

The process toward (violent) extremism: an integrated theoretical model using a theory knitting approach

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ABSTRACT

A key challenge within the (violent) extremism research field is building a comprehensive understanding of the process toward (violent) extremism. The lack of overarching models and the fact that explanatory models of (violent) extremism are often isolated/ stand-alone, fuels disagreement on how to understand the phenomenon. The goal of this article is to build such an integrated theoretical model that addresses two knowledge gaps within the existing literature: 'why' and 'how' does an individual become sympathetic to and/or involved in (violent) extremism? Based on a scoping review of 1856 records, we selected ten models of (violent) extremism. These models were then analysed using the 'theory knitting approach', searching to identify the overlapping and non-overlapping aspects between the different models. By incorporating the common analysed features and unique contributions of the models, we developed an integrated theoretical model of (violent) extremism as a non-linear and dynamic process model combining an insider and outsider perspective on (violent) extremism.

Introduction

Terrorist attacks - particularly those in Western Europe and the U.S. - have resulted in the prioritisation of (violent) extremism¹ on the international political agenda (Jasko et al., 2016; Ferguson & McAuley, 2021). In order to prevent and manage the risk of (violent) extremism, the 'unravelling of the terrorist's mind-set' has become a pressing issue. Different disciplines (e.g. psychology, criminology, sociology) have therefore been developing a wide range of multifactorial theories and explanatory models (Hardy, 2018; Schumpe et al., 2020; Sedgwick, 2010; Victoroff, 2005). However, the current state of the literature makes clear that the process toward (violent) extremism remains a widely discussed but inadequately understood phenomenon.

The conceptual imprecision, analytical fuzziness and fragmentation within research make it very difficult to find common ground to better understand (violent) extremism, leaving several important questions unanswered, for example: What is the role and impact of social contexts in the (violent) extremism process? Which specific background factors facilitate or cause (violent) extremism? How does (violent) extremism occur? Is this process gradual or involving sudden changes? Can one identify clearly delineated phases? What is the (causal) link between ideology and (violent) extremist behaviour? Existing models provide differing answers to these questions, using differing conceptual frameworks and perspectives (Hardy, 2018; Ozer & Bertelsen, 2018; RAN, 2016).

The above questions, and several other ambiguities within the (violent) extremist literature, can be divided in two main 'knowledge gaps': the 'why-question' of (violent) extremism and the 'how-question'. The 'why-question' refers to the factors identified as the causal factors of (violent) extremism. While some scholars start from a sociological perspective seeking the seeds of the phenomenon in overall structural factors, other models solely highlight triggers and drivers at the individual level (Dalgaard-Nielsen, 2010; Victoroff, 2005).

The 'how' question, on the other hand, refers to the way in which (violent) extremism occurs and how the various causal factors interact with each other over time. In this context, some researchers stress the linearity and graduality of the (violent) extremism process, identifying different phases and pathways, while others prescribe a dynamic and non-linear process (Hardy, 2018; Horgan, 2009; Kühle & Lindekilde, 2010).

Of course, these different perspectives should not necessarily be seen as competing, but rather as complementary (Dalgaard-Nielsen, 2010). Researchers should focus on finding commonalities between existing models and the areas in which they can complement and reinforce each other (Borum, 2017; Victoroff, 2005). Still, despite the upsurge in the radicalization and (violent) extremism research field, most models remain isolated and integrated models are only limited in scope (King & Taylor, 2011; Pauwels et al., 2014).

Therefore, the aim of this article is to contribute to the development of a more comprehensive understanding of the process toward (violent) extremism; not by developing a new model from a completely different angle, but by integrating the common features and unique contributions of already existing models of (violent) extremism. To do so, we use the *theory-knitting approach* of Kalmar and Sternberg (1988) whereby the best aspects of existing theories in a given domain are integrated or 'knitted' with one's own ideas about the phenomenon into a single, higher order, meta-theoretical framework (Sternberg et al., 2001). A criminological-psychological example of the theory knitting approach can be found in the sex offender literature (e.g. McPhail, 2016; Ward & Beech, 2016; Ward & Siegert, 2002), illustrating how this search for common ground helped to stimulate new research on various aspects of sex offending and sex offender treatment. Similar to the work of Ward and Siegert (2002), we aim to develop a comprehensive, integrated theoretical model that comprises multiple levels of explanation. That is, the model should not only address the etiology of (violent) extremism and its core features, but also the core mechanisms particularly important in the generation of (violent) extremism and its process over time.²

The article is structured as follows. First, we explain the aforementioned knowledge gaps within the (violent) extremism literature as these core questions will be the starting point of this study. Second, we present our scoping review based on the framework of Arksey and O'Malley (2005) that identifies existing models of (violent) extremism developed over the past 20 years. After analysing each model and identifying the overlapping and non-overlapping elements based on the theory knitting approach, we finally combine the results into an integrated, higher order theoretical model of (violent) extremism.

Knowledge gaps within (Violent) extremism literature

Within the past 20 years, researchers have developed several models of (violent) extremism in an attempt to better understand 'why' and 'how' one would turn to (violent) extremism and make costly sacrifices. So far, scholars have not agreed on a general causal model, as two knowledge gaps are still readily apparent within the existing literature (Christmann, 2012).

A first knowledge gap concerns the 'why question' of (violent) extremism: 'why do individuals become sympathetic to and/or involved in (violent) extremism? What factors are at the root of the phenomenon?' With this question, we look at the factors identified as the causal factors of (violent) extremism. Similar to Pauwels and colleagues (2014: 87), we consider a 'causal' factor as 'a factor that increases the probability of action or, put differently, that has the characteristics to bring about action'. As various social science paradigms have been applied to the (violent) extremism literature, researchers disagree on the relative importance of different levels of explanation (Dalgaard-Nielsen, 2010; Schils & Pauwels, 2016; Victoroff, 2005). Some of the earlier approaches of (violent) extremism considered mental or personality abnormality as the key explanation for (violent) extremism. Other researchers conceptualized a 'radical mindset' consisting of attitudes, intentions, inclinations and dispositions making an individual more vulnerable or inclined to engage in (violent) extremism. More recent models do not solely focus on the individual level but emphasize the importance of environmental factors such as social networks and group dynamics (Ozer & Bertelsen, 2018).

