Freie Universität Berlin Fachbereich Erziehungswissenschaft und Psychologie

Individual Developmental Dynamics and Biographical Pathways of Salafist-Jihadist Radicalization

Dissertation

zur Erlangung des akademischen Grades

Doktorin der Philosophie (Dr. phil.)

Vorgelegt von

Mika Josephine Moeller, M.A.

Datum der Disputation: 26.01.2023	
Erstgutachter:	
Prof. Dr. phil. Herbert Scheithauer	
1	
Zweitgutachter:	
Prof. Dr. phil. Phil C. Langer	
Tioi. Di. piiii. Fiiii C. Langei	

Danksagung

Danksagung

Auf meinem wissenschaftlichen Weg und während dieser Arbeit haben mich verschiedene Personen inspiriert, motiviert und unterstützt, denen ich von Herzen dankbar bin.

Mein Dank gilt Dr. Wibke Hachmann, die maßgeblich an meiner Begeisterung für das wissenschaftliche Arbeiten beteiligt war. Mit ihr während meines Masterstudiums zu arbeiten und von ihr zu lernen, hat den Grundstein für meinen wissenschaftlichen Weg gelegt, den ich seitdem verfolge.

Während des Beginns meines Promotionsprojektes und im weiteren Verlauf hat vor allem mein Zweitgutachter Prof. Dr. Phil C. Langer mich ermutigt, eigene Wege zu gehen und neue Ansätze zu verfolgen. Dafür, aber auch für die fachliche Beratung, kritische Reflexionen sowie die Möglichkeit der Lehrtätigkeit bin ich sehr dankbar.

Meinem Erstgutachter, Prof. Dr. Herbert Scheithauer möchte ich meinen besonderen Dank für die Betreuung meiner Dissertation aussprechen. Ich danke Ihnen vor allem für Ihre stets verbindliche und fördernde Unterstützung, Ihren Rat und dafür, dass Sie mir immer zur richtigen Zeit das Gefühl gegeben haben, dass der eingeschlagene Weg auch trotz mancher Widrigkeiten der Wissenschaft der richtige ist.

Für die zahlreichen Möglichkeiten zum Austausch, für kritische Diskussionen und Reflexionen oder gemeinsame Interpretationen danke ich vor allem meinen ehemaligen Kolleg:innen und Freund:innen vom Zentrum Technik und Gesellschaft und besonders Christoph Nagel, Andrea Protschky und Robert Linke-Wittich, sowie den Teilnehmer:innen des Promotionskolloquiums und Forschungsmethoden Seminars der International Psychoanalytic University.

Dass ich dieses Promotionsprojekt in diesem Umfang umsetzen konnte, verdanke ich der Stiftung zur Förderung der universitären Psychoanalyse, die mir dies mit einem Promotionsstipendium ermöglichte.

Ein Kernstück dieser Arbeit sind die verschiedenen Datengrundlagen. Für das entgegengebrachte Vertrauen bin ich besonders den Personen zu Dank verpflichtet, die Ihre Erfahrungen und Lebensgeschichten mit uns geteilt haben. Für die gemeinsame Datenerhebung und die Zusammenarbeit danke ich allen Kolleg:innen der Verbundforschungsprojekte PANDORA und PrADera und den an der Erhebung, Aufarbeitung, Transkription oder gemeinsamen Interpretationssitzungen beteiligten ehemaligen studentischen Mitarbeiter:innen: Carsten, Emilia, Andra, Sami, Larissa, Jonatan und Barbara.

Meinen Freund:innen und meiner Familie, allen voran meinen Eltern und meinen beiden Brüdern gilt mein tiefster Dank für so viel mehr, aber im Besonderen auch für die Unterstützung und den Rückhalt während der Zeit dieses Promotionsprojektes.

Widmung

Für

Tarik und Luka

Table of Content

List of Tables	VI
List of Figures	VII
Abstract	VIII
Zusammenfassung	X
1 General Background	1
1.1 Introduction	1
1.1.1 Research Puzzle	3
1.1.2 Dissertation Project Aims	4
1.2 Theoretical Background	8
1.2.1 The Phenomenon of Salafist-jihadism	8
1.2.2 Salafist Jihadism and its Relevance in Germany	9
1.2.3 Salafist Movements in Germany	10
1.2.4 Conceptualization of Radicalization	11
1.2.5 From Disengagement to Potential Re-engagement	14
1.2.6 Prevention and Intervention Approaches in Germany	16
2 Developmental and Biographical Issues in Radicalization Pathways: A Compa	rative Case
Analysis of Homegrown German Convicts of Islamist Terrorism-Related Offense	s19
2.1 Abstract	19
2.2 Introduction	20
2.2.1 The Present Study	21
2.3 Materials and Methods	22
2.3.1 Case Selection	
2.3.2 Analytical Approach	23
2.4 Results	
2.4.1. Description of the Sample	
2.4.2 Description of the Categories	
2.4.3 The Interplay between Biographical Issues and Developmental Phases	
2.5 Discussion and Implications	
2.5.1 Conclusion	
2.5.2 Limitations and future research	42
2.6 References	11

3 Germany: Individual Variations in Relational Mechanisms of Radicalization	51
3.1 Introduction	52
3.2 Salafism in Germany and the Genesis of a Salafi-Jihadist Tendency	55
3.3 The Millatu Ibrahim Group: Relational Factors of Radicalization	57
3.3.1 Activities and Ideology: The Idea of Probation	58
3.3.2 Interaction with External Events and Adversaries	59
3.3.3 Individual Sense-Making in the Face of Repressive Events: Two Case Studies	62
3.4 Discussion	68
3.5 Conclusion	70
3.6 References	72
4 Study 3: Motivational Dynamics of German Salafist Jihadists: A multi-methodical in	! -
depth study of three paradigmatic cases	76
4.1 Abstract	76
4.2 Introduction	77
4.2.1 The present Study	78
4.3 Materials and Methods	79
4.3.1 Data collection	79
4.3.2 Analytical Approach	80
4.3.2.1 Reconstruction of biographical Pathways	81
4.3.2.2 Reconstruction of the lived Experiences	82
4.3.2.3 Psychoanalytically informed Interpretation of the lived Experiences	83
4.3.2.4 Triangulation Process	84
4.4 Results	85
4.4.1 Keythemes	85
4.4.2 Case Reconstructions	87
4.5 Discussion and Conclusion	97
4.5.1 Discussion of Intrapsychic Phenomena	98
4.5.2 Discussion of Implications	102
4.5.3 Limitations	103
4.6 References	105
5 General Discussion	110
5.1 Methodological Reflection and Limitations	114
5.2 Implications for Policy, Practice future Research	116
6 Conclusion	119
References	120

Table of Content V

Funding Sources	132
Curriculum Vitae	133
List of Publications	135
Eigenanteil an den Manuskripten	136
Selbstständigkeitserklärung	137

List of Tables VI

List of Tables

Table 2.1: Biographical issues experienced by primary caregivers of individuals	
who were later convicted of a TRO	28
Table 2.2: Mental and physical health issues experienced by individuals who were later convicted of a TRO	29
Table 2.3: Experiences related to institutional norms of individuals who were later convicted of a TRO	
Table 2.1: Experiences related to partnership and family of individuals who were later convicted of a TRO	31
Table 2.2: Experiences related to religion and activism of individuals who were later convicted of a TRO	32
Table 2.3: Experiences related to police interventions of individuals who were later convicted of a TRO	33

List of Figures VII

List of Figures

Figure 1.1: Methodical approaches of the three separate empirical studies of the	
present cumulative dissertation project on individual developmental dynamics and	
biographical pathways of radicalization	6
Figure 2.1: Beginning of the engagement in Islamist TRO of 45 homegrown	
Germans convicted of TRO.	26
Figure 2.2: Biographical experiences and related developmental psychological	
phases of individuals who were convicted of a TRO	34
Figure 3.1: Timeline of Events Related to Millatu Ibrahim and Total Number of	
Videos Posted on its Website, Al-Ghorabaa	60
Figure 4.1: Multi-methodical case reconstruction of three paradigmatic cases of	
Salafist-jihadist (de)radicalization.	89

Abstract

Abstract

A more holistic understanding of (de)radicalization processes is relevant not only in terms of potential threat assessment, but also for the further development of appropriate prevention and intervention approaches, as well as for post-release reintegration measures for individuals convicted of a terrorism-related offense. Despite the high interest in the topic, radicalization research is often dominated by theoretical models, limited access to primary data, or methodological issues, such as missing transparency or analytical rigor. This dissertation aims to identify patterns and characteristics of individual developmental dynamics and biographical pathways of Salafist-jihadist (de)radicalization of German homegrown individuals and to explore influences, determinants, or conditions that played a role in these processes.

Based on court files of 45 homegrown German individuals convicted of a terrorism-related offense, social media video contributions of a German Salafist-jihadist group and two of its leading figures, and narrative interviews with three homegrown German former convicts of terrorism-related offenses, three separate primary research studies were conducted.

The first study provides new information on how different biographical pathways have led to the same outcome of committing a terrorism-related offense and how specific vulnerabilities are related to certain psychological developmental phases. Court files were qualitatively analyzed using open, selected, and focused coding, and constant case comparison. Identified patterns are visually represented and measured using odds ratios. The study answers the research question of what patterns in the individual developmental and biographical pathways of German individuals convicted of Islamist terrorism-related offenses can be identified based on biographical experiences. The results indicate relevant topics for prevention and intervention approaches and in which psychological developmental phase they should be best addressed.

Although no causal correlation is assumed, conflictual interactions with authorities and counterparts can influence radicalization processes. Therefore, in the second study, the varying responses of members of the German Salafist-jihadist group Millatu Ibrahim to conflictual situations with authorities and countermovements were analyzed at both the group and individual level. Two different types of presented sense- and meaning-making processes of external pressure and conflictual situation of two leading figures of the group could be identified through in-depth case analyses: One resulting in continuity of activism and one resulting in joining a terrorist group abroad. The study contributes to the main research question on how members of the radical group Millatu Ibrahim responded to conflictual interactions.

Abstract

The results are interpreted and discussed within the framework of Social Movement Theory and in particular della Porta's theory of clandestine violent groups emerging from broader social movements.

In the third study, based on three narrative interviews of homegrown German former convicts of terrorism-related offenses, biographical pathways of (de)radicalization, decision-making processes, and relevant intrapsychic phenomena could be reconstructed per case and illustrated in a visual representation. A unique multi-methodical qualitative research approach combining biographic reconstruction, thematic analysis, in-depth hermeneutics and concluding research vignettes was developed to analyze what drives (former) Salafist-jihadist in their lives, how they see their agencies in decision-making, and what we can learn about individuals' radicalization and disengagement from terrorism on that base. By triangulating the reconstruction of biographical pathways, lived experiences, and a psychoanalytically informed interpretation of those, three different characteristic intrapsychic and motivational dynamics could be derived. By analyzing what influences a person's decision-making and behavior over the course of a lifetime, this study contributes to an overarching understanding of why different individual factors lead to the same outcome of joining terrorist organizations in some cases, while the same factors do not in many others.

The results contribute to a holistic understanding of (de)radicalization processes including the lifetime from birth until after deradicalization. The findings of this dissertation indicate the need for age specific prevention approaches, which should be implemented in the framework of school, since it could be shown that especially childhood and adolescence are vulnerable phases for further development. The phenomenon of (de)radicalization should be considered in the specific context of the country in which the process takes place. Furthermore, the importance of implementing supportive psychotherapeutic and psychodynamic measures is empathized. Implications for prevention and intervention approaches and future research are discussed.

Zusammenfassung X

Zusammenfassung

Ein ganzheitliches Verständnis von (De-)Radikalisierungsprozessen ist nicht nur im Hinblick auf die Einschätzung potenzieller Bedrohungen von Bedeutung, sondern auch für die Weiterentwicklung geeigneter Präventions- und Interventionsansätze sowie für Maßnahmen zur Wiedereingliederung von aus der Haft entlassenen Personen, die wegen einer terroristischen Straftat verurteilt wurden. Trotz des großen Interesses an dem Thema wird die Radikalisierungsforschung häufig von theoretischen Modellen, begrenztem Zugang zu Primärdaten oder methodischen Herausforderungen wie mangelnder Transparenz oder analytischer Strenge dominiert. Ziel dieser Dissertation ist es, Muster und Charakteristika individueller Entwicklungsdynamiken und biografischer Verläufe salafistischdschihadistischer (De-)Radikalisierung von in Deutschland aufgewachsenen Personen zu identifizieren sowie Einflüsse und Bedingungsfaktoren zu untersuchen, die bei diesen Prozessen eine Rolle spielten.

Es wurden drei separate Primärforschungsstudien auf Basis unterschiedlicher Daten durchgeführt: Gerichtsakten von 45 in Deutschland aufgewachsener Personen, die wegen einer terroristischen Straftat verurteilt wurden, social-media-Videobeiträge einer deutschen salafistisch-dschihadistischen Gruppe und zwei ihrer leitenden Führungspersonen sowie narrative Interviews mit drei in Deutschland aufgewachsener Personen, die wegen terroristischer Straftaten verurteilt.

Die erste Studie liefert neue Informationen darüber, wie unterschiedliche biografische Verläufe zum gleichen Ergebnis, der Begehung einer terroristischen Straftat, geführt haben und wie spezifische Vulnerabilitäten mit bestimmten psychologischen Entwicklungsphasen zusammenhängen. Die Gerichtsakten wurden mittels *open, selected und focused coding* und konstantem Fallvergleich qualitativ analysiert. Die identifizierten Muster wurden visuell dargestellt und Stärken des Zusammenhangs mittels Odds Ratios gemessen. Die Studie beantwortet die Forschungsfrage, welche Muster in den individuellen Entwicklungs- und biografischen Verläufen von Personen, die in Deutschland aufgewachsen sind und wegen islamistischer terroristischer Straftaten verurteilt wurden, aufgrund biografischer Erfahrungen identifiziert werden können. Die Ergebnisse geben Hinweise darauf, welche Themen für Präventions- und Interventionsansätze relevant sind und in welcher psychologischen Entwicklungsphase diese am besten adressiert werden sollten.

Obwohl kein kausaler Zusammenhang angenommen wird, wird davon ausgegangen, dass konflikthafte Interaktionen mit Behörden oder Gegenbewegungen Radikalisierungsprozesse von Gruppen und Individuen beeinflussen können. In der zweiten

Zusammenfassung XI

Studie wurden daher unterschiedliche Reaktionsmuster von Mitgliedern der deutschen salafistisch-dschihadistischen Gruppe Millatu Ibrahim auf Konfliktsituationen mit Behörden und Gegenbewegungen sowohl auf der Gruppen- als auch auf der Individualebene analysiert. Durch vertiefende Fallanalysen wurden zwei unterschiedliche Typen medial präsentierter Sinnund Bedeutungsfindungsprozesse im Umgang mit äußerem Druck und konflikthafter Situation zweier Führungspersonen der Gruppe identifiziert: In einem Fall führte dies zur Kontinuität des Aktivismus und in einem anderem zum Beitritt einer terroristischen Vereinigung im Ausland. Die Ergebnisse werden im Rahmen der Theorie sozialer Bewegungen und insbesondere der Theorie della Portas zu klandestinen gewalttätigen Gruppen, die aus breiteren sozialen Bewegungen hervorgehen, interpretiert und diskutiert.

