

Three Essays on the Determinants of Radicalization

A Case of North-Western Pakistan

Dissertation

submitted in partial fulfillment of the
requirements for the degree of
Doctor rerum politicarum (Dr. rer. pol.)
to the Faculty of Business and Economics
at the TU Dresden

by

Fahim Nawaz

born September 04, 1990 in Peshawar, Pakistan

Supervisors and reviewers:

Prof. Dr. Marcel Thum

Prof. Dr. Christian Leßmann

Date of Submission: 29.08.2022

Date of Defense: 18.11.2022

DECLARATION OF AUTHORSHIP

I, Fahim Nawaz, declare that this thesis titled, Three Essays on the Determinants of Radicalization – A Case of North-Western Pakistan, and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at Technische Universität Dresden.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at Technische Universität Dresden or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

[Signature]

[Date]

ACKNOWLEDGEMENT

First and foremost, I thank the Dresden Leibniz Graduate School (DLGS) for the doctoral scholarship from February 2019 to June 2022. Without this scholarship, this doctoral project would not have started. I thank the Leibniz Institute for Ecological and Regional Development (IOER) for providing a sound academic environment, technical support, and countless opportunities to learn.

I am truly grateful to my supervisor, Prof. Dr. Marcel Thum, for his endless support, scholarly comments, and continuous encouragement. He attended all my presentations, provided prompt feedback on my drafts, and helped me navigate some of my personal problems as well. I also gratefully acknowledge the financial support he arranged for the wrap-up phase of my work. This research project would not have finished without him. Furthermore, I am grateful to my second supervisor, Prof. Dr. Christian Leßmann, for attending my presentations and providing his valuable advice. His suggestions significantly improved my work. I would also like to thank Prof. Dr. Kerim Peren Arin for his warm support and intelligent advice on the methodological aspects of my research project. His comments, suggestions, and thoughtful questions expanded my skill set, which significantly improved this dissertation.

I express my gratitude to my colleagues at DLGS. The support provided by Sarah Carola Strugale and Dr. Shikha Ranjha has been invaluable. Special thanks to my fellow doctoral candidates in DLGS, Jiyeon, Fred, Mengfan, Fitria, Nikita, Tieza, Riyan, Claire, Subhashree, Raghid, and Varsha, for the memorable discussions and interactions. I thank Ulrike Shinke for helping me create the map of the study region. I extend my gratitude to Yvonne Bludau for being very helpful and supportive.

I am thankful to Dr. Noor Jehan, Dr. Altaf Qadir, Dr. Sajjad Ahmad Jan, and Dr. Fariha Sami for their tremendous help in data collection. Their support has been invaluable.

I want to thank the administration of the University of Peshawar for their support and encouragement.

I am grateful to my parents for educating me despite overwhelming odds. Without their love for education, I would not have made this journey.

DEDICATION

To those who lost their lives, limbs, and homes during war in North-Western Pakistan.

CONTENTS

DECLARATION OF AUTHORSHIP	I
ACKNOWLEDGEMENT	II
DEDICATION	III
CONTENTS	IV
LIST OF FIGURES	VIII
LIST OF TABLES	IX
ABBREVIATIONS	X
1 INTRODUCTION	1
2. UNDERSTANDING THE DETERMINANTS OF RADICALIZATION: A SYSTEMATIC REVIEW	4
2.1 Introduction	4
2.2 Scope of the Review	6
2.3 Materials and Methods	7
2.3.1 Database Search	7
2.3.2 Inclusion Criteria	7
2.3.3 Dependent and Independent Variables	7
2.4 Results	8
2.4.1 Distribution of Articles According to the Databases	8
2.4.2 Dependent and Independent Variables	8
2.4.3 Distribution of Publications Over Time	9
2.4.4 Focus of the Studies	9
2.5 Methodology	10
2.5.1 Analytical Techniques	10
2.5.1 Data Sources	11
2.5.2 Sample Size	11
2.6 Geographic Focus	11
2.7 Ideologies	12
2.8 Definitions of Radicalization Used	12
2.9 Radicalization Measures	13

2.10	Micro Factors	13
2.10.1	Mental Health Issues	14
2.10.2	Cognitive Processing/Mechanisms	15
2.10.3	Personal Traums/Troubled Past.....	16
2.10.4	Psychological Needs/Vulnerabilities.....	16
2.11	Macro Factors	17
2.11.1	Structural Factors.....	18
2.11.2	Grievances.....	19
2.12	Meso Factors	19
2.12.1	Group Related Factors	20
2.12.2	Real or Perceived Incentives	21
2.12.3	Socialization Processes	21
2.13	Discussion	22
2.14	Conclusion	23
2.15	Appendix	24
2.15.1	Methods, Data, and Disciplines.....	24
2.15.2	List of the Reviewed Articles	34
3	AN EMPIRICAL ASSESSMENT OF THE DETERMINANTS OF RADICALIZATION: EVIDENCE FROM NORTH-WESTERN PAKISTAN	49
3.1	Introduction	49
3.2	Radicalization in Pakistan – A Brief Overview	51
3.3	Theoretical Framework	53
3.3.1	Micro-level: Psychological Explanations.....	54
3.3.2	Macro-level: Sociopolitical Factors	55
3.3.3	Meso-level: Group/Community-related Factors	56
3.4	Research Design and Methods	57
3.4.1	Participants	57
3.4.2	Radicalization Measure	59
3.5	Results	62
3.5.1	Model 1	65