A second knowledge gap within the (violent) extremism literature is the 'how-question' of (violent) extremism: 'how or in what way do individuals become sympathetic to and/or involved in (violent) extremism?' How do the various factors interact with each other over time? Should (violent) extremism be represented as something that occurs 'suddenly' in one's life, or rather gradually? As a linear (i.e. process with a clear start- and endpoint in which something progresses in a straight line) or a non-linear process? As a phased (i.e. process consisting of successive steps) or rather dynamic event? While some researchers (e.g. Borum, 2003; Moghaddam, 2005) argue that (violent) extremism is a linear, phased process in which the different phases are clearly distinguishable and are taken 'step by step', others (e.g. Della Porta, 2013; Hafez and Mullins, 2015; Helfstein, 2012; Koehler, 2017; McCauley & Moskalkenko, 2008; Torok, 2015) suggest that (violent) extremism is a non-linear and dynamic process emerging from the combination of different factors.

As most models provide only limited information about the interaction of the different single factors over time, researchers disagree on what to consider as correlates and causal mechanisms (Schils & Pauwels, 2016). An important example of this is the 'beliefs-action axis', which is one of the most heated debates in (violent) extremism research (see e.g. Neumann, 2013). More specifically, it is unclear whether there is a causal relationship between (extremist) cognitions and (extremist) actions and how this relationship looks like. Can one be cognitively extremist without – eventually – committing violent acts? While some scholars state that a holistic approach to (violent) extremism cannot be achieved by separating beliefs from action, others propose a distinction between cognitive and behavioural (violent) extremism. Horgan (2011) and Borum (2011, 2017), for example, suggest that there is no inevitable link between extremist beliefs and violent action, as many people who internalize a radical ideology do not engage in terrorism

and vice versa. Cognitive (violent) extremism, in other words, is simply one of the many possible pathways toward terrorism and should therefore be studied separately from behavioural (violent) extremism. Other researchers (e.g. Neumann, 2013; Young et al., 2013) criticize this assumption and suggest that in order to understand why some people resort to violence and others don't, it is necessary to look at the ideology the individuals have come to accept and believe in. According to Neumann (2013), researchers should promote a holistic understanding of (violent) extremism and explore the nature and dynamics of ideology and its connectedness with behaviour in order to improve the (violent) extremism research field.

Methodology

In order to develop an integrated theoretical model of (violent) extremism that addresses the above knowledge gaps, we integrate the strengths of existing models of (violent) extremism developed over the past 20 years into one unified, comprehensive theoretical model. To collect these existing models, we conducted a scoping review from August 2020 until September 2020. We consider a scoping review as the best fitting search strategy as this allows us to map the wide range of (violent) extremism studies. The methodology for our scoping review is based on the methodological framework of Arksey and O'Malley (2005) that comprises five different steps: (1) identifying the research questions; (2) identifying relevant studies (search strategy); (3) study selection; (4) charting the data and (5) collating, summarizing and reporting the results.

(1) Identifying the research questions

As mentioned, the objective of our scoping review is to map the existing models of (violent) extremism developed over the past 20 years that address the following core questions: (a) *'why do individuals become sympathetic to and/or involved in (violent) extremism?'* and (b) *'how or in what way do individuals become sympathetic to and/or involved in (violent) extremism?'*

(2) Identifying relevant studies (search strategy)

A main obstacle when conducting scoping reviews of (violent) extremism literature is that researchers often use key words such as (violent) radicalization, (violent) extremism and terrorism interchangeably and disagree about the definition of these terms (Pauwels et al., 2014; Vergani et al., 2018). We therefore opted for a broad search and searched for the key terms (*'violent radicalization' OR 'violent radicalisation' OR radicalization OR radicalisation OR 'violent extremism' OR extremism OR extremist OR terrorism*) AND (*model OR theory OR framework*) in five databases: Proquest, Web of Science, Scopus, Google Scholar and Tandfonline.

(3) Study selection

First, we restricted our search query to the title of the papers, and included only articles³, books, book chapters and reports published or unpublished in English between 2000 and

2019. We excluded, for example, commentaries, biographies, editorials, journal introductions, conference papers and dissertations. We acknowledge that, by doing this, we may exclude interesting literature on radicalization and (violent) extremism. However, we are convinced that the large number of analysed records meet the standard criteria of quality. Our search generated a total of 1856 records.⁴

Second, we screened the title and abstract of these records on the basis of four inclusion criteria: (1) the study must involve the creation of a model that explains ‘why’ and ‘how’ an individual would become sympathetic to and/or involved in (violent) extremism. It is important that the model, whether it uses the term (violent) radicalization, (violent) extremism or terrorism, includes the component of violence. In other words, the model should explain the process whereby an individual becomes prepared to support, approve and/or commit violence. We do not make a distinction between types of (violent) extremism ideology (nationalistic or separatist; extreme left-wing; extreme right-wing; specific single issue; religiously motivated extremism); (2) In order to identify the strengths of each model (cf. *theory knitting*), the model must be developed based on empirical research (e.g. interviews, case file analyses, surveys). We exclude studies that do not elaborate on their methodology or are purely theoretical (i.e. models solely based on a literature review); (3) The study does not focus on a single case study; (4) Studies in which existing models are reviewed without resulting in the creation of a new model are only used as a source to find additional models of (violent) extremism and to analyse the selected models.