In der dritten Studie wurden auf der Grundlage von drei narrativen Interviews mit Personen, die in Deutschland aufgewachsen sind und wegen terroristischer Straftaten verurteilt wurden, biografische Verläufe der (De-)Radikalisierung, Entscheidungsprozesse und relevante intrapsychische Phänomene pro Fall rekonstruiert und in einer visuellen Darstellung veranschaulicht. Ein einzigartiger multimethodischer qualitativer Forschungsansatz, der biografische Rekonstruktion, thematische Analyse, Tiefenhermeneutik und zusammenfassende Forschungsvignetten kombiniert, wurde entwickelt, um zu analysieren, was (ehemalige) salafistische Dschihadisten in ihrem Leben antreibt, wie sie ihre Selbstwirksamkeitsanteile bei der Entscheidungsfindung wahrnehmen und was wir auf dieser Grundlage über die Radikalisierung von Individuen und den Ausstieg aus dem Terrorismus lernen können. Durch die Triangulation der Rekonstruktion biografischer Verläufe, gelebter Erfahrungen und einer psychoanalytisch informierten Interpretation dieser Erfahrungen konnten drei verschiedene charakteristische intrapsychische und motivationale Dynamiken abgeleitet werden. Durch die Analyse der Faktoren, die die Entscheidungsfindung und das Verhalten einer Person im Laufe ihres Lebens beeinflussen, trägt diese Studie zu einem übergreifenden Verständnis der Frage bei, warum unterschiedliche individuelle Faktoren in einigen Fällen zum gleichen Ergebnis, nämlich dem Beitritt zu oder der Unterstützung terroristischen Organisationen, führen, während dieselben Faktoren in vielen anderen Fällen nicht dazu führen.

Die Ergebnisse dieser Dissertation tragen zu einem ganzheitlichen Verständnis von (De)Radikalisierungsprozessen bei, das die gesamte Lebensspanne von der Geburt bis nach der
Deradikalisierung umfasst. Die Ergebnisse dieser Dissertation weisen auf die Notwendigkeit
altersspezifischer Präventionsansätze hin, die bereits im schulischen Kontext umgesetzt werden
sollten, da gezeigt werden konnte, dass insbesondere die Kindheit und die Adoleszenz
vulnerable Phasen für die weitere Entwicklung sind. Zudem sollte das Phänomen der

Zusammenfassung XII

(De-)Radikalisierung im spezifischen Bezugsrahmen des Landes, in dem diese Prozesse stattfinden, betrachtet werden. Darüber hinaus wird die Bedeutung der Implementierung unterstützender psychotherapeutischer und psychodynamischer Maßnahmen in der Präventions- und Interventionsarbeit hervorgehoben. Implikationen für Präventions- und Interventionsansätze sowie weiterführende Forschung werden erläutert und diskutiert.

1.1 Introduction

Over the past decade, the Salafist scene in Germany and thus also the threat situation has undergone some dynamic and structural changes. Since the beginning of the civil war in Syria in 2011, the Salafist movement has experienced a massive increase in number and activity and represents the largest Islamist movement in Germany. Despite a decline in Islamist potential in 2021 by 1.5% from the previous year to 28,290 persons, of whom 11,900 (2020: 12,150) are considered to belong to the Salafist spectrum, the German Federal Office for the Protection of the Constitution (in German Bundesamt für Verfassungsschutz) continues to assess the threat potential as high (Bundesamt für Verfassungsschutz, 2022, pp. 179-180). Germany also plays an important role in the involvement and support of Islamist terrorist groups abroad (Radicalisation Awareness Network, 2017; The Soufan Group, 2015, p. 12). Especially with the wave of departures of German foreign fighters to the war and crisis zones in Syria and Iraq, several challenges have emerged. One of the main challenges is that radicalization and deradicalization processes are still not sufficiently understood, which is due to the high heterogeneity and a lack of empirical data and studies. As a result, mainly theoretical models have dominated previous research. A deeper understanding of radicalization processes and various outcomes is also necessary to implement effective prevention approaches. Considering that one third of German foreign fighters have already returned to Germany and that numerous supporters of terrorist groups are currently in prison, a deeper understanding of the phenomenon that also includes processes of disengagement and deradicalization is also important in terms of intervention approaches and reintegration into society.

Central guiding questions in radicalization research have since been why and how some individuals (from western countries) adapt a radical political or religious position and sometimes engage in violent extremism, while others do not or later disengage or distance themselves from it.

This cumulative dissertation contributes to a deeper understanding of individual dynamics and pathways of (de)radicalization by presenting three separate empirical studies based on different databases and methodical approaches and addressing different research questions and depths of understanding. The conducted empirical studies are published in high-ranked journals in the field of terrorism: *Terrorism and Political Violence (impact factor*: 2.562), in the field of psychology: *Frontiers in Psychology (impact factor*: 4.232), and in the

field of radicalization in the peer-reviewed reference book *Radicalization in Theory and Practice* published by the University of Michigan Press and edited by Thierry Balzacq and Elyamine Settoul.

This dissertation project is based on selected data collected within the national research projects "PANDORA-Propaganda, mobilization, and radicalization toward violence on social media and reality", which was funded by the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung) from 2017 to 2020 and "PrADera-Practice-oriented analysis of deradicalization processes" which was funded by the Federal Ministry of the Interior and for Home Affairs (Bundesministerium des Innern und für Heimat) from 2018 to 2020 as part of the National Prevention Program against Islamist extremism (Nationales Präventionsprogramm gegen islamistischen Extremismus).

The structure is as follows: First, the research puzzle and the aims of the dissertation are deduced, followed by presenting the overall methodical framework of the three conducted studies and the research questions. A theoretical background is given on the phenomenon of Salafist jihadism, its relevance in Germany, and the conceptualization of radicalization processes as well as conceptual distinctions in the field of disengagement from terrorism. Then an overview of prevention and intervention approaches is presented. In Chapter 2, based on court files, a mixed-methods study on developmental and biographical issues in radicalization pathways of individuals convicted of Islamist terrorism-related offenses is presented (published in Terrorism and Political Violence). Focusing on social media data, a qualitative study on individual variations in relational mechanisms of radicalization of the German Salafist-jihadist group Millatu Ibrahim and two guiding figures is presented in Chapter 3 (published in Radicalization in Theory and Practice). In Chapter 4, first, the mixed-methods approach of the third study that combines thematic analysis with a psychoanalytic informed interpretation of narrative interviews with German former convicts of Islamist terrorism-related offenses is outlined. The motivational dynamics of three former Salafist jihadists are presented in the form of a multi-methodical in-depth study (published in Frontiers in Psychology). The findings of the three studies are synthesized and discussed in Chapter 5. Additionally, the strengths and limitations of the conducted studies and the methodological approaches are critically reflected. Finally, the resulting implications for prevention and intervention approaches and future research in the context of Salafist-jihadist (de)radicalization are provided.

1.1.1 Research Puzzle

Especially in the past decade, radicalization research has gained importance and evolved. However, it still faces some challenges. These are, for example, methodological issues as limited access to primary sources (see, e.g., Leimbach, 2020; Schuurman, 2019), or missing transparency and rigor (see, e.g., Morrison, 2020; Neumann & Kleinmann, 2013). Influenced by the need for effective prevention and intervention measures on the state side and a general need for government funding and resources on the research side, research on radicalization and terrorism often tends to be event-driven and closely linked to the interests of states (see, e.g., Gunning, 2007; Schuurman, 2019, p. 464). Consequently, in disciplinary terms, the political and social sciences are currently predominantly represented in radicalization research. But to improve measures of prevention and intervention, a broader understanding and deeper insights into the processes of radicalization and deradicalization are necessary (Lösel et al., 2018).

A relation between age and turning to or disengagement from Islamist extremism is frequently observed (Bjørgo, 2011; Bjørgo & Horgan, 2008; Bundeskriminalamt et al., 2016; Carlsson et al., 2019; Horgan, 2009b; Wolfowicz et al., 2020). However, due to the lack of holistic and empirical research that includes an individual's lifetime before radicalization (and after disengagement from extremism), little is known about the significance of the interplay between biographical pathways and age in the process of (de)radicalization. This is also associated with a lack of understanding of how certain vulnerabilities in the life course of extremists are related to specific developmental psychological phases. A deeper understanding is necessary to be able to better implement age- and needs-oriented prevention and intervention measures.

It is known that expressed problems with police or criminal justice agencies may be associated with a higher risk of developing sympathies for violent protest and terrorism (Bhui et al., 2016, p. 487) and that encounters with such agencies can impact radicalization processes, especially if they are perceived as unreasonable or unjust (della Porta, 2018, p. 464). However, little is known about how such interactions influence the radicalization process and how individuals react to it.

Due to the lack of accessible empirical data, radicalization research is often dominated by an overrepresentation of individuals who were actively involved in violent extremism, which biases explanations, and theoretical models, as there are various possible outcomes of radicalization processes (Bartlett & Miller, 2012; Jensen, Atwell Seate, et al., 2020). Theoretical models further attempt to identify practical core motives (see, e.g., Bouzar, 2017) or personal goals to which a person may be committed (see, e.g., Kruglanski et al., 2014), but

4

little is known about what drives individuals who join and/or leave terrorist groups. In this regard, in addition to the question of why and how individuals join or support terrorist groups, another significant question is how and why they leave such groups (Altier et al., 2014). A deeper understanding of the interplay between attitudes, beliefs, and behavior is necessary to better understand (de)radicalization processes as well as risk assessments for potential reengagement in terrorism (Horgan, 2009a, p. 29).

1.1.2 Dissertation Project Aims

The present thesis gathers insights into biographical and developmental pathways of radicalization and deradicalization, focusing on different analytical depths of understanding. This thesis triangulates three separate primary research studies using different methodical approaches developed for three exclusive data sources to contribute to a holistic understanding of (de)radicalization processes. The methodological approaches were adapted to the strengths and weaknesses of the informative value of the respective data sources to answer different research questions. The structure of the studies (Figure 1.1) is based on an inherent logic developed during the research process and is also oriented toward the idea of an iceberg model approach. Based on Freud's personality theory, Ruch and Zimbardo (1975, p. 366) derived a metaphorical iceberg model, which illustrates conscious parts and observable behavior, triggering environmental stimuli, as well as preconscious and unconscious parts. Based on the assumption that the motives underlying individual behavior are largely pre- or unconscious to the individual and that (early) experiences and relationships can determine further development, in this dissertation project it is assumed that the central epistemic interest is to be found not only in the observable and manifest, but also in the unconscious and latent meaning and their interplay.

The first study (Moeller & Scheithauer, 2022) explores the metaphorical surface and aims to give an overview of biographical and psychological developmental pathways of later convicts of terrorism-related offenses. Referring to the German Criminal Code (in German Strafgesetzbuch), in this thesis, terrorism-related offenses (TRO) are defined as convictions for the membership in or support of (foreign) terrorist organizations (§129a; 129b) and/or the planning of serious acts of violence endangering the state (§89). The study focuses on biographical experiences to provide an overview of the biographical and developmental issues of homegrown German convicts of TRO. Based on court files, a multiple case analysis was conducted. A multilevel qualitative research approach was developed that included open, selective and focused coding, constant case comparison (see, e.g., Qureshi & Ünlü, 2020) and

odds ratios. Based on the synthesis of the single cases further, a summarizing visual representation was developed. The study provides new insights into how different biographical pathways have led to the same outcome of engagement in TRO and how specific vulnerabilities are related to certain developmental phases. The results are finally discussed with reference to the current state of research. This study establishes the basis and meta-level for the subsequent studies of this thesis.

The second study (Pelzer & Moeller, 2022) focuses on varying responses of members of a German Salafist-jihadist group to conflictual interactions as well as on processes of its sense- and meaning-making. Referring to the iceberg model, the analytical depth, therefore, goes beyond the surface of the first study (Figure 1.1). The results of the first study (Moeller & Scheithauer, 2022) underline the relevance of activism in Salafist groups in processes of radicalization (see also Vidino et al., 2017). Furthermore, the question arose of how interactions with police and criminal justice agencies, which can also be understood as triggering environmental stimuli, might affect the radicalization process of individuals and movements and how individuals cope with increasing external and internal pressure. The second study explores these questions based on the internet representation of a German Salafist-jihadist group and the self-presentation of two leading figures in social media video contributions. First, an overview of the development of the Salafist scene in Germany is given. The manuscript focuses on the German Salafist-jihadist group Millatu Ibrahim, which also proved to be a relevant group in the context of the first study of this thesis. Millatu Ibrahim is also relevant, as the group was banned after various interactions with police and criminal justice agencies and countermovements, after which a part of the group departed to Syria and Iraq to join terrorist groups, while others stayed in Germany and continued activism. First, the themes and topics of the group's internet representation were reconstructed in relation to real-life events. Second, the sense and meaning making of these events was reconstructed based on in-depth analyses (Bohnsack, 2010; Glaser & Strauss, 1967) of self-presentations via video contributions by one guiding figure who stayed in Germany and one who left to join a terrorist group abroad. The study offers insights into two different types of coping with external pressure by police and criminal justice agencies and internal pressure by religious probation. The results are interpreted within the framework of social movement theory with a focus on della Porta's (2013) theory of clandestine violent groups emerging from broader social movements.

In the first and second study, the question appeared on how (former) Islamist extremists' motivations can be (re)constructed and how they have experienced their biographical pathways of (de)radicalization. Based on three narrative interviews of individuals who joined and/or

supported jihadist groups abroad, it was explored what drives the individuals in their lives, how they see their agencies in decision-making, and what we can learn about individuals' radicalization and disengagement from terrorism on that base. To answer these questions, a multi-methodical approach based on biographical research methods (Rosenthal, 1995; Schütze, 1976), thematic coding (Braun & Clarke, 2006, 2019), in-depth hermeneutics (Haubl & Lohl, 2020; König, 2018; Lorenzer, 2013) and concluding research vignettes (Langer, 2016) was developed that addresses a conscious and unconscious level. Hence, in the sense of the idea of an iceberg model, the third study descends another analytical level (Figure 1.1). A visual representation was developed that illustrates the individual pathways through (de)radicalization, personal agencies, as well as conscious and unconscious intrapsychic and motivational dynamics.

