violence, and role models (his friend's brother). Yet, “A” did not actually join a terrorist

group or became a foreign fighter, which to some extent might have been due to a lack of available options, but which was also a result of his generally passive and indecisive personality. Yet, instilled with a powerful sense of duty and feeling personally and emotionally closely connected with his suffering Muslim brothers and sisters in Afghanistan and elsewhere, his passivity also seemed to have created an emotional condition in which a particular trigger could make him engage in sudden and extreme actions.

## Conclusions

This paper presents a theoretical approach that analyzes processes of lone-actor radicalization as a relational pathway. Drawing on theoretical perspectives developed in the literature on terrorism and political violence as well as social movement studies, we emphasize the fact that processes of radicalization entail a concatenation of relational constellations and are driven by relational mechanisms, seeking to specify forms of social ties and their functions, over time. We have pointed towards the need to consider how characteristics of an individual's attitudes and personality may shape relations with their social environment, and how weak ties may play a crucial role in confirming, reinforcing, and sustaining beliefs in lone-actor radicalization.

Beyond analyzing causal dynamics that shape certain individual pathways, we believe that the approach is capable of capturing different patterns of radicalization-pathways, which can form the basis for distinguishing different types of lone-actor terrorists. Lone terrorist actors not only vary significantly with respect to the degree of social isolation in which they operate, but also with respect to the ways in which they interact with other militant activists, radical milieus, or virtual communities during the process of radicalization.

Distinguishing types of lone actors based on patterns of relational pathways is relevant insofar as it identifies different causal dynamics as well as potential points of intervention.

Applying this approach in an illustrative case-study of the radicalization of "A", we found the approach useful in identifying "A" as an example of what we termed the "peripheral drifter-pathway" of lone-actor radicalization. Obviously further research will have to show how robust this pattern is across cases, and, thus, if the "peripheral drifter" in fact constitutes a distinct type of lone-actor extremists. The illustrative case-study showed how the developed approach made it possible to identify relational causal mechanisms of radicalization, which constitute a pathway, and, thereby, help to explain it. In the case of "A" the mechanisms of *conflictive interactions and isolation* ("A"'s confrontation with family and school leading to partial erosion of relationships), *trauma/mental*

*health issues and withdrawal from social relationships* (“A”’s depression resulting in disembeddedness from personal networks), and *reinforcement by weak embeddedness in semi-radical groups* (interactions with new friends and acquaintances that partly share “A”’s beliefs having a sustaining and reinforcing effect on the radical ideas held by “A”) seem to have been central in combination with the passive and withdrawn character traits of “A”. Again, further research will tell how robust/typical these mechanisms are, and how often they appear in combination like in the case of “A”.

The “peripheral drifter-pathway” is, of course, not the only recurring pattern of lone actor radicalization. Based on a first assessment of our medium-N database and the in-depth case-studies, other examples of potentially recurring patterns that can be tentatively identified include what we call the *failed joiner-pathway*. Here an individual (sometimes desperately) tries to connect to a radical or terrorist group, but does not manage to do so, or gets in touch with a militant group but is rejected or expelled, sometimes also because of personality traits which mean that that individual does not socially function within terrorist groups, and decides to act alone. The radicalization of Anders Behring Breivik seems to have followed this pattern. Another type might be pathways of *isolated dyads*, by which we refer to terrorist acts committed by two closely connected individuals, often a combination of one dominant individual pushing towards committing a terrorist act and another more submissive associate, who, during their radicalization function as autonomous micro-cells in which each side intensively influences the other. These examples are very tentative and resemble complex hypotheses, and their empirical relevance needs to be further explored. The point here is to illustrate how the developed approach can be used to distinguish types of lone actor-radicalization by focusing on how pathways are embedded in relational constellations over time.

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