Based on the screening of the title and abstract, we excluded a total number of 1807 records. We then subjected the remaining 49 records to a full-text screening based on the same inclusion criteria: three records included a model of (violent) extremism that met our criteria. From the 46 records that did not meet the criteria, we selected the literature review articles (N = 4) as a source to find additional models that provide an answer to our two research questions. The four literature review articles yielded a total of 48 additional records, which were all full-text analysed. This analysis resulted in seven additional models (see appendix 1). Eventually, we included ten models of (violent) extremism in this study: Sageman (2004, 2008), Silber and Bhatt (2007), Precht (2007), Neumann & Rogers (2007), Van der Valk & Wagenaar (2010), Pauwels et al. (2014), Kruglanski et al. (2015), Hamm & Spaaij (2015), Winter & Feixas (2019) and Pfundmair et al. (2019).

(4) Data extraction or ‘charting’ the data

Once the list of included models of (violent) extremism was finalized, a ‘data charting table’ or coding sheet was created to extract the relevant information from the reviewed models (see appendix 2). Our table includes general information about the included models (authors, publication year, methodology, (violent) extremist ideology and (violent) extremism type) and specific information relating to our research questions. More specifically, we identified the different (causal) factors of (violent) extremism emphasized in each model (*why-question*) and examined how (violent) extremism is represented or illustrated (*how-question*). In addition, we identified the strengths and the shortcomings of each model to develop our integrated theoretical model based on the theory knitting approach (see *infra*). The final data charting table was reviewed (double coded) by the research team to overcome disagreements.

(5) Data synthesis or collating, summarizing and reporting the results

To analyse the extracted data from the included models of (violent) extremism and create our integrated theoretical model, we used the *theory-knitting approach* of Kalmar and Sternberg (1988) whereby the best aspects of existing theories (cf. strengths) in a given domain are integrated or ‘knitted’ with one’s own ideas about the phenomenon into a single, higher order, meta-theoretical framework (Sternberg et al., 2001). This methodology searches to identify the overlapping and non-overlapping aspects or unclaritys (cf. shortcomings) of the different theories. According to Kalmar and Sternberg (1988), theory knitting can be considered as an alternative approach to more traditional methods of theory development such as the segregative approach. Contrary to this latter, in which a new theory is segregated from previous ones, the emphasis in theory knitting is on explanation and identifying the common underlying theoretical dimensions (Sternberg et al., 2001). In doing so, the best and unique features of the different theories are combined so that researchers can learn from new insights regarding their research subject (Kalmar and Sternberg, 1988; Buschman & van Beek, 2003). As theory knitting has not yet been applied to the phenomenon of (violent) extremism, our approach to develop an integrated theoretical model of (violent) extremism is unique within the (violent) extremism research field.

Results

The analysis of the existing models of (violent) extremism resulted in both overlapping and non-overlapping elements or unclaritys with regard to the why- and how-question of (violent) extremism (see Figure 1). Our key findings are presented in the next section.

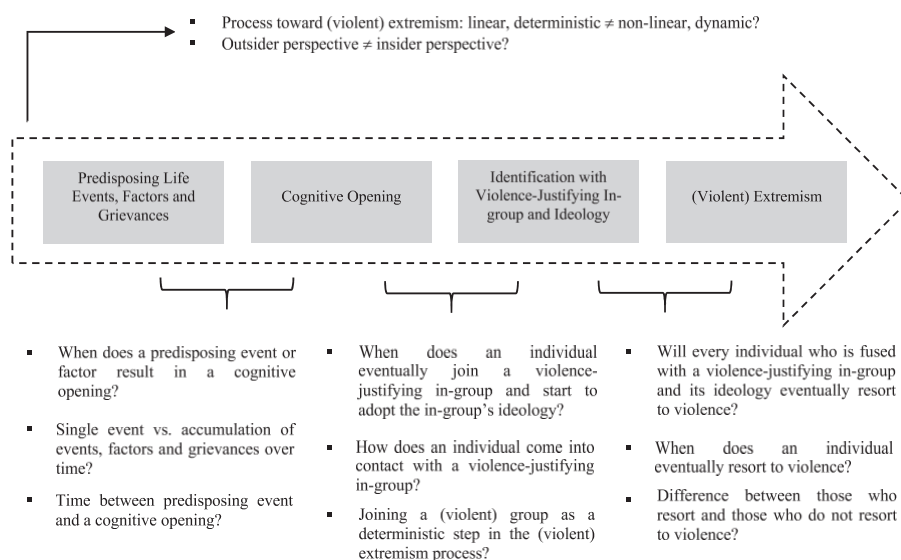


Figure 1. Summary of the Overlapping and Non-overlapping Elements between the Existing Models of (Violent) Extremism

Identification of the overlapping and non-overlapping elements

(1) Why-question: causal factors of (violent) extremism

The first knowledge gap refers to the 'why question' of (violent) extremism: 'why do individuals become sympathetic to and/or involved in (violent) extremism? What (causal) factors are at the root of the phenomenon?' Our analysis of the ten identified models of (violent) extremism resulted in four overlapping key factors of (violent) extremism: (1) predisposing life events, factors and grievances, (2) cognitive opening(s), (3) the violent extremist in-group and (4) the violent extremist ideology.

Predisposing Life Events, Background Factors and Grievances. The first overlapping key factor is the importance of certain life events, background factors or grievances that make the individual more vulnerable to question their certainty in previously held beliefs (e.g. in the existing order, the accepted social norms and the legitimacy of the system) and self-concept: e.g. past shocking events, exposure to discrimination and exclusion, political and personal grievances, relative deprivation, perceived injustice, personal or identity crises, meeting other like-minded people and even joining a (pre-existing) group (Borum, 2017; King & Taylor, 2011). Each model situates these predisposing life events or factors at the beginning of the process toward (violent) extremism and at different levels: micro-level (individual level), meso-level (group-level), macro-level (society-level).