Figure 1.2

Methodical approaches of the three separate empirical studies of the present cumulative dissertation project on individual developmental dynamics and biographical pathways of radicalization

Level of Understanding	Data Source	Main Research Question	Subquestions	Objective	Methodie	cal Approach			
biographical nental issues		What patterns in the individual developmental and biographical pathways of German individuals	What have individuals convicted of islamist	Objective biographical data	biographical			Reconstruction of relevant biographical experiences Reconstruction of relating developmental psychological phases	Open, selective and focused coding; Constant case comparison (Qureshi & Ünlüs)
Overview of biographical and developmental issues	Court files	convicted of Islamist terrorism- related offenses can be identified based on biographical experiences?	terrorism-related offenses experienced in their lifecourses and when?			Triangulation of relevant biographical experiences and relating developmental psychological phases	Odds ratios; Development of a visual representation of identified biographical issues related to the developmental psychological phases		
P0			Did intensifying interactions with adversaries beginning in February 2012 lead to a rise of jihad-and repression- related topics?	Group's representation	Reconstruction of the frequency of topics circulating in postings on Millatu Ibrahim's website	Measuring the frequency of topics			
Sense- and meaning- making	Social media	Social How do members of the radical media group Millatu Ibrahim respond to videos conflictual interactions?	How did the activists perceive and interpret their changing situation, caused by attacks from outgroup socio-political forces?	Self- presentation of leading figures		Qualitative case-analysis (Bohnsack; Glaser & Strauss)			
Sens meaning	videos		What kinds of action did they see as being consistent with their beliefs in face of these changing conditions?						
			Did these interpretations and the appropriate actions derived from them change over time?						
	Wha	Narrative making, and what can we learn about individuals' radicalization	How do the former jihadists see their own agency in different stages of their biography	Lived experiences	Reconstruction of biographical pathways and decision-making processes	Biographic approach (Rosenthal; Schütze)			
0 >	Narrative		How have they perceived their experiences?		Reconstruction of lived experiences and intrapsychic phenomena	Thematic coding (Braun & Clarke)			
	interviews		How did the interviewees express their lived experiences and why in this particular way?		Psychoanalytic induced case interpretation	In-depth hermeneutics (Lorenzer; Haubl; Lohl;			
			What latent meanings can be extrapolated that provide deep insights into the motivational backgrounds of their decisions?			König); Research vignettes (Langer)			

Veldhuis and Staun (2009, p. 3) conclude that a social and individual approach is necessary to understand radicalization processes, as they define them as an "embedded individual process in

which the individual is constantly interacting with his social environment". In this dissertation, both approaches are considered from different perspectives in the three in-depth studies conducted. The results of the studies conducted for this dissertation will be discussed in the context of the overall aim of this dissertation to identify patterns and characteristics of individual developmental dynamics and biographical pathways of Salafist-jihadist (de)radicalization of German homegrown individuals and to explore influences, determinants, or conditions that played a role in these processes. The research questions addressed in this cumulative dissertation project are as follows:

- Study 1: What patterns in the individual developmental and biographical pathways of German individuals convicted of Islamist terrorism-related offenses can be identified based on biographical experiences?
 - 1.1 What have individuals convicted of Islamist terrorism-related offenses experienced in their life courses and when?
- Study 2: How do members of the radical group Millatu Ibrahim respond to conflictual interactions?
 - 2.1 Did intensifying interactions with adversaries beginning in February 2012 lead to a rise of jihad-and repression- related topics?
 - 2.2 How did the activists perceive and interpret their changing situation, caused by attacks from out-group sociopolitical forces?
 - 2.3 What kinds of action did they see as being consistent with their beliefs in face of these changing conditions?
 - 2.4 Did these interpretations and the appropriate actions derived from them change over time?
- Study 3: What drives (former) Salafist jihadist in their lives, how do they see their agencies in decision-making, and what can we learn about individuals' radicalization and disengagement from terrorism on that base?
 - 3.1 How do the former Salafist jihadists see their own agency in different stages of their biography?
 - 3.2 How have they perceived their experiences?
 - 3.3 How did the interviewees express their lived experiences and why in this particular way?
 - 3.4 What latent meanings can be extrapolated that provide deep insights into the motivational background of their decisions?

1.2 Theoretical Background

1.2.1 The Phenomenon of Salafist-jihadism

The 9/11 terrorist attacks in the United States of America marked a turning point in both the evolution of Islamist terrorism and the fight against it. Islamist terrorism has since posed a significant threat of targeted violence. Key criteria for terrorism defined by Hunter et al. (2021, p. 265) include an underlying "political, religious, ideological, or social motivation; intent to reach a larger audience; the motivation not involving personal monetary gain; and the manifestation of an 'enemy/other'". Jihadist terrorism in particular is a "violent sub-current of Salafism, a revivalist Sunni Muslim movement that rejects democracy and elected parliaments, arguing that human legislation is at variance with God's status as the sole lawgiver" (Europol, 2021, p. 43). Referring to Rapoport (2004), jihadist terrorism is part of the fourth and current wave of terrorism. Rapoport (2004) conceptualized four consecutive and overlapping waves of modern global terrorism driven by different energies: an anarchist wave, starting in Russia in the 1880s; an anticolonial wave from 1920 to 1960; a new left wave from the 1960s to the 2000s; and a religious wave emerging in 1979, starting with the Iranian revolution and the invasion of the former Soviet Union in Afghanistan (p. 62). For Rapoport (2004, p. 61), Islamic groups were the origin of the religious wave of terrorism and the most influential on other religious groups. In 2021, worldwide four Islamist terrorist groups were responsible for the majority of deaths of all terrorist groups worldwide: The so-called *Islamic State* (IS), Al-Shabaab, the Taliban, and Jamaat Nusrat Al-Islam wal Muslimeen (Institute for Economics & Peace, 2022 p.15)

In addition to various factors of influence, the wars in Afghanistan (1979-2021), Iraq (2003), and Syria (since 2011) impacted the evolution of jihadist movements (Hamming, 2019; Hegghammer, 2006). The conflicts in Syria and Iraq have brought the phenomenon of foreign fighters to a new level. The United Nations Security Council (2014, p. 2) defines foreign fighters as "individuals who travel to a State other than their States of residence or nationality for the purpose of the perpetration, planning, or preparation of, or participation in, terrorist acts or the providing or receiving of terrorist training, including in connection with armed conflict". The number of foreign fighters who have joined terrorist groups in Syria and Iraq is estimated to be up to 42,000 between 2011 and 2016, originating from more than 120 countries (Radicalisation Awareness Network, 2017, p. 6).

However, jihadist movements are not homogeneous. During the civil war in Syria, IS emerged as a fast-growing and polarizing group within the jihadist movement. The group

emerged from Al-Qaeda already in 2004 but finally gained relevance in 2011, especially due to the unstable situation in Syria and Iraq. By proclaiming itself as "Islamic State" and as "caliphate" later in 2014 by the then leader Abu Bakr al Baghdadi, IS further polarized the jihadist movement in deciding to either support IS and join the "caliphate" or be an enemy of the group (Hamming, 2019, p. 7). Affiliated groups of IS emerged beyond the areas in Syria and Iraq, such as in Khorashan ("ISIS-K") or West Africa. According to the Global Terrorism Index 2022, IS and its affiliate groups soon became and remained the deadliest terror group globally, recording the most attacks and deaths of any terrorist group in 2021 (Institute for Economics & Peace, 2022, p. 3). IS stood out for conducting attacks with the same frequency against both local and distant targets (Hamming, 2019, p. 2). After IS was increasingly expanded, the group had lost nearly 95% of its territory by the end of 2017 (Glenn et al., 2019), but still remains active and poses a relevant threat potential.

1.2.2 Salafist Jihadism and its Relevance in Germany

In Germany, the general potential for Islamism in 2020 amounted to 28,715 persons, from which 12,150 belonged to the Salafist spectrum (Bundesamt für Verfassungsschutz, 2022, p. 181). In a European comparison, Germany plays an important role in supporting and involvement in jihadist terrorist groups abroad. Until 2015, the peak of foreign fighters traveling to Syria and Iraq (Radicalisation Awareness Network, 2017), the third largest proportion came from western Europe (after the Middle East and the Maghreb) (The Soufan Group, 2015, p. 5). At that time, of the total of 5,000 foreign fighters from western Europe (including the United Kingdom), the largest proportion, with 1,800 people, came from France, followed by 760 each from Germany and the United Kingdom (The Soufan Group, 2015, p. 12). By 2022, a total of 1,150 people had traveled from Germany to Syria/Iraq to join a terrorist group. About a third of these people have since returned to Germany and more than 270 people have died abroad (Bundesamt für Verfassungsschutz, 2022, pp. 185-186). Statistics on 784 Germans who joined terrorist organizations in Syria/Iraq between May 2013 and June 2016 showed that the majority (n = 322) were between 22 and 25 years old at the time of (first) departure. 134 people had converted to Islam and about a third of them were under 22 years of age at the time of conversion (Bundeskriminalamt et al., 2016).

Since 2015, ten Islamist-motivated terrorist attacks have been committed in Germany, of which at least eight were associated with the IS (Bundesamt für Verfassungsschutz, 2022a). Between 2015 and 2018, the German Federal Prosecutor General (in German

Generalbundesanwalt), as the supreme prosecuting authority in the area of state protection, initiated criminal proceedings against 2,461 suspects related to Islamist terrorism, of which 61 resulted in conviction for membership in or support of (foreign) terrorist organizations and/or the planning of serious acts of violence endangering the state, as well as other criminal offenses (Deutscher Bundestag, 2018; Pelzer & Moeller, 2020, p. 3), which is presented further in the first manuscript of this dissertation.

1.2.3 Salafist Movements in Germany

Wiedl (2014b) considers the 1990s as the beginning of the development of the Salafist movement in Germany. The first Salafist-oriented preachers began to preach publicly in the 2000s and presented themselves on their own websites. The Salafist preacher Abou-Nagie initiated the group 'Die Wahre Religion' (DWR; German for true Religion) in 2005 and started a cooperation with preachers like Pierre Vogel, alias Abu Hamza, a famous German convert. Due to intensive public and social media campaigns, the Salafist movement soon grew and various separate Salafist groups emerged (Wiedl, 2014b). Hummel (2014, p. 105) describes the dominant part of the Salafist scene in Germany as mainstream Salafism with the character of a "social participation movement". A central goal of the Salafist groups was to perform da'wa (missionary work) and motivate people to convert to Islam. For Hummel (2014, p. 107), figures like Vogel symbolize a characterizing trend in the Salafist scene in Germany of increasingly replacing profound knowledge of Islam with professional activism. Besides real-life activism, social media played a crucial role for public relations or recruitments.

Abou-Nagie and Vogel separated, and Vogel was also involved in the group *Einladung zum Paradies* (EZP; German for Invitation to Paradise) from 2006 (see, e.g., Wiedl, 2014b). Salafist groups have increasingly developed different views. In 2008 a radical tendency emerged from the mainstream Salafism, that represented a theoretical legitimization of the so-called "defensive jihad" to protect Muslim countries and communities (Wiedl, 2014a, p. 44). These groups and their leading figures increasingly experienced negative press or interventions by police or criminal law agencies. For example, investigations against Salafist preachers were initiated, associations were banned, or it was no longer possible for groups to rent space or hold rallies. (Wiedl, 2014b). Salafist groups have further diverged from each other. Due to internal conflicts, EZP dissolved in July 2011.

Another milestone for the development of the Salafist scene in Germany was set in the end of 2011 by Abou Nagie and DWR who launched the project *LIES!* (German for read). German

translations of the Quran were regularly distributed in many German cities. Members of other groups participated in these activities. The Salafist-jihadist group Millatu Ibrahim was also founded in 2011 by Mohamed Mahmoud alias Usama Gharib and was soon established due to intensive web-based contributions and leading figures like the Berlin rapper Denis Cuspert alias Desodogg. Social media was intensively used for lectures, to reach out to members, or even to call for action. How Millatu Ibrahim emerged from the diverging Salafist scene in Germany at that time is further described in the second manuscript (Pelzer & Moeller, 2022). The group openly propagated takfirism, a form of exclusion that also declares Muslims who think differently as unbelievers (kuffar) and presented Jihad as a personal duty (fard al-ain). As a result, the group was increasingly investigated by police and criminal law agencies. Members of Millatu Ibrahim were involved in the first violent clashes with a right-wing countermovement (Pro-NRW) in May 2012. Soon after, the group was banned in 2012 for having an 'association purpose against the constitutional order and violation of the idea of international understanding' (Verfassungsschutz, 2013, p. 34). In this context, at least 15 of the approximately 50 group members left Germany to join terrorist groups abroad (Flade, 2012a, 2012b); others stayed and continued activism in Germany.

1.2.4 Conceptualization of Radicalization

Joining a terrorist organization is often preceded by a process of radicalization. However, radicalization processes do not necessarily lead to becoming terrorists and/or committing violent attacks, and not all individuals who join or support terrorist groups are radical (Horgan & Altier, 2012; Horgan & Taylor, 2011). As radicalization processes are highly diverse, the concept used here is oriented towards a more open and analytical understanding. In this sense, Abay Gaspar et al. (2018) defined radicalization as "the increasing questioning of the legitimacy of a normative order and/or the increasing willingness to fight the institutional structure of that order" (p. 5). Thus, radicalization towards joining or supporting a jihadist terrorist group does not necessarily lead to one's own use of violence, but at least to acceptance of it as a legitimate pattern of action.

The concept of radicalization is complex and controversial (Coolsaet, 2011) and is therefore studied by various disciplines (see, e.g., Alimi et al., 2015; Jensen, Atwell Seate, et al., 2020; Lloyd & Kleinot, 2017; Malthaner & Lindekilde, 2017; Pisoiu et al., 2020; Silke, 2003). In present radicalization research, there is consensus that radicalization has a processual character (Neumann, 2003, p. 874) and does not necessarily follow a linear direction

(McCauley & Moskalenko, 2017). As a complex and multifaceted psychosocial process, it is influenced by a variety of factors and mechanisms (Horgan, 2009b; Silke, 2008).

Numerous more or less complex academic models have been invented over time to conceptualize such processes. Previous stage process models conceptualized radicalization as an ongoing stage process (see, e.g., Borum, 2003; Dalgaard-Nielsen, 2010; De Coensel, 2018; Moghaddam, 2005; Silber & Bhatt, 2007; Wiktorowicz, 2005). As one of these, Moghaddam (2005) invented a metaphorical six-step *staircase model* underpinned by psychological theories to illustrate the radicalization process. He argues that only a few people would reach the final step of committing a terrorist act and that most people would remain on the ground floor, which is characterized by the perception of injustice and relative deprivation. This can be followed by searching for solutions, aggression against enemies, moral engagement in terrorism, and joining a terrorist group (p. 162). According to Wiktorowicz (2004), joining an Islamist extremist group is based on a process beginning with a cognitive opening that may have resulted from a personal crisis, a religious seeking, frame alignment with a new worldview, and socialization into an extremist group. Others focused on more non-linear models and distinguishing between cognitive and behavioral radicalization. McCauley and Moskalenko (2017), for example, developed the two-pyramids model to illustrate that different pathways can lead to highly radical opinions but not have to lead to an active involvement in terrorism. Another example of a non-linear approach is the four-prongs model by Sageman (2008). According to that, the interplay of four factors: a sense of moral outrage, which is often linked to a tendency to perceive external events as major moral violations, a specific interpretation of the world, resonance with personal experiences, and mobilization through networks, is the basis on which radicalization emerges (Sageman, 2008, p. 225). Although such concepts helped to better illustrate and theoretically understand radicalization processes, factors of the above mentioned models cannot be verified due to a lack of empirical evidence (King & Taylor, 2011).

Inspired by the *staircase model*, Doosje et al. (2016) developed a psychological (de)radicalization model. Doosje et al. (2016, p. 81ff) distinguish between a phase of sensitivity, group membership, and action and outline micro - level (individual), meso - level (group) and macro - level (society) factors that may play a role in (de)radicalization processes and in each of the theoretical phases. They refer to a feeling of uncertainty (Hogg et al., 2013), insignificance, and *quest for significance* (Kruglanski et al., 2014) at a micro - level in the first phase. The quest for significance theory refers to a motivational component of having a quest for significance, an ideological component in which violence is legitimized and a social process of sharing the same ideology (Kruglanski et al., 2014). At the meso - level, the social

environment often plays a role and, for example, relative deprivation (Crosby, 1976; see also Macdougall et al., 2018). Societal factors, such as perceived "threat to the pure Islam" can be relevant at the macro – level (Doosje et al., 2016, p. 81). In the second phase of group membership, the individual already adapted group norms and values and feels attached to the group (Noel et al., 1995). The authors highlight the declaration of a caliphate by the IS as an influential macro - level factor. As, for example, Moghaddam (2005) or McCauley and Moskalenko (2017) stated, most people do not reach the point of active involvement in terrorism. The third phase of action in the model of Doosje et al. (2016, p. 82) has a more anecdotal character and refers to death of a friend or family member, processes of dehumanization of the outgroup, and appeals for violence by authorities as influential. However, the model well highlights the interplay of individual, group, and societal factors at different levels, which underlines the variety of different outcomes and why there is no "typical profile". Following a similar approach, Pfundmair et al. (2022) empirically investigated a comprehensive model of radicalization in western Europe based on existing literature and expert interviews. In addition to individual preconditions (e.g., sociodemographic factors), they found a combination of gradually increasing individual (e.g., needs), group (e.g., group identification or collective emotions), and catalyst processes (e.g., cognitive adaptions toward acceptance of violence) as mutually influential for radicalization processes. The authors highlight that one factor alone is not likely to influence the radicalization process but the interplay of all.