The models tend to conceptually parse such predisposing life events or factors in different ways. For example, the model of Silber and Bhatt (2007) uses 'social, psychological and demographic factors', Precht (2007) refers to 'background factors', Hamm and Spaaij (2015) use 'personal and political grievances', Kruglanski and colleagues (2014) refer to 'a threat or loss of significance' and Winter and Feixas (2019) use the term 'invalidation episodes'. In this context, researchers often make a distinction between push and pull factors. Where push factors are linked to negative characteristics that 'push' someone away from the accepted social norm, pull factors refer to positive characteristics that 'pull' or attract individuals to (violent) extremism influences.

Although all analysed models agree on the importance and the presence of predisposing life events or factors in the (violent) extremism process, our analysis identified several non-overlapping elements and unclarity between the models. First, the majority of the analysed models are unclear as to whether or not predisposing life events or factors can be considered as 'causal' factors of (violent) extremism. The model of Precht (2007), for example, states that background factors might make individuals receptive and vulnerable for (violent) extremism. At the same time, however, the model claims that background factors 'as such' offer no explanation for (violent) extremism as they are often common conditions or situations and therefore cannot be specifically linked to (violent) extremism. In other words, (violent) extremism would then be the norm, rather than the exception. In line with this, some models (e.g. Hamm & Spaaij, 2015; Neumann & Rogers, 2007; Pfundmair et al., 2019; Precht, 2007; Silber & Bhatt, 2007) remain vague as to whether the objective events or factors 'as such' can be considered crucial in the (violent) extremism process or the subjective interpretation or 'experience' of these events/factors. The models that do emphasize the importance of the subjective interpretation or experience do not explain 'how' these events are experienced or, more specifically, how we can explain inter-individual differences. Last, we noted that the analysed models of (violent) extremism tend to

consider such predisposing life events or factors to be ‘life-changing’, although it can be questioned whether these events always have to be ‘major’ or can also be an accumulation of ‘daily hassles’ (Kanner et al., 1981). As these ambiguities are not elucidated by the analysed models, it remains unclear what can be considered ‘causal’ and how we can explain different responses to (common) predisposing events, factors and grievances.

Cognitive Opening(s). According to our analysis, each model refers to a moment or psychological state at the beginning of the (violent) extremism process in which an individual increasingly questions his/her previously held beliefs and self-concept, and becomes receptive to alternative ideas and perspectives, including those of (violent) extremist nature. According to the analysed models, this ‘questioning’ of the self and the beliefs does not occur in a vacuum but is the result of predisposing life events, factors or grievances that trigger an individual’s awareness that something needs to change or ‘has to be done’ and that, at the same time, break down one’s personal resilience against (violent) extremist influences (see *infra*). In this context, the model of Precht (2007) uses the concept of a ‘*transformation process*’, while Winter and Feixas (2019) and Hamm and Spaaij (2015) refer to a ‘*turning point*’. In order to bring this under one denominator, we use Quinten Wiktorowicz’s (2004) concept of ‘*cognitive opening(s)*’ to refer to this process, cited by most of the analysed models (e.g. Neumann & Rogers, 2007; Pauwels et al., 2014; Pfundmair et al., 2019; Silber & Bhatt, 2007).

Although the analysed models consider a cognitive opening as a necessary element in the (violent) extremism process, they remain unclear regarding the causality of this factor. Given that some models refer to the possibility of ‘multiple’ cognitive openings in an individual pathway (Neumann & Rogers, 2007; Pauwels et al., 2014; Precht, 2007; Winter & Feixas, 2019), we could question whether a cognitive opening automatically creates a receptivity and openness toward (violent) extremist influences, or if we can consider such a psychological state as a critical crossroads where different alternatives are still possible (see *infra*). In addition, the analysed models do not indicate if individuals always experience a cognitive opening, and how they experience this.

Violence-justifying In-group. Another important factor fundamental to the understanding of (violent) extremism – emphasized as the cornerstone in each model – is the identification of the individual with a (violent) extremist in-group. Each model indicates that, at some point, an individual will get affinity with or join a violence-justifying in-group, whether in the real world or online. Even in lone wolf terrorism, social ties are integral to the development of the motivation and capability to commit or support violence (see Hamm and Spaaij, 2015). This in-group can be a virtual, mythical or formal organization devoted to a shared purpose (e.g. ISIS, Boko Haram, KKK) (Kruglanski et al., 2013; Mølmen & Ravndal, 2021).

The in-group can generally be considered as the motor for change during the (violent) extremism process. An attractive factor of groups, and especially (violent) extremist groups, is that they usually provide a stable identity and certainty about who they are and how they should behave and how others should behave. This ‘group-mentality’ fosters feelings of ‘superiority’ and, at the same time, an ‘us versus them’ mentality (Harris et al., 2015; Trip et al., 2019). In this way, (violent) extremist groups are able to help individuals with personal goal management and implementation by giving all group members a similar sense of meaning, belonging, connectedness, cognitive closure, ideological recognition, agency and certainty. However, as the model of

Pauwels and colleagues (2014) indicate, an individual will not join ‘any’ group. More specifically, the individual must recognize his/her own general views in the belief system of the in-group and must be convinced that the in-group is capable of answering the individual’s need for goal attainment that may have triggered the cognitive opening (Kruglanski et al., 2015; Pauwels et al., 2014).

Next to the (violent) extremist in-group the individual fuses with, the pre-existing social network of an individual may also play an important role in the process toward (violent) extremism. The pre-existing group refers to the group of friends, family members, peers or other connections the individual was already part of. According to the analysed models, the pre-existing social network may operate at different levels. First, they may instigate a cognitive opening by responding to one’s grievances, leading an individual to become receptive to other values and ideas. Second, they may play an important role in encouraging, accelerating and facilitating the adoption of (violent) extremist worldviews after a cognitive opening is created.

Next to the overlapping elements, an important mutual shortcoming of the models is that they do not address the question why some individuals choose to join a violence-justifying in-group, rather than opting for a pro-social alternative that might in the same way address the individual’s needs.

Violence-justifying Ideology. The ‘ideology’ of an in-group can be considered as the interpretative lens through which group members perceive and judge the world. This lens prescribes certain values and norms people should hold and achieve in life and legitimizes the means for its attainment and protection. According to Brucan (1986: 247), ‘it is ideology that drives men and women to act together, fight together, resist together, hold on to power together’. In other words, it influences our goals, thoughts and actions and contributes to a feeling of belonging. As such, we can regard ideology as a cognitive-affective (attitudinal) component of agency (Durnescu, 2018).

Although each model emphasizes the importance of a violence-justifying ideology during the process toward (violent) extremism, the models disagree on the causality of the factor and its role in the (violent) extremism process. While some models consider a complex, and detailed ideology as the central factor leading to (violent) extremism, other models suggest the prime mover to join a violent extremist in-group is mainly social in nature. More specifically, the models of Precht (2007), Silber and Bhatt (2007) and Winter and Feixas (2019) suggest that an individual first identifies with a violence justifying ideology before joining a violent extremist in-group. Van der Valk and Wagenaar (2010), Neumann and Rogers (2007), Kruglanski and colleagues (2014), Pauwels and colleagues (2014) argue the opposite. These models emphasize the importance of what an ideology can offer an individual, or what it makes particularly attractive in an initial phase: for example, a sense of belonging, respect, superiority. According to these models, the complete ideology, with all its details, is not learned and adopted only until later in the process. In this context, however, we could question whether individuals who actively engage in violent extremism are always ‘fully’ ideologically indoctrinated.

(2) How-question: interaction of the causal factors over time

The second knowledge gap refers to the way in which (violent) extremism occurs and how the causal factors interact with each other over time.

According to the analysed models, the process toward (violent) extremism generally starts with predisposing life events, background factors or grievances leading toward a psychological state in which an individual questions his/her previously held beliefs and self-concept and becomes receptive and vulnerable for (violent) extremist ideas. Each analysed model indicates that, once a cognitive opening is created, the individual may come into contact (whether in the real world or online) with new interpretation schema's or reinterpretations of existing schemas of a certain in-group whose ideology provides a more stable identity and certainty. In this way, the individual aims to cope with the impact of the predisposing life events, factors or grievances that triggered the cognitive opening. Once the individual has joined an in-group and its ideology, an identification process takes place that may intensify over time. This occurs through socialization and bonding processes via, for example, group activities (Precht, 2007; Sageman, 2004, 2008). In this context, Kruglanski and colleagues (2014) refer to a 'collectivistic shift', while Neumann and Rogers (2007) use the concept of 'frame alignment'. The impact of this identification process on the individual may result in a 'fusion' of the individual with the (violent) extremist in-group and its ideology. This entails that the person's self-concept becomes one with the in-group and its ideology (cf. social identity), and that personal goals become group goals (Kruglanski et al., 2014; Winter & Feixas, 2019; see also Atran, 2016). As a result, an individual becomes increasingly willing to engage in group-supporting behaviour in order to protect the in-group which might eventually result in (violent) extremist behaviour.

After close analysis of the different models, we can identify several non-overlapping elements and unclarities between the models with regard to the how-question of (violent) extremism. First, the models do not situate when or at what point a predisposing life event, factor or grievance eventually results in a cognitive opening. Can a single event or crisis lead to a cognitive opening, or does this require an accumulation of different events, factors or grievances over time? How much time can pass between a predisposing event and a cognitive opening? Second, it remains unclear 'when' an individual eventually joins an extremist in-group and starts to adopt the in-group's ideology. In other words, there seems to be an 'unexplainable' gap between 'having a cognitive opening' and 'identifying with the in-group and its ideology'. In line with this, we note that most linear phased models seem to consider joining and identifying with a violent extremist in-group and its ideology as a 'natural' or 'deterministic step' in the (violent) extremism process (Lorenzo-Penalva Lucas, 2018). However, as mentioned, we could question whether a cognitive opening always have to lead toward the identification with a (violent) extremist in-group. Third, the models do not agree on how an individual comes into contact with a violent extremist in-group. While some models indicate that individuals 'actively' seek contact with violent-extremist in-groups, other models indicate that this affiliation occurs more passively (i.e. the group will recruit individuals). At the same time, however, the models seem to 'ignore' the groups of the 'lone wolves' and the 'self-radicalised', as individuals do not always formally join a group. Fourth, although all models indicate that only a few individuals will eventually resort to violence, the difference between those who resort and those who do not resort to violence remains unclear. Will every individual who is fused with a violence-justifying in-group and its ideology eventually resort to violence? And if so, when will this happen? A fifth and last important tension with regard to the how-question, is that although most analysed models illustrate

the process toward (violent) extremism as being linear and consisting of different, consecutive phases that are clearly distinguishable, close analysis makes clear that some of the seemingly linear, phased models are actually inherently non-linear and dynamic. More specifically, the models of Silber and Bhatt (2007), Precht (2007), Van der Valk and Wagenaar (2010), Kruglanski and colleagues (2014) and Pfundmair and colleagues (2019) illustrate (violent) extremism at first glance as a linear and phased process, while at the same time claiming that some factors or mechanisms are only important in conjunction with others and that the transition between the phases occurs more fluidly than their visual representation suggests.

Knitting it together: toward an integrated theoretical model of (Violent) extremism

Our analysis of the existing models of (violent) extremism points to several overlapping aspects with regard to the 'why- and how-question' of (violent) extremism, allowing for integration into a comprehensive theoretical model. At the same time, however, we identified various non-overlapping aspects and ambiguities that prevent us from gaining insight into the 'complete' picture of (violent) extremism (see Figure 1).