However, these models focus on the radicalization process as such. They do not explain why different pathways of individuals lead to radicalization in some cases, whereas they do not in many more cases with the same conditions. Wolfowicz et al. (2021) synthesized numerous putative risk and protective factors for different outcomes of radicalization. Accordingly, sociodemographic factors only have small effects, but larger estimates were found for traditional criminogenic and psychological factors. Beelmann (2020) further combined existing theories and empirical research and proposes a three-step radicalization model from early childhood to late adolescence. He refers to an interaction of societal, social, and individual risk and protective factors in three stages. Keatley et al. (2021) argue that understanding risk factors is beneficial to understanding and preventing crime, but that it is also important to explore when they occur in a temporal progression.

To conceptualize radicalization as "a set of intricate pathways- unique configurations of causal mechanisms that lead to multiple outcomes" allows us to consider the high complexity, individuality, and different possible outcomes of radicalization processes (Jensen, Atwell Seate, et al., 2020, p. 2). Horgan (2008b, p. 85) sums up that "for any given individual, becoming

involved in terrorism will reflect a dynamic, though highly personalized, process of incremental assimilation and accommodation".

1.2.5 From Disengagement to Potential Re-engagement

The concept of deradicalization is as controversial, as the concept of radicalization (see, e.g., Altier et al., 2014). However, pathways out of extremism and terrorism are less represented in empirical research (Gaudette et al., 2022; Pisoiu & Köhler, 2013). The term deradicalization is often used synonymously for a variety of objectives (Horgan & Taylor, 2011, p. 175). Therefore, it should be considered that disengagement from radical or terrorist groups and activities does not necessarily imply distancing from radical beliefs or ideology (Gaudette et al., 2022; Horgan, 2008a; Horgan & Altier, 2012; Jensen, James, et al., 2020). Horgan (2008a) distinguishes between a psychological dimension and a physical dimension of disengagement from terrorism. On a psychological level, he identifies the development of negative sentiments, a change of priorities, or a sense of growing disillusionment as relevant issues that can lead to disengagement (Horgan, 2008a, p. 4; 2009a). Leaving terrorism behind on a physical level can be done voluntarily or forced by security authorities or by decisions among the terrorist group itself and is therefore not necessarily linked to deradicalization (Horgan, 2009a). In the national research project PrADera (Emser et al., 2022), from which parts of this dissertation project emerged, we identified three different types of distancing processes. Individuals who have managed to distance themselves from the Salafist scene and ideology without professional help belong to the type of "short-term onset of autonomous biographical change". Characterizing for individuals of this type is the availability of an alternative life plan and conductive external circumstances, such as a supportive social system. The "short-term onset but blocked biographical change" of individuals, also occurs based on the availability of alternative life plans, but is blocked due to obstructive external circumstances, such as pressure from the extremist scene or restrictive measures from police or law agencies. For this type, complete distancing from the scene and ideology can be enabled by professional support. Individuals of the type "long-term onset of biographical change" are unable to accomplish a biographical change on their own. Distancing succeeds either through integration into another subculture or with professional help (Emser et al., 2022, pp. 59-60). Supporting factors were found to be support from the family and partner and external agencies, such as exit counseling. Inhibiting factors for the distancing process are further interaction with the extremist scene or with (former) partners who still belong to the extremist scene, as well as trouble with police and

criminal law agencies, for example, restrictive measures after release from prison (Emser et al., 2022, p. 61).

In recent research, attempts are made to implicate previous findings of criminological desistance research for research on disengagement and deradicalization (see, e.g., Emser et al., 2022; LaFree & Miller, 2008; Lynch & Joyce, 2018; Marsden, 2016; Raets, 2022). Desistance in general means the termination of offending (Laub & Sampson, 2001). As it is difficult to define when offending is finally terminated or whether it is only paused, Maruna and Farrall (2004) concretized the concept of desistance. According to that, a gap in committing criminal activities would be conceptualized as primary desistance, while secondary desistance is further characterized by a change of personality and identity to a "non-offender or changed person" (Maruna & Farrall, 2004, p. 4). According to that, the change in behavior and the psychological change of self-identification can be considered consistent with the idea of long-term deradicalization (Horgan, 2009b; Horgan & Taylor, 2011, p. 178).

Though one of the main goals of the German penal system is the reintegration of convicts into society, the prevention of recidivism and therefore re-engagement in terrorism is as well an important goal. Terrorist recidivism can be defined as committing another nonterrorism or terrorism-related offense after being released from prison (Renard, 2020). Although it is known that especially the time after release from prison is highly vulnerable (Koller et al., 2021; Renard, 2020), general knowledge about terrorism recidivism rates remains mainly anecdotal (Hasisi et al., 2020; Schuurman & Bakker, 2016). This is especially due to a limited amount of available data and missing opportunities to compare different outcomes of studies, since there is no overall concept for the definition of recidivism (see, e.g., Renard, 2020). Based on 16 reports from countries in North America, Europe, the Middle East, and Asia, Silke (in Koller et al., 2021, p. 6) argues that the recidivism rate of terrorist offenders is estimated to be lower than the rate of non-terrorist offenders. However, some reports indicate that half of the crimes committed by released terrorist offenders are again terrorist related (Koller et al., 2021). For society, such acts can have a severe impact, as they are directed against democracy and/or often involve the injury or death of people.

Therefore, for security authorities, a major focus lies in the detection and prevention of terrorist-related offenses. Within and outside of the prison context, various approaches and tools were developed to assess the potential risks and threats represented by extremist individuals and/or returnees from war zones. Due to the federal system in Germany, each state has different risk assessment approaches. Some states implemented additional tools such as VERA-2R (see, e.g., Sadowski et al., 2017), RADAR-iTE (see, e.g., Sonka et al., 2020), or DyRiAS (see, e.g.,

Böckler et al., 2017) in their assessment processes (Basra & Neumann, 2020; Pelzer & Moeller, 2020). However, especially due to a lack of control groups, an overall small sample size and the complexity of (de)radicalization processes, currently there are no sufficient empirically based instruments for reliable risk assessment in the phenomenon of Islamist extremism (Pelzer & Moeller, 2020; Scarcella et al., 2016). Due to the high security relevance of the topic, assessments are made rather sensitively to avoid false negative misjudgments. However, this can lead to false positive assessments of a person's threat and potentially result in increasingly restrictive measures. As mentioned above, restrictive measures perceived as unjustified can inhibit distancing and reintegration processes (della Porta, 2018; Emser et al., 2022; Pelzer & Moeller, 2020).

1.2.6 Prevention and Intervention Approaches in Germany

As stated in Section 1.2.4, not all individuals with radical opinions engage in terrorism. For prevention and intervention approaches, therefore, the challenge is to address different individuals appropriately. Generally, it is to distinguish between primary or universal prevention (strengthening resilience), secondary or selective prevention (early prevention and intervention of radical tendencies), and tertiary or indicated prevention, which focuses on distancing and deradicalization (see, e.g., El-Mafaalani et al., 2016; Lützinger et al., 2020, p. 605 referring to prevention concepts of Caplan, 1964 and Gordon, 1983). Prevention approaches in Germany are often directed not only at the individual concerned, but also at their social system or at professionals. The aim is to provide broad and holistic approaches to prevent radicalization or recidivism (Caplan, 1964; Lützinger et al., 2020).

The "German approach" focuses on violent extremism but also on mainstream Salafism tendencies, as the same ideology is shared and the boundaries between both phenomena are dynamic (Hellmuth, 2013, p. 13). The responsibilities for prevention work lie in the individual federal states and are coordinated there (Ben Slama, 2020). Various prevention approaches and cooperation between governmental and non-governmental structures have been established throughout Europe. In Germany, these stakeholders come together in the form of case conferences or round tables. However, the amount of cooperation varies among the individual federal states, and there are no nationwide permanent cooperation structures in the context of individual casework (Koller, 2021; Pelzer & Moeller, 2020). Baaken et al. (2018, p. 172) define the status in Germany as a "hybrid model of different responsibilities of civil society actors,

state actors, and security authorities" that evolved due to different federal and funding structures.

The field of extremism prevention is currently dominated by religious extremism (Kiefer, 2021). Kiefer (2021, pp. 29-30) characterizes the prevention landscape in Germany as rapidly growing, confusing, and nationally unevenly distributed. Koehler (2016, p. 5) criticizes that numerous deradicalization programs have emerged globally without sufficient theoretical background, which Waleciak (2021, p. 139) assesses as still being true and persisting.

Waleciak (2021, p. 125) clusters the different approaches of tertiary prevention approaches to socioeconomic, systemic, psychosocial, and ideological focused approaches. A challenge lies in the high complexity and individuality of the phenomenon, which precludes a one-size-fits-all approach. Theologians or Islamic scholars, for example, may have professional expertise about the phenomenon, but they often lack the pedagogical knowledge necessary for counseling work (Kiefer, 2021, p. 31). At another level, healthcare professionals often lack expertise in (de)radicalization processes. On the other hand, exit counselors lack profound knowledge about the influence or diagnostics of mental health problems (Koller, 2021, p. 5). Therefore, a multi-agency approach is recommended, but this also involves challenges in terms of data protection (Kiefer, 2021; Koller, 2021; Pelzer & Moeller, 2020). Addressing that issue, for example, in Berlin, several model projects aim to establish a multi-professional tertiary prevention approach combining prevention and health care inside (e.g., JUST X Berlin) and outside the penal system (TRIAS Berlin). In the scope of TRIAS, on the one hand, processes of deradicalization and reintegration are to be supported by psychotherapeutic counseling and treatment. On the other hand, the project pursues the approach that medical and healing professionals should be better prepared for patients from the phenomenon of Islamist extremism (Violence Prevention Network, 2012). The project JUST X aims to implement a multiprofessional approach to prevention, education, intervention, and distancing counseling in the Berlin penal system and in the court and probation services (Violence Prevention Network, 2020a). A special part is the psychodynamic-oriented *Blickwechsel-Training*, which is part of secondary and tertiary prevention and focuses on the support of relationship regulation skills (Krause & Friedmann, 2021). Another approach to building networks against radicalization and violent extremism has emerged from the standardized and indicated school-based prevention program NETWASS- Networks Against School Shootings, which was developed and evaluated in a national research project (Fiedler et al., 2019; Leuschner et al., 2017). This was extended by the interdisciplinary approach of building networks against radicalization and violent extremism: NETWAVE. In this context, school-psychologist or other relevant professionals are

trained to act as multiplicators for teachers or pedagogues in dealing with students who show or express radical tendencies and therefore focus on the prevention and early intervention of Islamist radicalization processes (Schreiber et al., 2020).

2 Developmental and Biographical Issues in Radicalization Pathways:

A Comparative Case Analysis of Homegrown German Convicts of Islamist Terrorism-Related Offenses

The following chapter has been removed for copy-right reasons. It is based on the article:

Moeller, M. J., & Scheithauer, H (2022). Developmental and Biographical Issues in Radicalization Pathways: A Comparative Case Analysis of Homegrown German Convicts of Islamist Terrorism-Related Offenses. *Terrorism and Political Violence*. https://doi.org/10.1080/09546553.2022.2139689

2.1 Abstract

In this paper, developmental and biographical issues in individual biographical pathways of radicalization are examined from birth through to conviction for Islamist terrorism-related offenses. The source of data was court files of 45 homegrown Germans convicted of Islamist terrorism-related offenses (age range at the time of the crime: 15 to 38; mean: 24 years, STD: 5; 4 female convicts). Using coding and constant case comparison techniques, a multiple comparative case analysis was conducted. This article gives an account of what individuals who were later convicted of Islamist terrorism-related offenses experienced in their life course and when. Patterns of relations between the biographical experiences and developmental psychological phases are identified, visually represented, and measured using odds ratios. In particular, the importance of the distinction between the developmental psychological phases of adolescence, emerging adulthood, and adulthood is emphasized and its meaning for radicalization processes is discussed. The interplay of cumulative vulnerabilities and developmental psychological phases are discussed. Guidance is provided on which topics are best addressed in prevention interventions and at what times.

Keyword: Radicalization, Salafist jihadism, qualitative case study, developmental pathways, life courses, adolescence, emerging adulthood

3 Germany: Individual Variations in Relational Mechanisms of Radicalization

The following chapter has been removed for copy-right reasons. It is based on the article:

Pelzer, R., & Moeller, M. (2022). Germany: Individual Variations in Relational Mechanisms of Radicalization. In T. Balzacq & E. Settoul (Eds.), *Radicalization in Theory and Practice: Understanding Religious Violence in Western Europe* (pp. 186-211). University of Michigan Press. https://doi.org/10.3998/mpub.12202059

4 Study 3: Motivational Dynamics of German Salafist Jihadists: A multimethodical in-depth study of three paradigmatic cases

The following chapter has been removed for copy-right reasons. It is based on the article:

Moeller, M. J., Langer, P. C., & Scheithauer, H. (2022). Motivational Dynamics of German Salafist Jihadists: A multi-methodical in-depth study of three paradigmatic cases. *Frontiers in Psychology - Forensic and Legal Psychology*. https://doi.org/10.3389/fpsyg.2022.1009222

4.1 Abstract

Individuals belonging to terrorist organizations accept and often use violence as an instrument of their strategies to achieve their goals. The present study focuses on the motivational dynamics of three contrastively selected paradigmatic cases of extremists that grew up in Germany, joined and supported terrorist organizations abroad, later disengaged and distanced themselves from the jihadist ideology. An innovative multi-methodical approach was applied to the interviews that combines a biographical reconstruction of the lived experiences with a psychoanalytically informed interpretation of the narratives. First, the biographical trajectories were analyzed on the manifest level: How have the former terrorists experienced their own pathways? What were relevant factors for their engagement in and disengagement from terrorism? Second, to gain a deeper understanding of the unconscious motivational dynamics for involvement in terrorism, key sequences of the narrative interviews were interpreted scenically in a psychoanalytical interpretation group: How did the interviewees express their lived experiences (and why in this particular way)? What latent meanings can be extrapolated that provide deep insights into the motivational backgrounds of their decisions? Based on the results of the triangulation process, characterizing structural hypotheses about case dynamics including protective and risk factors are presented and implications for prevention and intervention approaches are given.

Keywords: Qualitative case study, Salafist Jihadism, Radicalization, Motivation, Cognitive Dissonance, In-depth hermeneutic

General Discussion 110

5 General Discussion

Focusing on different analytical depths of understanding, the present cumulative dissertation aimed to contribute to a holistic understanding of the biographical and developmental pathways of radicalization and deradicalization. Therefore, three empirical research studies using different methodological approaches were developed for three different data sources. The selected data represent different outcomes of (de)radicalization processes at different points in time and thus reflect different perspectives and target groups relevant to a holistic understanding of the phenomenon: (1) Convicts of terrorism-related offenses that are to be reintegrated into society; (2) individuals who decided to join terrorist groups abroad or to continue activism in Germany; and (3) convicted returnees who joined and/or supported terrorist groups abroad and have since been released from prison and describe themselves as deradicalized. Considering the current state of research and the variety of outcomes of (de)radicalization processes, the heterogeneity of the phenomenon was thus taken into account. Based on individual cases, in the three studies, it was reconstructed (1) what individuals who were later convicted of Islamist TRO experienced in their life course and when; (2) how members of a Salafist-jihadist group responded to conflictual interactions with authorities and countermovements, as well as two different kinds of sense and meaning-making processes presented and lived out by two of the group's leading figures (3) and how former convicts of TRO expressed their own biographical pathways, and which intrapsychic and motivational dynamics could be identified as driving throughout their life course. Specific patterns of individual developmental dynamics and biographical pathways of Salafist-jihadist (de)radicalization of German homegrown individuals, as well as influences, determinants, and conditions that played a role in these processes, could be identified.