An important finding of our analysis in this context, is that most of the existing models of (violent) extremism explain the process toward (violent) extremism from an 'outsider perspective'. Through the eyes of an external observer (e.g. family members, friends, colleagues, social workers, academic researchers), (violent) extremism seems a visible, gradual 'process of change' that can be divided into different, distinct phases that follow a more or less straight path. Visualising the process toward (violent) extremism in this way allows one to map and unravel the phenomenon in a more general, simplified and manageable manner. In addition, it allows governments to implement specific countering-violent extremism (CVE) programs and initiatives based on the different phases. However, such a representation does not need to correspond to how the process really occurs for and within an individual (cf. insider perspective). For example, it is possible that, from an insider perspective, no visible change occurs along different phases, as most of the different factors manifest themselves 'obviously' in the life of an individual. Rather, the individual might interpret these changes or steps as 'self-evident'.

Taking the different identified tensions and remaining questions into account, our analysis of the different models suggests that an outsider's perspective seems insufficient to comprehend the 'complete' process toward (violent) extremism. In addition to an outsider perspective, researchers should also gain insight into how the process was experienced by the individual him/herself, why certain choices were made or were not made, and what individuals think, feel, strive for (and this within their social context) and how this evolved over time (cf. *insider perspective*).

However, we cannot grasp both perspectives by using deterministic, linear models. Based on the above results and starting from the overlapping elements between the existing models, we therefore propose a process model of personal functioning that explains (violent) extremism as a *dynamic* and *non-linear* process. In a process model of personal functioning (see e.g. Decoene, 2016; Dweck, 2017; Horney, 2006; Mayer, 2005; Mishell & Shoda, 1995) situations or features of a situation are encoded and experienced psychologically by and within an individual. These experiences may impact upon one's

cognitions, beliefs, emotions, goals, values and affects, and can – but need not – generate action tendencies. As these processes occur psychologically, they cannot be observed, only inferred. Although process models of personal functioning allow for the development of habitual ways of functioning, they stress how these psychological processes are situationally and temporally flexible (Decoene, 2016; Mishel & Shoda, 1995).

The integrated theoretical model

According to our integrated theoretical model of (violent) extremism, individuals are continually confronted with different situations or life events at micro level (individual level), meso level (group-level) and macro level (society-level). These events can be situated at the beginning of the (violent) extremism process. Contrary to the analysed models that emphasize the importance of the events ‘as such’ in the (violent) extremism process, we believe these events or factors play a causal role and impact one’s personal functioning ‘only’ when they are experienced as ‘significant’ by the individual. In this context, we use Borum’s concept of ‘*predisposing life experiences*’ (2017). This concept entails two aspects: (1) the objective events or factors and (2) the subjective interpretative framing or experience of these events. That is, a predisposing life experience is not just an objective event, but an event that is given interpretation/significance by an individual. With ‘significance’, we refer to the subjective meaning and value an individual ascribes to an event/situation. While some events are not ascribed a specific psychological meaning, other events may become meaningful within a person’s life, and have an impact on the person’s functioning, even if the person is not necessarily aware at any given time of the impact this event is having. These events can either be experienced as negative or positive (see below). This implies that such events do not necessarily need to be objectively major but need to become subjectively major or important in order to play a causal role in the process toward (violent) extremism. In other words, seemingly small ordinary events can also be given crucial weight in the (violent) extremism process. Additionally, although most existing models describe predisposing life experiences as negative (e.g. feelings of frustration, injustice, hatred), we believe these experiences can also be positive. For example, having a close relationship with a family member or friend, or meeting someone who is already part of a (violent) extremist in-group.

In line with the analysed models, we believe predisposing life experiences may cause an individual to question his/her certainty in previously held beliefs and self-concept by strengthening or weakening certain psychological or psychosocial needs, goals or vulnerabilities. Examples are a longing for justice (Hamm & Spaaij, 2015; Sageman, 2004, 2008; Van der Valk & Wagenaar, 2010), the need to belong, to be secure, to have control, or the need for significance (Kruglanski et al., 2014; Winter & Feixas, 2019). Important to note is that, although predisposing life experiences occur earlier in a person’s developmental trajectory, they can modulate the experience of later situations or life events and thus have a lasting impact on an individual. In other words, predisposing life experiences are always causally involved in the onset of (violent) extremist or supportive behaviour. This implies that the objective timing of an event may be less important than the subjective ‘actualisation’ of the event by the individual. That is, an early-life event can become subjectively important only later in life.

This formulation shows that an insider perspective is necessary to understand how this part of the process toward (violent) extremism unfolds. It also shows that this process is

not deterministic. More specifically, when and how predisposing events are encoded as 'predisposing life experiences', and thus are given significance by the individual, will differ from one person to another and may even change within an individual over time. For example, it is possible that a certain life event or factor at time X has no or only limited impact on an individual, while at time Y, this same event or factor becomes encoded as a predisposing life experience by the individual. The intra-individual differences regarding 'how' events are experienced, may depend on, for example, the impact of one's (social) context, the personal socialization history and one's personal functioning characteristics such as the subjective state or mind-set of an individual. In this context, King and Taylor (2011) argue that researchers should pay more attention to personal functioning characteristics⁵, as they may explain why so many people are confronted with (common) predisposing life events, but only a few of them initiate the journey toward (violent) extremism. In order to explain the inter-individual differences, however, we believe it is important to examine the experience of external factors (e.g. life events, social contexts, group dynamics) and their impact on the individual over time. Therefore, a dynamic and non-linear process model of personal functioning could be the better way to understand the relative inter- and intra-individual variability at play.

The (lasting) impact of these predisposing life experiences on an individual may, at a certain point, result in a cognitive opening. In line with the analysed models, we believe a cognitive opening is necessary for an individual to open up to, and eventually identify with, a (violent) extremist ideology and in-group. According to our theoretical model, cognitive openings operate as '*cognitive mediators*'. With a cognitive mediator, we refer to '*mental processes or activities that take place between the occurrence of a stimulus and initiation of an associated response*' (Cameron & Jago, 2013: 451). In the case of (violent) extremism, this means that predisposing life experiences might cause an individual to identify with a (violent) extremist group and its ideology (see infra) via a cognitive opening. According to Cameron and Jago (2013) such psychological processes can occur consciously or unconsciously, and can take place either immediately after the stimulus, or after a longer period of time (after days, weeks, ...). Consistent with this, we believe that a cognitive opening can either occur immediately after a predisposing life experience, or only after a longer period of time due to the experience of, for example, a triggering life event or the impact of the individual's social context.

However, contrary to some of the linear phased models that seem to consider joining and identifying with a violent extremist in-group and its ideology as a 'natural' or 'deterministic' result of a cognitive opening, our analysis suggests it is a 'possible but not necessary' outcome. After a cognitive opening is triggered, this may also become a stable aspect of personal functioning without necessarily leading to the identification of the individual with a (violent) extremist in-group and its ideology. In other words, the point at which a cognitive opening occurs, the time period of such a process, the number of cognitive openings an individual experiences, and the result of such a cognitive opening, will depend on the experience of external events and/or factors and their impact on an individual in time.

According to our integrated theoretical model, an individual may actively affiliate with a (violent) extremist in-group (i.e. the individual seeks connection with an in-group) or passively (i.e. an in-group tries to recruit an individual). Taking into account the group of lone wolves, this affiliation can take place in the real world or online. In line with the

analysed models, we believe the individual's pre-existing social network (e.g. like-minded friends or family members) or recruiting members of the (violent) extremist in-group may play an important role in encouraging and facilitating the adoption of (violent) extremist worldviews, thereby accelerating the identification process of the individual with the violence-legitimizing in-group and its ideology. Once the individual becomes fused with the in-group and its ideology, personal goals become group goals and the individual can become increasingly willing to engage in group-supporting behaviour in order to protect the in-group (Atran, 2016). During this process, the individual will close his/her mind to other views and important goals (Kruglanski, 2015; Atran, 2016). This process takes place over time and differs from one person to another.

Important is that, unlike most other models, we believe this fusion with the in-group and its ideology does not necessarily imply that an individual always has to be 'completely' ideologically indoctrinated or that he/she must sympathize with the 'full' ideology and its objectives (e.g. the creation of an Islamic State). More specifically, an individual's motivation to commit or support acts of (violent) extremism can also include the desire to belong or to be someone, money or power, friendship or loyalty to a significant other (Khalil et al., 2019). In these cases, the individual will fuse with the in-group and its ideology as a 'means' to pursue and protect these goals or sacred values.

This fusion of an individual with a violence justifying in-group and ideology may, at a certain point, result in (violent) extremist behaviour. Again, however, we understand this as a possible rather than a deterministic outcome. For example, an individual may support violence (e.g. by financing weapons, providing shelter) without being willing to actively participate in it. In addition, it is possible that a person initially indicates that he/she is willing to use violence, but later on retracts this decision out of fear or due to changed values or goals (or by focusing on other means to pursue these goals). In other words, whether an individual will take the eventual step toward violence or not, will depend on the experience of external factors (e.g. life events, opportunity factors, triggering events, group dynamics) and their impact on the individual (e.g. on one's goals, sacred values, beliefs, affects, emotions) in time.

Discussion: implications of our integrated theoretical model of (Violent) extremism

Understanding and explaining the process toward (violent) extremism as a *dynamic and non-linear* process, rather than a deterministic and linear phased process, has several implications for how we should understand and respond to this phenomenon.

First, as (violent) extremism is a dynamic rather than a deterministic process, the time period, number and impact of the different single factors⁶ may differ in each individual pathway. In addition, we believe the process can be accelerated, delayed, stopped or even reversed due to the impact of external and internal factors and mechanisms on the individual. As a result, there are *multiple individual pathways* toward (violent) extremism.

Second, understanding the process toward (violent) extremism in this way offers a way out of the aforementioned *beliefs-action* debate and the conceptual fuzziness within (violent) extremist literature. More specifically, as indicated in our integrated theoretical model, it is possible that an individual holds (violent) extremist ideas and values,

without ultimately resulting in violent extremist behaviour. In such cases we believe that, for example, certain goals or values of an individual (e.g. taking care of the family, building a career, ...) may have 'blocked' the use of violence, or made it less attractive. Conversely, an individual may support or contribute to (violent) extremism after having joined an in-group and its ideology, without this person necessarily being 'fully' ideologically indoctrinated or sympathizing the same extreme ideas and values (Khalil et al., 2019). The intrinsic motivation for the violent actions in these cases is rather, for example, the desire to belong or to be someone, money or power, fear or loyalty to a significant other. The individual will fuse with the in-group and the violence-legitimizing ideology in an attempt to achieve these goals.

Based on these results, it seems – both for practice and research – necessary to differentiate between groups from an outsider perspective. In line with the work of Khalil (2017), we could, for example, make a distinction between *non-violent extremists* (i.e. individuals holding extreme ideas and values, but who do not support violence to pursue these ideals), *supporters of violent extremism* (i.e. individuals supportive of both the extreme ideals and the violent means to pursue them. This group may or may not eventually resort to violence), and *contributors to violence* (i.e. individuals who commit violence or contribute to its creation, but who do not necessarily hold the same extreme ideas or values as the two other groups). We should take into account, however, that within each subgroup many different factors and processes can be at play from an insider perspective (e.g. different personal goals). Future research should focus on the differences between these groups.