Following the metaphorical iceberg model presented in Section 1.1.2, the first study "Developmental and Biographical Issues in Radicalization Pathways of Islamist Extremists: A Comparative Case Analysis of Homegrown German Convicts" (Moeller & Scheithauer, 2022) aimed to establish an overview of the phenomenon and a foundation including *conscious parts and observable behavior*. Therefore, to reconstruct the biographical and developmental pathways and issues of homegrown German convicts of TRO, first, an individual biographical approach was chosen, using open, selected, and focused coding, constant case comparison (Qureshi & Ünlü, 2020) and odds ratios. On the basis of biographical data extracted from court files of the German Federal Attorney General, patterns of biographical and developmental psychological issues could be identified. By relating biographical experiences that were

reconstructed as relevant in the life courses of the 45 cases studied with the developmental psychological phases in which they occurred, it was possible to identify specific vulnerabilities in the biographical pathways of later convicts of TRO. Based on the synthesis of single cases, a visual representation was developed to analyze the single cases in relation to the whole sample (see Moeller & Scheithauer, 2022). It could be shown that most of the convicts had at least one Muslim parent, a second-generation migration background, and were born in the 1980-1990s. Therefore, referring to Rapoport (2004), most of them grew up during the religious wave of terrorism and witnessed the war in Afghanistan (1979-2021), Iraq (2003), and Syria (since 2011), which generally impacted the evolution of jihadist movements (Hamming, 2019; Hegghammer, 2006; see Section 1.2.1). In the manuscript, the potential impact of the relevant biographical experiences identified is discussed in relation to the current state of research and literature. Various potentially destabilizing experiences occurred during childhood and adolescence. A holistic view of biographical pathways beginning in childhood, a consideration of 'what happens when', and a nuanced distinction between adolescence, emerging adulthood, and adulthood could be shown to be insightful. In the manuscript, it is implied which topics are best addressed in prevention and intervention approaches and at what time.

In study 1 (Moeller & Scheithauer, 2022), it was shown that nearly half of the individuals began their engagement in TRO in 2013 and that more than half had previously participated in a Salafist group. They were predominantly involved in Quran distributions by the Salafist group LIES! and/or belonged to the Salafist-jihadist group Millatu Ibrahim. Both groups cooperated and were established in 2011, at a time when Salafist movements were expanding rapidly. Millatu Ibrahim was banned only one year later after escalating encounters with the police and counter-movements. Parts of the group stayed in Germany, while other parts departed to join terrorist groups abroad. In study 2 "Germany: Individual Variations in Relational Mechanisms of Radicalization" (Pelzer & Moeller, 2022), this development is discussed, referring to the theory of clandestine violent groups emerging from broader social movements by della Porta (2013). While study 1 analyzed biographical and developmental pathways of later convicts of TRO based on biographical data, study 2 aimed to analyze processes of sense- and meaning-making at both individual and group levels based on groupand self-presentations. Since social media played a crucial role in the development of Salafist movements and radicalization processes at that time (see Section 1.2.3), video contributions by Millatu Ibrahim and its leading figures were chosen as a database. Millatu Ibrahim was not only the first Salafist group that violently clashed with its counterparts; the group has also acquired a new status in terms of the quantity of posted contributions and their explicitness. Online

content only represents a part of the entire group's communication, but as external events are discussed, interpreted, and embedded in the ideology of the group, it offers valuable insights into the internal logic of the group and its members (Moeller, 2020). In terms of triggering environmental stimuli, the results of this study underline that the development of an individual or a group is highly connected to societal and political structures and dynamics, and therefore specific for a country. Two patterns of sense-making and meaning-making of increasing pressure by police and counterparts corresponding to the ideology represented by the group could be identified by analyzing (Bohnsack, 2010; Glaser & Strauss, 1967) video contributions from different points in time of two leading figures. In one case, the pressure experienced by authorities and countermovements was interpreted as an affirming sign of doing the right thing. Therefore, no further adjustment of the own activism was necessary as long as it could be practiced. In the other case, an increase in experienced pressure was associated with a higher expressed anxiety about failure, leading to an escalation of activism and joining a terrorist group abroad after Millatu Ibrahim was banned. Thus, both cases, not only presented their interpretations for propaganda reasons to address different groups of like-minded group members, but also acted accordingly. Due to the high frequency of videos that both contributed and the fact that the group divided into a part that left to join a terrorist group abroad and a part that continued activism, the study assumes that both presented different adaptable sense-making and coping mechanisms that addressed different types of individuals in the group. Although it is possible that other types of lived sense- and meaning-making exist, both addressed and represented two large groups of the German Salafist scene at that time. However, no causal relationship is assumed between the activism models presented by the leading figures and the outcome of the group members (see also Hassan et al., 2018).

As study 1 (Moeller & Scheithauer, 2022) shows, during the same period, 60% of the convicts in the sample studied departed for war and crisis zones, four individuals attempted to do so, and 14 individuals provided other support. The results of both studies (Moeller & Scheithauer, 2022; Pelzer & Moeller, 2022) show that characteristics of different biographical and developmental issues in biographical pathways of radicalization can be identified, but do not explain why some individuals join terrorist groups abroad and are willing to use violence, and other disengage or continue activism. As study 2 (Pelzer & Moeller, 2022) concludes, this is further impacted by the own adapted model of religious activism, which is also related to a person's mental state.

The third study takes up the main points of the first two studies and explores them in greater depth with regard to the question of what drives people in their lives. The three cases

under investigation were convicted of Islamist TRO, interacted with police and criminal law agencies, and have now described themselves as "deradicalized". In study 3 "Motivational Dynamics of German Salafist Jihadists: A multi-methodical in-depth study of three paradigmatic cases" (Moeller et al., 2022), an individual and psychoanalytic approach was developed to explore preconscious and unconscious parts, such as intrapsychic phenomena, and to reconstruct the motivational dynamics of individuals who joined and/or supported terrorist groups abroad. Since study 1 concluded that a holistic view of a case is insightful, also in this study, the entire life course was included to identify the overall characteristics of a case. Compared to the biographical data extracted from court files in Study 1, the added value of narrative interviews is the expression of their lived experiences. In the first study, specific issues could be identified, but not how the individuals perceived them and how that might have changed throughout their biographical pathways. Different characteristics and patterns in the way the interviewees expressed their perception of experiences could be identified and linked to their way of taking responsibility for life decisions. On that basis, it could be shown that the three cases were driven by different intrapsychic phenomena and personal agencies, which are discussed in the framework of psychological and psychoanalytic literature (Moeller et al., 2022). Through the pathway approach, it could be shown that the underlying dynamics are characteristic but that at different times in life needs or perceptions can be pronounced differently. Inherent in the narratives are conscious and unconscious structures that are also apparent in the interviews. Through biographical reconstruction (Rosenthal, 1995; Schütze, 1981), thematic analysis (Braun & Clarke, 2006), and an in-depth hermeneutic approach, manifest and latent meanings were psychoanalytically interpreted, involving the intersubjectivity of the researchers (Haubl & Lohl, 2020). Due to the complex and explorative methodical approach, a small sample was chosen, but comprehensively analyzed. The different methodical steps and results were triangulated per case so that intrapsychic and motivational dynamics could be reconstructed in the form of research vignettes (see, e.g., Langer, 2016). Since each case has its own dynamics, study 3 (Moeller et al., 2022) contributes to the results of the first and second study. From this, conflictive and supportive factors could also be derived, which were related to current research. Overall, the findings of this dissertation contribute from different perspectives to the questions of what happened when in the lives of individuals who joined or supported terrorist groups, how their biographical pathways were influenced and perceived, and what drives these individuals in their lives.

5.1 Methodological Reflection and Limitations

Research on (de)radicalization evolved since, for example, Neumann and Kleinmann (2013) assessed larger parts of radicalization research as lacking methodological rigor and access to primary data, or since Sageman (2014) characterized the entire terrorism research as stagnating. In contrast, Schuurman (2019, p. 1013) characterizes it as "flourishing". However, as Silke and Schmidt-Petersen (2017) reconstructed, terrorism research essentially began in the 1970s and is therefore still a young research tradition. Another challenge is the dynamic interplay between (de)radicalization processes and changing political, societal, or technical developments. In this dissertation project, the aim was to investigate processes of (de)radicalization using different data sources and to establish suitable analytical approaches. To generate new hypotheses and develop new approaches, a qualitative research focus was established. By triangulating different research methods and data materials, in this dissertation project, different biographical and developmental pathways, and dynamics of (de)radicalization could be reconstructed. Taking into account psychological and psychoanalytical concepts made it possible to relate the interrelationship between the individual and society, as well as the current relevance of the historical past. Such an approach is particularly insightful in the field of Salafist-jihadist (de)radicalization, as this always takes place in a field of tension between the individual and society. In the three studies conducted in this dissertation, different variations of the same phenomenon could be identified through different methodical approaches and perspectives. However, these do not claim to be statistically representative of a population, as Levitt (2021, p. 95) states: "the object of generalization in qualitative methods is not to generalize from a sample to a larger population, but to generalize from a map of variation developed through analysis to the larger experience of the phenomenon under study".

Although the use of court files only offered information for those who were convicted of TRO within a specific period, they were useful to develop an overview of the phenomenon and to identify biographical and developmental issues. However, as mentioned in the manuscript of the first study (Moeller & Scheithauer, 2022), court files are not created for research, but for law enforcement reasons. Therefore, there is already a certain degree of bias inherent in it. However, they contain a high level of information on the life histories of the convicted persons. Böckler et al. (2018), De Bie and De Poot (2016), and Sommer et al. (2020) have also conducted research using court files as a database and demonstrated their insight value. As the convicted and imprisoned individuals are already or are expected to be released in the coming years, these court files offer a very current impression. According to qualitative research standards, the analytical approach developed was suitable for the sample analyzed.

When applying the approach to a bigger or different sample, it might be that based on the coding process and constant case comparison, other issues evolve as relevant, or that at least the illustrative approach has to be adapted due to possible overlaps in time.

Although no direct radicalizing effect of the use and consumption of social media can be assumed (see, e.g., Hassan et al., 2018; Whittaker, 2022), the analysis of video contributions that have been distributed on websites and social media proved to be suitable to analyze self-presentations (see also Moeller & Pelzer, 2022) and types of presented sense- and meaning-making (Pelzer & Moeller, 2022). Social media played an important role in the development of the Salafist scene in Germany. Since the data was collected before the Network Enforcement Law (in German *Netzwerkdurchsetzungsgesetz*) came into force in October 2017, numerous video titles or contributions could be reconstructed. It was possible to conduct an in-depth analysis of the videos at different points in time. In the analysis and interpretation of the results, it should be taken into account that the videos were predominantly produced for propaganda purposes. We kept that in mind and abstracted the results with the actual action patterns of the individuals studied and the other members of the group, taking a reconstructive approach. However, since the group under study was already banned at that time, the titles of the contributions posted on the group's website could only be reconstructed due to screenshots of an Internet archive and, therefore, are not fully complete.

Narrative interviews may be subject to certain biases. It cannot be ruled out that people distort what they have experienced, e.g., through memory errors or socially desirable answers. Therefore, what happened in the life of the interviewee was triangulated with a focus on how the experiences were expressed. The aim was not to reconstruct "the truth" but subjective conscious and unconscious dynamics. In this research study, the intersubjectivity of both the interviewee and the researcher was made the analytic perspective and tool through psychoanalytic interpretations and in-depth hermeneutic methods. To develop an understanding of individuals who engage in terrorism and their motivation, Morrison (2020, p. 3) argues that first-hand interviews are essential and that great insights can therefore be reached even within a small sample size. By conducting several methodical approaches and triangulating them into psychoanalytically induced research vignettes, theoretical saturation could be reached for the three paradigmatic cases. Since the three cases were selected from a broader sample of a previous research project in which the author of this dissertation was involved, it could be roughly abstracted that the identified phenomena could also apply to other cases. However, this was not systematically investigated in the context of this dissertation, so it is also possible that additional intrapsychic phenomena may emerge in further cases. Due to ethical reasons and a

strict data protection concept, it was challenging to present transparent and rigor methodical approaches and case reconstructions and at the same time to preserve the anonymity of the interviewees.

5.2 Implications for Policy, Practice future Research

In this dissertation project, it could be demonstrated that it is insightful to include the entire course of a person's life and lived experiences to understand the pathways and influential factors of (de)radicalization. Several implications can be derived from the results of this research project.

In the first study (Moeller & Scheithauer, 2022), it is discussed that the analyzed sample of 45 individuals is rather small, but represents those convicts of terrorism-related crimes that are expected to be released now and in the following years. A better understanding of the casespecific vulnerabilities could help provide a suitable selection of prevention approaches to support reintegration into society. In general, the first (Moeller & Scheithauer, 2022) and the third study (Moeller et al., 2022) suggest that greater focus should be placed on psychotherapeutic services or pedagogic approaches for psychological stabilization and trauma treatment, when working with (former) extremists (see also Krause & Friedmann, 2021; Violence Prevention Network, 2020b). Considering that most of the cases studied in this dissertation project departed to a war and crisis zone, it should also be taken into account that potentially traumatic experiences or general mental health issues may occur later. As in the sample analyzed, the most potentially destabilizing experiences were made in childhood and adolescence, in study 1 (Moeller & Scheithauer, 2022), it is concluded that a greater involvement of school professionals in primary and secondary prevention work would be useful (see also Fiedler et al., 2019; Leuschner et al., 2017). All three studies showed that the biographical pathways, the forms of adapted religious activism, and the motivational dynamics of the individuals involved in Salafist-jihadist activism are highly diverse. Therefore, the fact that the prevention landscape in Germany offers numerous approaches corresponds to the diversity of the phenomenon. The high flexibility in the selection of different offers complies with the highly individual needs and topics to be addressed, which are also further discussed in studies 1 and 3. In recent years, several online-based prevention approaches have emerged, which seems reasonable considering that social media played a huge role in the development of the German Salafist scene. However, as research findings increase, the empirical basis and evaluation of prevention approaches should also be further developed. Considering the federal structure in Germany, a better transfer of well-functioning or evaluated structures and

approaches between the federal states would also be advisable. Along with this, Freiheit et al. (2021) refer to the general problem of long-term financing and implementation of model projects or non-governmental lead prevention approaches.

Both approaches developed in studies 1 and 3 build a suitable base to explore individual characteristics in biographical and developmental pathways and motivational dynamics in a broader sample. In a further research step, recurring patterns could be abstracted to contribute to prevention and intervention approaches, which are discussed in both articles. The approaches developed in both studies could be applied in the future to larger samples as well as to individuals who have not disengaged (see, e.g., Hofinger & Schmidinger, 2020) or to contrasting cases, such as individuals of other forms of extremism or other offense groups. With increasing access to first-hand reports from (former) members of terrorist groups, future research should focus on conceptualization and exploration of motivations.

Furthermore, the lack of research on women who supported or joined terrorist groups was discussed, since they made up 25% of all individuals who departed from Germany to the war and crisis zone in Syria and Iraq (Bundesamt für Verfassungsschutz, 2022b). Outside of the scope of this dissertation project, as a lecturer, the author of this dissertation conducted an experimental research exercise with psychology students with the aim of making sense of the pathways of women into terrorist groups. Under the aspect of *teaching research*, another manuscript is planned that represents this research process. Another issue that has emerged in the previous work is the significance of relationship dynamics in the process of (de)radicalization, which will be explored further in the future.

In study 2 (Pelzer & Moeller, 2022), two different types of reaction to intervention approaches by police and criminal law agencies could be reconstructed. It should be considered that these have different effects or are experienced differently by individuals. Since a specific group and two different types were reconstructed, future research should investigate further groups and a broader sample of activists to complement the findings. Since this study focused on Germany, it would also be interesting to investigate such relational mechanisms in other countries and compare the findings. Since the media landscape has also changed in the meantime, it would be advisable to expand the research focus to portals such as TikTok in the future.

Study 3 (Moeller et al., 2022) implies that a separation from the Salafist scene through imprisonment has a supporting effect on distancing from the scene and ideology, which is also suggested for a broader sample by Emser et al. (2022). Approaches to risk assessment were not explicitly investigated, but rough implications can be derived from the results of this

dissertation. Since a holistic view of the cases is suggested for better understanding, this also applies to risk assessments. Risk assessments should be holistic, taking into account an individual's entire life, rather than relying on a narrow time frame, e.g., beginning with their turn to Salafist activism. Study 3 (Moeller et al., 2022) shows that intrapsychic and motivational dynamics are characteristic of an individual but can change or adapt over time, which is often determined by external influences (see also study 2 Pelzer & Moeller, 2022). The example of the terror attack of December 2016 in Berlin showed that assessments based on rather narrow timeframes can lead to misleading interpretations and assessments of a case.

It could be shown that a potential weakness of intersubjectivity in a controlled setting can also be used as an instrument of insight (in German *Erkenntnisinstrument*) by psychoanalytic interpretation and reflection on the research and interpretation process. Implementing psychoanalytically trained in-depth hermeneutic interpretation groups could be used in further research, for example, to extend findings from existing interview studies (e.g., Aslan et al., 2017; Emser et al., 2022; Heide-Ottosen et al., 2022).

Considering the recent lack of primary data, the hard-to-reach group of (former) terrorists, and the still high demand for original research, for future research, it would be advisable to develop ethical and data protection sensitive concepts of how and what data could be shared between researchers of different institutions or research projects while preserving the anonymity and the personal rights of the individuals. Such collaborations have already been accomplished in some projects but remain the exception rather than the rule. Schuurman (2019) criticizes that researchers on terrorism issues rather work and publish alone than collaborate with others. However, in current research practice and due to strict data protection concepts in most research projects, further collaboration with other researchers is often not possible.

Conclusion 119

6 Conclusion

In this dissertation, various outcomes of (de)radicalization processes were analyzed based on court files, social media video contributions, and narrative interviews, reflecting different times in the (de)radicalization processes and focusing on different research questions. The results contribute to a holistic understanding of (de)radicalization processes including the lifetime from birth until after deradicalization. Following a metaphorical iceberg approach, the results of the three primary research studies contributing to this cumulative dissertation were discussed in the context of conscious parts, observable behavior, triggering environmental stimuli, as well as pre-conscious and unconscious parts. The findings indicate a connection between biographical experiences and when they occur in the life courses of individuals who engaged in terrorismrelated offenses. The phase of emerging adulthood was identified as the most life-transforming and the most vulnerable phase for radicalization. The results further underline that the development of an individual or a group is strongly linked to societal and political structures and dynamics and is therefore, specific for a country and that the impact of conflictual interactions with authorities and countermovements can be seen as a social mechanism of increasing radicalization that depends on the individual model of religious activism. Furthermore, on the example of three paradigmatic cases, it could be shown that the characteristics of the intrapsychic and motivational dynamics are characteristic of an individual throughout the life course. However, changes in increasing and decreasing perceptions of intrapsychic phenomena could be identified for different experiences in the biographical pathways of (de)radicalization. Implications for prevention and intervention approaches, as well as for future research could be derived from the results.

References

Abay Gaspar, H., Daase, C., Deitelhoff, N., Junk, J., & Sold, M. (2018). Was ist Radikalisierung? Präzisierungen eines umstrittenen Begriffs. Leibniz-Institut Hessische Stiftung Friedens- und Konfliktforschung (HSFK). https://www.hsfk.de/fileadmin/HSFK/hsfk publikationen/prif0518.pdf

- Alimi, E. Y., Bosi, L., & Demetriou, C. (2015). *The dynamics of radicalization: A relational and comparative perspective*. Oxford University Press.
- Altier, M. B., Thoroughgood, C. N., & Horgan, J. G. (2014). Turning away from terrorism: Lessons from psychology, sociology, and criminology. *Journal of Peace Research*, 51(5), 647-661. https://doi.org/10.1177/0022343314535946
- Aslan, E., Akkılıç, E. E., & Hämmerle, M. (2017). *Islamistische Radikalisierung:* biografische Verläufe im Kontext der religiösen Sozialisation und des radikalen Milieu. Springer.
- Baaken, T., Becker, R., Bjørgo, T., Kiefer, M., Korn, J., Mücke, T., Ruf, M., & Walkenhorst, D. (2018). *Herausforderung Deradikalisierung: Einsichten aus Wissenschaft und Praxis*. Leibniz-Institut Hessische Stiftung Friedens- und Konfliktforschung (HSFK). https://www.hsfk.de/fileadmin/HSFK/hsfk publikationen/prif0918.pdf
- Bartlett, J., & Miller, C. (2012). The edge of violence: Towards telling the difference between violent and non-violent radicalization. *Terrorism and Political Violence*, 24(1), 1-21. https://doi.org/10.1080/09546553.2011.594923
- Basra, R., & Neumann, P. R. (2020). *Prisons and Terrorism: Extremist offender management in 10 European countries*. International Centre for the Study of Radicalisation (ICSR). https://icsr.info/wp-content/uploads/2020/07/ICSR-Report-Prisons-and-Terrorism-Extremist-Offender-Management-in-10-European-Countries V2.pdf
- Beelmann, A. (2020). A social-developmental model of radicalization: A systematic integration of existing theories and empirical research. *International Journal of Conflict and Violence*, 14, 1-14. https://doi.org/10.4119/ijcv-3778
- Ben Slama, B. (2020). Extremismusprävention aus der Perspektive eines sicherheitsbehördlichen Bedarfs. In B. B. Slama & U. Kemmesies (Eds.), *Handbuch Extremismusprävention Gesamtgesellschaftlich. Phänomenübergreifend* (pp. 429-453). Bundeskriminalamt Wiesbaden.
- Bhui, K., Silva, M. J., Topciu, R. A., & Jones, E. (2016). Pathways to sympathies for violent protest and terrorism. *The British Journal of Psychiatry*, 209(6), 483-490. https://doi.org/10.1192/bjp.bp.116.185173
- Bjørgo, T. (2011). Dreams and disillusionment: Engagement in and disengagement from militant extremist groups. *Crime, Law and Social Change, 55*(4), 277-285. https://doi.org/10.1007/s10611-011-9282-9

Bjørgo, T., & Horgan, J. G. (2008). *Leaving terrorism behind: Individual and collective disengagement*. Routledge. https://doi.org/10.4324/9780203884751

- Böckler, N., Allwinn, M., Hoffmann, J., & Zick, A. (2017). Früherkennung von islamistisch motivierter Radikalisierung. Vorstellung und empirische Validierung eines verhaltensbasierten Instrumentes zum Fallscreening. *Kriminalistik*, 8, 497-503.
- Böckler, N., Leuschner, V., Zick, A., & Scheithauer, H. (2018). Same but Different?

 Developmental Pathways to Demonstrative Targeted Attacks Qualitative Case

 Analyses of Adolescent and Young Adult Perpetrators of Targeted School Attacks and

 Jihadi Terrorist Attacks in Germany. *International Journal of Developmental Science*,

 12(1-2), 5-24. https://doi.org/10.3233/DEV-180255
- Bohnsack, R. (2010). Documentary method an group discussions. In R. Bohnsack, N. Pfaff, & W. Weller (Eds.), *Qualitative analysis and documentary method in international educational research* (pp. 99-124). B. Budrich.
- Borum, R. (2003). Understanding the terrorist mind-set. *FBI Law Enforcement Bulletin*, 72(7), 7-10.
- Bouzar, D. (2017). A novel motivation-based conceptual framework for disengagement and de-radicalization programs. *Sociology and Anthropology*, *5*(8), 600-614. https://doi.org/10.13189/sa.2017.050804
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. https://doi.org/10.1191/1478088706qp063oa
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health, 11*(4), 589-597. https://doi.org/10.1080/2159676X.2019.1628806
- Bundesamt für Verfassungsschutz. (2013). *Verfassungsschutzbericht 2013*.

 Bundesministerium des Innern und für Heimat.

 https://www.bmi.bund.de/SharedDocs/downloads/DE/publikationen/themen/sicherheit/vsb-2013.pdf? blob=publicationFile&v=1
- Bundesamt für Verfassungsschutz. (2022a). *Islamismus und islamistischer Terrorismus Anschläge (seit 2015)*. https://www.verfassungsschutz.de/DE/themen/islamismus-und-islamistischer-terrorismus/zahlen-und-fakten/zahlen-und-fakten_artikel.html#doc678982bodyText4
- Bundesamt für Verfassungsschutz. (2022b). *Reisebewegungen*. Retrieved 2022, January from https://www.verfassungsschutz.de/DE/themen/islamismus-und-islamistischerterrorismus/zahlen-und-fakten/zahlen-und-fakten node.html
- Bundesamt für Verfassungsschutz. (2022). *Verfassungsschutzbericht 2021*.

 Bundesministerium des Innern und für Heimat.

 https://www.verfassungsschutz.de/SharedDocs/publikationen/DE/verfassungsschutzberichte/2022-06-07-verfassungsschutzbericht-2021.pdf? blob=publicationFile&v=2

Bundeskriminalamt, Bundesamt für Verfassungsschutz, & Hessisches Informations- und Kompetenzzentrum gegen Extremismus. (2016). Analyse der den deutschen Sicherheitsbehörden vorliegenden Informationen über die Radikalisierungshintergründe und-verläufe der Personen, die aus islamistischer Motivation aus Deutschland in Richtung Syrien ausgereist sind. Fortschreibung 2016. https://www.bka.de/SharedDocs/Downloads/DE/Publikationen/Publikationsreihen/For schungsergebnisse/2016AnalyseRadikalisierungsgruendeSyrienIrakAusreisende.html

- Caplan, G. (1964). Principles of preventive psychiatry. Basic Books.
- Carlsson, C., Rostami, A., Mondani, H., Sturup, J., Sarnecki, J., & Edling, C. (2019). A life-course analysis of engagement in violent extremist groups. *The British Journal of Criminology*, 60(1), 74–92. https://doi.org/10.1093/bjc/azz048
- Coolsaet, R. (2011). *Jihadi terrorism and the radicalisation challenge: European and American experiences*. Ashgate Publishing, Ltd.
- Crosby, F. (1976). A model of egoistical relative deprivation. *Psychological Review*, 83(2), 85-113. https://doi.org/10.1037/0033-295X.83.2.85
- Dalgaard-Nielsen, A. (2010). Violent radicalization in Europe: What we know and what we do not know. *Studies in Conflict & Terrorism*, *33*(9), 797-814. https://doi.org/10.1080/1057610X.2010.501423
- De Bie, J. L., & De Poot, C. J. (2016). Studying police files with grounded theory methods to understand Jihadist networks. *Studies in Conflict & Terrorism*, *39*(7-8), 580-601. https://doi.org/10.1080/1057610X.2016.1142241
- De Coensel, S. (2018). Processual models of radicalization into terrorism: A best fit framework synthesis. *Journal for Deradicalization, Winter 2018/2019*(17), 89-127.
- della Porta, D. (2013). *Clandestine political violence*. Cambridge University Press. https://doi.org/10.1017/CBO9781139043144
- della Porta, D. (2018). Radicalization: A Relational Perspective. *Annual Review of Political Science*, 21, 461-474. https://doi.org/10.1146/annurev-polisci-042716-102314
- Deutscher Bundestag. (2018). Islamistischer Terrorismus in Deutschland Antwort der Bundesregierung auf eine Kleine Anfrage Drucksache 19/6684.
- Doosje, B., Moghaddam, F. M., Kruglanski, A. W., De Wolf, A., Mann, L., & Feddes, A. R. (2016). Terrorism, radicalization and de-radicalization. *Current Opinion in Psychology*, 11, 79-84. https://doi.org/10.1016/j.copsyc.2016.06.008
- El-Mafaalani, A., Fathi, A., Mansour, A., Müller, J., Nordbruch, G., & Waleciak, J. (2016). Ansätze und Erfahrungen der Präventions-und Deradikalisierungsarbeit. Leibniz-Institut Hessische Stiftung Friedens- und Konfliktforschung (HSFK). https://www.hsfk.de/fileadmin/HSFK/hsfk_publikationen/report_062016.pdf
- Emser, C., Haase, I., Moeller, M., Nagel, C., & Pelzer, R. (2022). Distanzierungsverläufe vom salafistischen Extremismus: eine empirische Studie über die Vielfalt individueller

- Wege der Loslösung vom Salafismus (Vol. Band 11). Bundesamt für Migration und Flüchtlinge.
- Europol. (2021). European Union Terrorism Situation and Trend report 2021. https://www.europol.europa.eu/cms/sites/default/files/documents/tesat_2021_0.pdf
- Fiedler, N., Sommer, F., Leuschner, V., & Scheithauer, H. (2019). Student Crisis Prevention in Schools: The NETWorks Against School Shootings Program (NETWASS)—An Approach Suitable for the Prevention of Violent Extremism? *International Journal of Developmental Science*, 13(3-4), 109-122. https://doi.org/10.3233/DEV-190283
- Flade, F. (2012a). Salafisten planen 'Abrechnung' mit Deutschland. *Welt*. https://www.welt.de/politik/ausland/article109690454/Salafisten-planen-Abrechnung-mit-Deutschland.html
- Flade, F. (2012b). "Wandert Aus, Wandert Aus..." Deutsche Salafisten-Kolonie in Ägypten. *Terrorismus Und Sicherheitspolitik*. https://ojihad.wordpress.com/2012/10/09/wandert-aus-wandert-aus-deutschesalafisten-kolonie-in-agypten/
- Freiheit, M., Uhl, A., & Zick, A. (2021). Ein systematischer Blick auf die Präventionslandschaft in Deutschland. In *Radikalisierungsprävention in Deutschland. Mapping und Analyse von Präventions- und Distanzierungsprojekten im Umgang mit islamistischer Radikalisierung* (pp. 49). MAPEX-Forschungsverbund.
- Gaudette, T., Scrivens, R., & Venkatesh, V. (2022). Disengaged but Still Radical? Pathways Out of Violent Right-Wing Extremism. *Terrorism and Political Violence*, 1-26. https://doi.org/10.1080/09546553.2022.2082288
- Glaser, B., & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Aldine.
- Glenn, C., Rowan, M., Caves, J., & Nada, G. (2019). *Timeline: The rise, spread, and fall of the Islamic State*. Wilson Center. https://www.wilsoncenter.org/article/timeline-the-rise-spread-and-fall-the-islamic-state
- Gordon Jr, R. S. (1983). An operational classification of disease prevention. *Public Health Reports*, 98(2), 107-109.
- Gunning, J. (2007). Babies and bathwaters: Reflecting on the pitfalls of critical terrorism studies. *European Political Science*, *6*(3), 236-243. https://doi.org/10.1057/palgrave.eps.2210144
- Hamming, T. R. (2019). Global jihadism after the Syria war. *Perspectives on Terrorism*, 13(3), 1-16.
- Hasisi, B., Carmel, T., Weisburd, D., & Wolfowicz, M. (2020). Crime and terror: Examining criminal risk factors for terrorist recidivism. *Journal of Quantitative Criminology*, 36(3), 449-472. https://doi.org/10.1007/s10940-019-09415-y