Third, given the dynamic, non-deterministic and individual character of (violent) extremism, the process toward (violent) extremism is actually very 'unpredictable' and sometimes even 'invisible' from an outsider perspective. More specifically, it is very difficult to observe or predict 'if' and 'when' someone who has identified with a (violent) extremist in-group and its ideology will actively accept the use of violence since this is part of an autonomous, intrapsychic system. For the individual, the process from 'thinking' to 'acting' will be experienced as 'obvious' or conclusive from a psychological choice process. From an outsider perspective, however, this cannot be observed as this occurs psychologically. As such, from an outsider perspective, there will always be a leap from 'ambivalent thinking' to 'extremist thought', and from 'being non-violent' to 'committing violence'. This gap was also clearly identified in the analysis of the different models of (violent) extremism. Each model suggests that an individual identifies with a violence-justifying group and its ideology before committing violence. What happens in between, however, remains unexplained by the models. As such, it may become difficult from a prevention and risk assessment point of view to know 'when' and 'how' to intervene, to validly assess individual threat levels, and to select effective deradicalisation strategies. However, according to our analysis, it should be possible from an outsider perspective to capture certain elements that may play a decisive role before actively accepting the use of violence. Some examples are the presence and impact of predisposing life events, the presence and role of social networks in an individual's life, 'changes' or irregularities in daily personal functioning and more generalized violence-supportive attitudes. Both academics and social workers should also explore the underlying psychological and psychosocial goals, needs, and vulnerabilities that drive people to engage in certain behaviour, in this case (violent) extremism.

Finally, accepting the dynamic and non-linear character of the process toward (violent) extremism has also important methodological consequences. More specifically, unravelling the different pathways toward (violent) extremism cannot (only) be achieved by looking at what an individual ‘does’ (from an outsider perspective). As mentioned, we believe this can only be fully captured by talking to individuals who are or have been (violent) extremist, and by paying attention to what they think, feel, want (and this within their social context) and how this evolved over time (De Pelecijn et al., 2021). We believe that such an approach is urgently needed in order to advance our scientific understanding on how individuals become (violent) extremists.

Conclusion

Trying to understand (violent) extremism from a scientific, criminological-psychological point of view, both generates and frustrates our need to understand why an individual may think that, for example, a suicide-mission is a valid course of action, and how this belief has taken root. Despite the extensive amount of (violent) extremism literature, there are still several knowledge gaps apparent that hinder us from developing a complete, unambiguous understanding of (violent) extremism. More specifically, there is still no consensus regarding the key causal factors underlying (violent) extremism and the way in which this phenomenon occurs and progresses over time. Therefore, the aim of this article was to address these core questions and develop an integrated theoretical model of (violent) extremism based on already existing models. Based on a scoping review of 1856 records, we analysed ten models of (violent) extremism using the ‘theory knitting approach’. This approach allows us to ‘knit together’ what is already known about (violent) extremism with our own results into an integrated theoretical model, rather than starting from a completely different angle and isolating existing models. As this methodology has not yet been applied within the (violent) extremism research field, our approach is rather unique.

According to our integrated theoretical model, (violent) extremism is a dynamic and non-linear process, resulting from the interaction between external and internal (causal) factors and its impact on the individual over time. As this process has multiple pathways and multiple potential outcomes, the end point should not necessarily be ‘the use of violence’. An implication of the invisibility of the different psychological processes, is that it makes threat assessment and risk prediction very difficult. The point at which an individual eventually resorts to violence cannot be observed nor predicted from an outsider’s perspective. We therefore believe it is crucial to capture both an outsider and insider perspective in order to fully understand the process toward (violent) extremism. More specifically, researchers should translate the different psychological processes into a manageable instrument that can be used by an external observer. In order to do so, there seems to be no other way than ‘talking to individuals’ to capture how goals, cognitions, emotions and (self-)regulatory processes in interaction with triggering (predisposing) life experiences conspire toward – or move away from – (violent) extremism (De Pelecijn et al., 2021).⁷

Searching how to map an inherently dynamic, non-linear process onto a ‘workable’, linear or phased model becomes a pragmatic issue (albeit not an explanatory one). Although each of the different analysed models provide an explanation of how

(violent) extremism works, we believe that our integrated theoretical model gives even more insight into the ‘complete picture’ of (violent) extremism as it focuses on multiple levels of theory and captures both an outsider and insider perspective on (violent) extremism. As such, our integrated model may be a useful tool for both researchers and practitioners to better understand and manage (violent) extremism.

Notes

1. As we refer to both violent and non-violent extremism, we put ‘(violent)’ in parentheses.
2. In the work of Ward and Siegert (2002), the authors refer to a level I analysis, a level II analysis and a level III analysis. In this context, we could place our ‘why-question’ on level I and II, and the ‘how-question’ on level III. See also Ward & Hudson, 1998.
3. We do not include working papers/pre-prints or research notes.
4. 305 records on Proquest, 189 records on Web of Science, 287 records on Scopus, 895 records on Google Scholar and 180 records on Tandfonline.
5. We should stress that a more classical perspective on personality functioning – stressing the temporally and situationally stable presence of personality characteristics (traits) or even psychopathology – would lead us back to a more deterministic view of predisposing life experiences, and thus back to the unresolved issues identified previously. The non-linear aspects of the (violent) extremism process can only be conceptualised when taking a dynamic process model of personal functioning as a starting point.
6. Except for the violence-justifying in-group and ideology, we do not consider these key factors specific to their effect. For example, a predisposing life experience(s) is one of the codetermining factors of (violent) extremism. However, it is not specific to it as such predisposing life experiences may also play a causal role in other types of crime. On the other hand, experiencing predisposing life events does not automatically lead to (violent) extremism.
7. Our integrated theoretical model is currently being tested on the basis of in-depth interviews with (violent) extremist individuals and family members of (violent) extremist persons. On the basis of these data, we will test (and possibly reject or thoroughly revise) our model and evaluate it according to theory appraisal criteria (e.g., coherence, simplicity, depth, empirical adequacy).

Data availability statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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