Hassan, G., Brouillette-Alarie, S., Alava, S., Frau-Meigs, D., Lavoie, L., Fetiu, A., Varela, W., Borokhovski, E., Venkatesh, V., & Rousseau, C. (2018). Exposure to extremist online content could lead to violent radicalization: A systematic review of empirical evidence. *International Journal of Developmental Science*, 12(1-2), 71-88. https://doi.org/10.3233/DEV-170233

- Haubl, R., & Lohl, J. (2020). Tiefenhermeneutik. In *Handbuch Qualitative Forschung in der Psychologie* (pp. 555-577). Springer.
- Hegghammer, T. (2006). Global jihadism after the Iraq war. *The Middle East Journal*, 60(1), 11-32.
- Heide-Ottosen, S., Abdi, Y., Nor, A. A., Khalil, J., & Zeuthen, M. (2022). *Journeys through Extremism: The Experiences of Former Members of Al-Shabaab*. U.S. Institute of Peace. https://www.resolvenet.org/research/journeys-through-extremism-experiencesformer-members-al-shabaab
- Hellmuth, D. (2013). Countering Islamist Radicalization in Germany. *CTC Sentinel*, 6(1), 13-17.
- Hofinger, V., & Schmidinger, T. (2020). 'Muhajirun' from Austria. Why they left to join ISIS and why they don't return. *Journal for Deradicalization*, 22, 287-318.
- Hogg, M. A., Kruglanski, A., & van den Bos, K. (2013). Uncertainty and the roots of extremism. *Journal of Social Issues*, 69(3), 407-418. https://doi.org/10.1111/josi.12021
- Horgan, J. (2008a). Deradicalization or disengagement? A process in need of clarity and a counterterrorism initiative in need of evaluation. *Perspectives on Terrorism*, 2(4), 3-8.
- Horgan, J. (2008b). From profiles to pathways and roots to routes: Perspectives from psychology on radicalization into terrorism. *The ANNALS of the American Academy of Political and Social Science*, 618(1), 80-94. https://doi.org/10.1177/0002716208317539
- Horgan, J. (2009a). Individual disengagement: A psychological analysis. In T. Bjørgo & J. Horgan (Eds.), *Leaving terrorism behind* (pp. 17-29). Routledge.
- Horgan, J. (2009b). Walking away from terrorism: Accounts of disengagement from radical and extremist movements. Routledge.
- Horgan, J., & Altier, M. B. (2012). The future of terrorist de-radicalization programs. *Georgetown Journal of International Affairs*, 83-90.
- Horgan, J., & Taylor, M. (2011). Disengagement, de-radicalization and the arc of terrorism: Future directions for research. In R. Coolsaet (Ed.), *Jihadi terrorism and the radicalisation challenge: European and American experiences* (pp. 173-186). Ashgate.
- Hummel, K. (2014). Salafismus in Deutschland-Eine Gefahrenperspektive neu bewertet. *Totalitarismus und Demokratie, 11*(1), 95-122.

Hunter, L. Y., Ginn, M. H., Storyllewellyn, S., & Rutland, J. (2021). Are mass shootings acts of terror? Applying key criteria in definitions of terrorism to mass shootings in the United States from 1982 to 2018. *Behavioral Sciences of Terrorism and Political Aggression*, 13(4), 265-294. https://doi.org/10.1080/19434472.2020.1762108

- Institute for Economics & Peace. (2022). Global Terrorism Index 2022: Measuring the Impact of Terrorism. http://visionofhumanity.org/resources
- Jensen, M. A., Atwell Seate, A., & James, P. A. (2020). Radicalization to violence: A pathway approach to studying extremism. *Terrorism and Political Violence*, 32(5), 1067-1090. https://doi.org/10.1080/09546553.2018.1442330
- Jensen, M. A., James, P., & Yates, E. (2020). Contextualizing disengagement: How exit barriers shape the pathways out of far-right extremism in the United States. *Studies in Conflict & Terrorism*, 1-29. https://doi.org/10.1080/1057610X.2020.1759182
- Keatley, D. A., Golightly, H., Shephard, R., Yaksic, E., & Reid, S. (2021). Using Behavior Sequence Analysis to Map Serial Killers' Life Histories. *Journal of Interpersonal Violence*, 36(5-6), 2906-2928. https://doi.org/10.1177/0886260518759655
- Kiefer, M. (2021). Radikalisierungsprävention in Deutschland-ein Problemaufriss. In Radikalisierungsprävention in Deutschland. Mapping und Analyse von Präventions-und Distanzierungsprojekten im Umgang mit islamistischer Radikalisierung (pp. 29-45). MAPEX-Forschungsverbund.
- King, M., & Taylor, D. M. (2011). The radicalization of homegrown jihadists: A review of theoretical models and social psychological evidence. *Terrorism and Political Violence*, 23(4), 602-622. https://doi.org/10.1080/09546553.2011.587064
- Koehler, D. (2016). *Understanding deradicalization: Methods, tools and programs for countering violent extremism*. Routledge.
- Koller, S. (2021). Themenpapier: Zusammenarbeit in der Tertiärprävention von islamistischem Extremismus; InFoEx Workshop, 30. September-1. Oktober 2020. https://dgap.org/sites/default/files/article_pdfs/dgap-report-2021-16-de.pdf
- Koller, S., Silke, A., Lempp, M., & Möller, K. (2021). Themenpapier: Rückfälligkeit bei islamistischen Extremisten verhindern; InFoEx Workshop, Berlin, 28.-29. Mai 2020 (1866-9182).
 https://dgap.org/sites/default/files/article_pdfs/issuepaper_recidivism_deutsch.pdf
- König, H.-D. (2018). Dichte Interpretation. In J. König, N. Burgermeister, M. Brunner, P. Berg, & H.-D. König (Eds.), *Dichte Interpretation: Tiefenhermeneutik als Methode qualitativer Forschung* (pp. 13-86). Springer.
- Krause, S., & Friedmann, R. (2021). Vorstellung des Radikalisierungspräventionsprogramms "Blickwechsel". In *MOTRA-Monitor 2020* (pp. 417). MOTRA Bundeskriminalamt Forschungsstelle Terrorismus/Extremismus.

Kruglanski, A. W., Gelfand, M. J., Bélanger, J. J., Sheveland, A., Hetiarachchi, M., & Gunaratna, R. (2014). The psychology of radicalization and deradicalization: How significance quest impacts violent extremism. *Political Psychology*, *35*, 69-93. https://doi.org/10.1111/pops.12163

- LaFree, G., & Miller, E. (2008). Desistance from terrorism: What can we learn from criminology? *Dynamics of Asymmetric Conflict, 1*(3), 203-230. https://doi.org/10.1080/17467580902718130
- Langer, P. C. (2016). The research vignette: Reflexive writing as interpretative representation of qualitative inquiry—A methodological proposition. *Qualitative Inquiry*, 22(9), 735-744. https://doi.org/10.1177/1077800416658066
- Laub, J. H., & Sampson, R. J. (2001). Understanding desistance from crime. *Crime and Justice*, 28, 1-69. https://doi.org/10.1086/652208
- Leimbach, K. (2020). Qualitative (De-) Radikalisierungsforschung: Hindernisse und Potenziale "Sag wie hast Du's mit der Kriminologie?" Die Kriminologie im Gespräch mit ihren Nachbarsdisziplinen. Tagung der Kriminologischen Gesellschaft, Wien.
- Leuschner, V., Fiedler, N., Schultze, M., Ahlig, N., Göbel, K., Sommer, F., Scholl, J., Cornell, D., & Scheithauer, H. (2017). Prevention of targeted school violence by responding to students' psychosocial crises: The NETWASS program. *Child Development*, 88(1), 68-82. https://doi.org/10.1111/cdev.12690
- Levitt, H. M. (2021). Qualitative generalization, not to the population but to the phenomenon: Reconceptualizing variation in qualitative research. *Qualitative Psychology*, 8(1), 95-110. https://doi.org/10.1037/qup0000184
- Lloyd, M., & Kleinot, P. (2017). Pathways into terrorism: The Good, the Bad and the Ugly. *Psychoanalytic Psychotherapy*, *31*(4), 367-377. https://doi.org/10.1080/02668734.2017.1360380
- Lorenzer, A. (2013). Szenisches Verstehen: zur Erkenntnis des Unbewußten (Vol. 1). Tectum Wissenschaftsverlag.
- Lösel, F., King, S., Bender, D., & Jugl, I. (2018). Protective factors against extremism and violent radicalization: A systematic review of research. *International Journal of Developmental Science*, *12*(1-2), 89-102. https://doi.org/10.3233/DEV-170241
- Lützinger, S., Gruber, F., & Hedayat, A. (2020). Extremismuspräventionslandschaft-eine Bestandsaufnahme präventiver Angebote in Deutschland sowie ausgewählter Präventionsstrategien aus dem europäischen Ausland. *Handbuch Extremismusprävention. Gesamtgesellschaftlich, Phänomenübergreifend. Wiesbaden: Bundeskriminalamt (BKA)*, 597-626.
- Lynch, O., & Joyce, C. (2018). Applying psychology: The case of terrorism and political violence. Wiley.

Macdougall, A. I., van der Veen, J., Feddes, A. R., Nickolson, L., & Doosje, B. (2018). Different strokes for different folks: The role of psychological needs and other risk factors in early radicalisation. *International Journal of Developmental Science*, 12(1-2), 37-50. https://doi.org/10.3233/DEV-170232

- Malthaner, S., & Lindekilde, L. (2017). Analyzing Pathways of Lone-Actor Radicalization: A Relational Approach. In M. Stohl, R. Burchill, & S. H. Englund (Eds.), *Constructions of terrorism* (pp. 163-180). University of California Press. https://doi.org/10.1525/9780520967397-014
- Marsden, S. V. (2016). Reintegrating extremists: Deradicalisation and desistance. Springer.
- Maruna, S., & Farrall, S. (2004). *Desistance from crime: A theoretical reformulation*. VS Verlag für Sozialwissenschaften.
- McCauley, C., & Moskalenko, S. (2017). Understanding political radicalization: The two-pyramids model. *American Psychologist*, 72(3), 205-216. https://doi.org/10.1037/amp0000062
- Moeller, M., & Pelzer, R. (2022). Merkmale dschihadistischer Selbstverortung in sozialen Medien und ihr Bezug zur Wirklichkeit: Eine quantitative und qualitative Inhaltsanalyse. In U. Birsl, J. Junk, M. Kahl, & R. Pelzer (Eds.), *Inszenieren und Mobilisieren: Rechte und islamistische Akteure digital und analog* (pp. 245-286). Verlag Barbara Budrich.
- Moeller, M. J. (2020). Social Media as a Mirror of External Circumstances: Insights Into a Radical Group. *Global Network on Extremism and Technology Insights*. https://gnet-research.org/2020/06/10/social-media-as-a-mirror-of-external-circumstances-insights-into-a-radical-group/
- Moeller, M. J., Langer, P. C., & Scheithauer, H. (2022). Motivational Dynamics of German Salafist Jihadists: A multi-methodical in-depth study of three paradigmatic cases. *Frontiers in Psychology - Forensic and Legal Psychology*. https://doi.org/10.3389/fpsyg.2022.1009222
- Moeller, M. J., & Scheithauer, H. (2022). Developmental and Biographical Issues in Radicalization Pathways: A Comparative Case Analysis of Homegrown German Convicts of Islamist Terrorism-Related Offenses. *Terrorism and Political Violence*. https://doi.org/10.1080/09546553.2022.2139689
- Moghaddam, F. M. (2005). The staircase to terrorism: A psychological exploration. *American Psychologist*, 60(2), 161–169. https://doi.org/10.1037/0003-066X.60.2.161
- Morrison, J. F. (2020). *Analyzing Interviews with Terrorists* (Resolve Network, Researching Violent Extremism Series, Issue. RESOLVE Network. https://www.resolvenet.org/system/files/202011/RSVE_RVESeries_Morrison_November2020.pdf
- Neumann, P., & Kleinmann, S. (2013). How rigorous is radicalization research? *Democracy and Security*, 9(4), 360-382.

Neumann, P. R. (2003). The trouble with radicalization. *International Affairs*, 89(4), 873-893.

- Noel, J. G., Wann, D. L., & Branscombe, N. R. (1995). Peripheral ingroup membership status and public negativity toward outgroups. *Journal of personality and social psychology*, 68(1), 127-137. https://doi.org/10.1037/0022-3514.68.1.127
- Pelzer, R., & Moeller, M. (2022). Germany: Individual Variations in Relational Mechanisms of Radicalization. In T. Balzacq & E. Settoul (Eds.), *Radicalization in Theory and Practice: Understanding Religious Violence in Western Europe* (pp. 186-211). University of Michigan Press. https://doi.org/10.3998/mpub.12202059
- Pelzer, R., & Moeller, M. J. (2020). *Rehabilitation and Reintegration of Released Islamist Extremists in Germany*. Counter Extremism Project. https://www.counterextremism.com/sites/default/files/CEP%20Report_Rehabilitation%20and%20Reintegration Aug%202020.pdf
- Pfundmair, M., Aßmann, E., Kiver, B., Penzkofer, M., Scheuermeyer, A., Sust, L., & Schmidt, H. (2022). Pathways toward Jihadism in Western Europe: An empirical exploration of a comprehensive model of terrorist radicalization. *Terrorism and Political Violence*, *34*(1), 48-70. https://doi.org/10.1080/09546553.2019.1663828
- Pisoiu, D., & Köhler, D. (2013). Individuelle Loslösung von Radikalisierungsprozessen. Stand der Forschung und eine Überprüfung bestehender Theorien anhand eines Ausstiegsfalls aus dem militanten Salafismus. *Journal Exit-Deutschland. Zeitschrift für Deradikalisierung und demokratische Kultur, 2*, 241-274.
- Pisoiu, D., Zick, A., Srowig, F., Roth, V., & Seewald, K. (2020). Factors of Individual Radicalization into Extremism, Violence and Terror the German Contribution in a Context. *International Journal of Conflict and Violence (IJCV)*, 14, 1-13. https://doi.org/10.4119/ijcv-3803
- Qureshi, H. A., & Ünlü, Z. (2020). Beyond the paradigm conflicts: A four-step coding instrument for grounded theory. *International Journal of Qualitative Methods*, 19, 1-10. https://doi.org/10.1177/1609406920928188
- Radicalisation Awareness Network. (2017). RAN Manual Responses to returnees: Foreign terrorist fighters and their families. https://ec.europa.eu/homeaffairs/system/files en?file=2020-09/ran br a4 m10 en.pdf
- Raets, S. (2022). Desistance, disengagement, and deradicalization: a cross-field comparison. International journal of offender therapy and comparative criminology. https://doi.org/10.1177/0306624x221102802
- Rapoport, D. C. (2004). The four waves of modern terrorism. In A. K. Cronin & J. Ludes (Eds.), *Attacking Terrorism: Elements of a Grand Strategy* (pp. 46-73). Georgetown University Press.
- Renard, T. (2020). Overblown: Exploring the gap between the fear of terrorist recidivism and the evidence. *CTC Sentinel*, 13(4), 19-29.

Rosenthal, G. (1995). Erlebte und erzählte Lebensgeschichte: Gestalt und Struktur biographischer Selbstbeschreibungen. Campus Verlag.

- Ruch, F. L., & Zimbardo, P. G. (1975). Lehrbuch der Psychologie: eine Einführung für Studenten der Psychologie, Medizin und Pädagogik. Springer-Verlag.
- Sadowski, F., Rossegger, A., Pressman, E., Rinne, T., Duits, N., & Endrass, J. (2017). Das Violent Extremism Risk Assessment Version 2 Revised (VERA-2R): eine Skala zur Beurteilung des Risikos extremistischer Gewalt; Deutsche Übersetzung. *Kriminalistik*(5), 335-342.
- Sageman, M. (2008). A strategy for fighting international Islamist terrorists. *The ANNALS of the American Academy of Political and Social Science*, 618(1), 223-231. https://doi.org/10.1177/0002716208317051
- Sageman, M. (2014). The stagnation in terrorism research. *Terrorism and Political Violence*, 26(4), 565-580. https://doi.org/10.1080/09546553.2014.895649
- Scarcella, A., Page, R., & Furtado, V. (2016). Terrorism, radicalisation, extremism, authoritarianism and fundamentalism: A systematic review of the quality and psychometric properties of assessments. *PloS one*, *11*(12), 1-19. https://doi.org/10.1371/journal.pone.0166947
- Schreiber, M., Scheithauer, H., & Schendel, A. (2020). At the forefront of prevention work: How schools in Europe can contribute to effective radicalisation prevention (Cluster of Policy Briefs, Issue. https://www.firstlinepractitioners.com/wp-content/uploads/2020/11/D8.6_ClusterofPolicyBriefs.pdf
- Schütze, F. (1976). Zur Hervorlockung und Analyse von Erzählungen thematisch relevanter Geschichten im Rahmen soziologischer Feldforschung: dargestellt an einem Projekt zur Erforschung von kommunalen Machtstrukturen. In A. Weymann (Ed.), Kommunikative Sozialforschung: Alltagswissen und Alltagshandeln, Gemeindemachtforschung, Polizei, politische Erwachsenenbildung (pp. 159-260). Fink.
- Schütze, F. (1981). Prozeßstrukturen des Lebensablaufs. In J. Matthes (Ed.), Kolloquium am Sozialwissenschaftl. Forschungszentrum der Universität Erlangen-Nürnberg (pp. 67-156). Verlag der Nürnberger Forschungsvereinigung e. V.
- Schuurman, B. (2019). Topics in terrorism research: reviewing trends and gaps, 2007-2016. *Critical Studies on Terrorism*, 12(3), 463-480. https://doi.org/10.1080/17539153.2019.1579777
- Schuurman, B., & Bakker, E. (2016). Reintegrating jihadist extremists: evaluating a Dutch initiative, 2013–2014. *Behavioral Sciences of Terrorism and Political Aggression*, 8(1), 66-85. https://doi.org/10.1080/19434472.2015.1100648
- Silber, M. D., & Bhatt, A. (2007). *Radicalization in the West: The homegrown threat*. The New York City Police Department. https://info.publicintelligence.net/NYPDradicalization.pdf

Silke, A. (2003). Becoming a terrorist. In A. Silke (Ed.), *Terrorists, victims and society: Psychological perspectives on terrorism and its consequences* (pp. 29-53). Wiley. https://doi.org/10.1002/9780470713600.ch2

- Silke, A. (2008). Holy warriors: Exploring the psychological processes of jihadi radicalization. *European Journal of Criminology*, *5*(1), 99-123. https://doi.org/https://doi.org/10.1177/1477370807084226
- Silke, A., & Schmidt-Petersen, J. (2017). The golden age? What the 100 most cited articles in terrorism studies tell us. *Terrorism and Political Violence*, 29(4), 692-712. https://doi.org/10.1080/09546553.2015.1064397
- Sommer, F., Leuschner, V., Fiedler, N., Madfis, E., & Scheithauer, H. (2020). The role of shame in developmental trajectories towards severe targeted school violence: an indepth multiple case study. *Aggression and Violent Behavior*, *51*, 1-13. https://doi.org/10.1016/j.avb.2020.101386
- Sonka, C., Meier, H., Rossegger, A., Endrass, J., Profes, V., Witt, R., & Sadowski, F. (2020). RADAR-iTE 2.0: Ein Instrument des polizeilichen Staatsschutzes. *Kriminalistik*, 74(6), 386-392.
- The Soufan Group. (2015). Foreign Fighters: An Updated Assessment of the Flow of Foreign Fighters into Syria and Iraq.

 https://www.cvereferenceguide.org/sites/default/files/resources/TSG_ForeignFighters Update3.pdf
- United Nations Security Council. (2014, 24 September 2014). *Resolution 2178 (2014)* https://documents-ddsny.un.org/doc/UNDOC/GEN/N14/547/98/PDF/N1454798.pdf? OpenElement
- Veldhuis, T., & Staun, J. (2009). *Islamist radicalisation: A root cause model*. Netherlands Institute of International Relations Clingendael. https://www.diis.dk/files/media/publications/import/islamist_radicalisation.veldhuis_a nd_staun.pdf
- Vidino, L., Marone, F., & Entenmann, E. (2017). Fear the neighbor: Radicalization and Jihadist attacks in the West. Ledizioni. https://www.ispionline.it/it/pubblicazione/fear-thy-neighbor-radicalization-and-jihadist-attacks-west-16784
- Violence Prevention Network. (2012). *TRIAS Berlin. Kompendium*. https://violence-prevention-network.de/wp-content/uploads/2022/01/2022-01-31-TRIAS-Berlin-Kompendium.pdf
- Violence Prevention Network. (2020a). Just X Berlin
- Prävention und Deradikalisierung im Berliner Justizvollzug. https://violence-prevention-network.de/wp-content/uploads/2020/11/Flyer-JUST-X-Berlin.pdf
- Violence Prevention Network. (2020b). *NEXUS Psychologisch-therapeutisches Netzwerk* "*Justiz und Extremismus*". https://violence-prevention-network.de/wp-content/uploads/2021/01/Broschuere-Just-X-Nexus.pdf

Waleciak, J. (2021). Die Handlungspraxis der Deradikalisierungs-arbeit in Deutschland-Eine explorative Systematisierung der praktischen Ansätze. In *Radikalisierungsprävention in Deutschland. Mapping und Analyse von Präventions- und Distanzierungsprojekten im Umgang mit islamistischer Radikalisierung* (pp. 115-143). MAPEX-Forschungsverbund

- Whittaker, J. (2022). Rethinking online radicalization. *Perspectives on Terrorism*, 16(4), 27-40.
- Wiedl, N. (2014a). Außenbezüge und ihre Kontextualisierung und Funktion in den Vorträgen ausgewählter salafistischer Prediger in Deutschland. Zentrum für EUropäische Friedens- und Sicherheitsstudien.
- Wiedl, N. (2014b). Geschichte des Salafismus in Deutschland. In B. T. Said & H. Fouad (Eds.), *Salafismus. Auf der Suche nach dem wahren Islam* (pp. 411-441). Herder. https://www.academia.edu/7626176/Geschichte_des_Salafismus_in_Deutschland
- Wiktorowicz, Q. (2004). *Joining the cause: Al-Muhajiroun and radical Islam*. Department of International Studies, Rhodes College.
- Wiktorowicz, Q. (2005). *Radical Islam rising: Muslim extremism in the West*. Rowman & Littlefield Publishers.
- Wolfowicz, M., Litmanovitz, Y., Weisburd, D., & Hasisi, B. (2020). A field-wide systematic review and meta-analysis of putative risk and protective factors for radicalization outcomes. *Journal of Quantitative Criminology*, *36*(3), 407-447. https://doi.org/10.1007/s10940-019-09439-4
- Wolfowicz, M., Litmanovitz, Y., Weisburd, D., & Hasisi, B. (2021). Cognitive and behavioral radicalization: A systematic review of the putative risk and protective factors. *Campbell Systematic Reviews, 17*(3), 1-90. https://doi.org/10.1002/cl2.1174

Funding Sources 132

Funding Sources

Dieses Promotionsprojekt entwickelte sich aus den Verbundforschungsprojekten PANDORA-Propaganda - Mobilisierung und Radikalisierung zur Gewalt in der virtuellen und realen Welt (gefördert von März 2017 bis Februar 2020 vom Bundesministerium für Bildung und Forschung; Förderkennzeichen: 13N14297–13N14302) und PrADera - Praxisorientierte Analyse von Deradikalisierungsverläufen (gefördert von Oktober 2018 bis Dezember 2020 vom Bundesministerium des Innern und für Heimat im Rahmen des nationalen Präventionsprogramms gegen islamistischen Extremismus; Förderkennzeichen: G-9621-108-2018-Z3). In beiden Projekten war ich als wissenschaftliche Mitarbeiterin am Zentrum Technik und Gesellschaft der Technischen Universität Berlin von Januar 2017 bis Dezember 2020 tätig. Von der Stiftung zur Förderung der universitären Psychoanalyse wurde dieses Promotionsprojekt seit Januar 2020 mit einem Promotionsstipendium gefördert. Die Fördermittelgeber hatten keinen Einfluss auf die Konzeption und Durchführung dieses Promotionsprojektes.

Curriculum Vitae 133

The following section has been removed for data protection reasons.

Curriculum Vitae 134

The following section has been removed for data protection reasons.

List of Publications 135

List of Publications

*Moeller, M. J., & Scheithauer, H. (2022). Developmental and Biographical Issues in Radicalization Pathways: A Comparative Case Analysis of Homegrown German Convicts of Islamist Terrorism-Related Offenses. *Terrorism and Political Violence*. https://doi.org/10.1080/09546553.2022.2139689

- *Moeller, M. J., Langer, P. C., & Scheithauer, H. (2022). Motivational Dynamics of German Salafist Jihadists: A multi-methodical in-depth study of three paradigmatic cases. *Frontiers in Psychology Forensic and Legal Psychology*. https://doi.org/10.3389/fpsyg.2022.1009222
- *Pelzer, R., & Moeller, M. (2022). Germany: Individual Variations in Relational Mechanisms of Radicalization. In T. Balzacq & E. Settoul (Eds.), *Radicalization in Theory and Practice:*Understanding Religious Violence in Western Europe (pp. 186-211). University of Michigan Press. https://doi.org/10.3998/mpub.12202059
- *Part of the cumulative dissertation
- Moeller, M. J., & Pelzer, R. (in press). Distanzierung und Deradikalisierung bei Übergängen: Entlassungs- und Übergangsmanagement. In S. Benz & G. Sotiriadis (Eds.), Deradikalisierung und Distanzierung auf dem Gebiet des islamistischen Extremismus Erkenntnisse der Theorie Erfahrungen aus der Praxis. Springer Nature.
- Emser, C., Haase, I., **Moeller, M.**, Nagel, C., & Pelzer, R. (2022). *Distanzierungsverläufe vom salafistischen Extremismus: eine empirische Studie über die Vielfalt individueller Wege der Loslösung vom Salafismus* (Vol. Band 11). Bundesamt für Migration und Flüchtlinge.
- Pelzer, R., **Moeller, M.**, & Emser, C. (2022). *Distanzierung vom Salafismus* (Ausstieg & Rückkehrer) *Bundeszentrale für politische Bildung*.https://www.bpb.de/politik/extremismus/radikalisierungspraevention/345516/distanzierung-vom-salafismus
- **Moeller, M.**, & Pelzer, R. (2022). Merkmale dschihadistischer Selbstverortung in sozialen Medien und ihr Bezug zur Wirklichkeit: Eine quantitative und qualitative Inhaltsanalyse. In U. Birsl, J. Junk, M. Kahl, & R. Pelzer (Eds.), *Inszenieren und Mobilisieren: Rechte und islamistische Akteure digital und analog* (pp. 245-286). Verlag Barbara Budrich.
- **Moeller, M. J.** (2020). Social Media as a Mirror of External Circumstances: Insights Into a Radical Group. *Global Network on Extremism and Technology Insights*. https://gnet-research.org/2020/06/10/social-media-as-a-mirror-of-external-circumstances-insights-into-a-radical-group/
- Pelzer, R., Emser, C., Haase, I., Nagel, C., & **Moeller, M. J.** (2020). PrADera Praxisorientierte Analyse von Deradikalisierungsprozessen. In U. Kemmesies, P. Wetzels, B. Austin, A. Dessecker, E. Grande, I. Kusche, & D. Rieger (Eds.), *MOTRA-Monitor 2020* (pp. 388-395). Bundeskriminalamt Forschungsstelle Terrorismus/Extremismus. https://doi.org/10.53168/isbn.978-3-9818469-9-7_2021_MOTRA
- Pelzer, R., & Moeller, M. J. (2020). Rehabilitation and Reintegration of Released Islamist Extremists in Germany.

 https://www.counterextremism.com/sites/default/files/CEP%20Report_Rehabilitation%20and%20Reintegration Aug%202020.pdf

Eigenanteil an den Manuskripten

Die Beschreibung des Eigenanteils an den Manuskripten, die Teil der vorliegenden kumulativen Dissertation sind, erfolgt auf Grundlage der *Contributor Roles Taxonomy* (CRediT).

Die Erhebung der Daten, die den Manuskripten 1 und 2 zugrunde liegen, erfolgte in Zusammenarbeit und im Rahmen meiner Tätigkeit im Verbundforschungsprojekt PANDORA- Propaganda - Mobilisierung und Radikalisierung zur Gewalt in der virtuellen und realen Welt (gefördert von März 2017 bis Februar 2020 vom Bundesministerium für Bildung und Forschung; Förderkennzeichen: 13N14297–13N14302).

Die Erhebung der Daten, die dem Manuskript 3 zugrunde liegen, erfolgte in Zusammenarbeit und im Rahmen meiner Tätigkeit im Verbundforschungsprojekt PrADera - Praxisorientierte Analyse von Deradikalisierungsverläufen (gefördert von Oktober 2018 bis Dezember 2020 vom Bundesministerium des Innern und für Heimat im Rahmen des nationalen Präventionsprogramms gegen islamistischen Extremismus; Förderkennzeichen: G-9621-108-2018-Z3).

Manuskript 1: Moeller, M. J., & Scheithauer, H (2022). Developmental and Biographical Issues in Radicalization Pathways: A Comparative Case Analysis of Homegrown German Convicts of Islamist Terrorism-Related Offenses. *Terrorism and Political Violence*. https://doi.org/10.1080/09546553.2022.2139689

MM: Conception, Methodology, Validation, Formal analysis, Investigation, Writing - Original Draft, Writing - Review & Editing, Visualization, Project administration
HS: Writing - Review & Editing

Manuskript 2: Pelzer, R., & Moeller, M. (2022). Germany: Individual Variations in Relational Mechanisms of Radicalization. In T. Balzacq & E. Settoul (Eds.), *Radicalization in Theory and Practice: Understanding Religious Violence in Western Europe* (pp. 186-211). University of Michigan Press. https://doi.org/10.3998/mpub.12202059

MM: Conception, Methodology, Visualization, Formal analysis, Validation, Investigation, Writing - Original Draft, Writing - Review & Editing

RP: Conception, Methodology, Visualization, Formal analysis, Validation, Investigation, Writing - Original Draft, Project administration, Funding acquisition

Manuskript 3: Moeller, M. J., Langer, P. C., & Scheithauer, H. (2022). Motivational Dynamics of German Salafist Jihadists: A multi-methodical in-depth study of three paradigmatic cases. *Frontiers in Psychology - Forensic and Legal Psychology*. https://doi.org/10.3389/fpsyg.2022.1009222.

MM: Conception, Methodology, Validation, Formal analysis, Investigation, Writing - Original Draft, Writing - Review & Editing, Visualization, Project administration

PL: Validation, Writing - Review & Editing

HS: Writing - Review & Editing

Selbstständigkeitserklärung

Hiermit erkläre ich, die vorliegende Dissertation selbstständig verfasst und ohne unerlaubte Hilfe angefertigt habe.

Alle Hilfsmittel, die verwendet wurden, habe ich angegeben. Die Dissertation ist in keinem früheren Promotionsverfahren angenommen oder abgelehnt worden.

Berlin, 14.11.2022	
Datum	Mika Josephine Moeller