3.5.2	Model 2	68
3.5.3	Interactions	69
3.6	Discussion and Conclusion	72
3.7	Appendix	74
3.7.1	Descriptive Statistics and Survey Responses	74
3.7.2	Questionnaire/Survey Instrument	82
4	SOCIOECONOMIC FACTORS AND RADICALIZATION IN PAKISTAN: A NON-LINEAR EXPLORATION	90
4.1	Introduction	90
4.2	Socioeconomic Marginalization & Radicalization in Khyber Pakhtunkhwa: A Brief Overview	92
4.3	Theoretical Background	94
4.3.1	Economic Prospects	95
4.3.2	Political Marginalization	95
4.3.3	Relative Deprivation	96
4.3.4	Perceived Injustice	96
4.3.5	Exclusion	96
4.3.6	Perceived Inequality	97
4.3.7	Perceived Oppression	97
4.3.8	Religiosity	97
4.4	Research Design and Methods	98
4.4.1	Participants of the Study	98
4.4.2	Radicalization Measure	99
4.4.3	Method	101
4.5	Results	102
4.5.1	Economic Prospects	104
4.5.2	Political Marginalization	104
4.5.3	Relative Deprivation	104
4.5.4	Perceived Injustice	105
4.5.5	Exclusion	105
4.5.6	Perceived Inequality	106

4.5.7	Perceived Oppression	106
4.5.8	Sociodemographic Controls	107
4.5.9	Robustness Check	107
4.6	Discussion and Conclusion	108
4.7	Appendix	109
4.7.1	Questionnaire/Survey Instrument	109
4.7.2	Descriptive Statistics and Survey Responses	119
4.7.3	Pairwise Correlation Test	137
4.7.4	Linear Regression	138
4.7.5	Threshold Test (Robustness Check)	139
4.7.6	Threshold Regression (Robustness Check)	139
4.7.7	Linear Regression with Squared Terms and Inflection Points	140
4.7.8	Inflection Points (Graphical Illustration)	143
REFERENCES	144

LIST OF FIGURES

Figure 2.1. Distribution of publications over time.....	9
Figure 2.2. Geographic focus	12
Figure 3.1: Map of the Study Region	59
Figure 3.2: Marginal Effects.....	72
Figure 4.1: Map of the Study Region	99
Figure 4.2: Threshold Test	102
Figure 4.2: Threshold Test (Robustness Check)	139
Figure 4.3: Inflection Points (Graphical Illustration)	143

LIST OF TABLES

Table 2.1. Distribution of independent variables.....	8
Table 2.2. Subjects studied.....	10
Table 2.3. Analytical techniques.....	10
Table 2.4. Data sources.....	11
Table 2.5. Ideologies.....	12
Table 2.6. Radicalization measures.....	13
Table 2.7. Micro factors.....	13
Table 2.8. Macro factors.....	17
Table 2.9. Meso factors.....	19
Table 2.10: Methods, data, and disciplines.....	24
Table 3.1: Determinants of Radicalization in Pakistan.....	64
Table 3.2: Interaction Terms.....	70
Table 3.3: Descriptive Statistics and Survey Responses.....	74
Table 4.1: Threshold Regression.....	103
Table 4.2: Descriptive Statistics and Survey Responses.....	119
Table 4.3: Pairwise Correlation Test.....	137
Table 4.4: Linear Regression.....	138
Table 4.5: Threshold Regression (Robustness Check).....	139
Table 4.6: Linear Regression with Squared Terms and Inflection Points.....	140

ABBREVIATIONS

CENTO	Central Treaty Organization
DNA	Deoxyribonucleic Acid
HDI	Human Development Index
IJT	Islami Jamiat-e-Talaba
ISIS	Islamic State of Iraq and Syria
KP	Khyber Pakhtunkhwa
NATO	North Atlantic Treaty Organization
NWFP	North-West Frontier Province
SEATO	Southeast Asia Treaty Organization
USSR	Union of Soviet Socialist Republics
US	United States

1 INTRODUCTION

Terrorism constitutes one of the substantial threats faced by societies across the globe. The increasing terrorist attacks worldwide and the resulting human casualties raise the question of what factors drive individuals to commit or support terrorism (Pfundmair *et al.*, 2022). This brings the concept of radicalization to the fore, which refers to the processes that precede the perpetration of the actual violence. Radicalization and terrorism indicate relative positions on a continuum where radicalization is the pathway to terrorism, and terrorism signifies the final point of violent expression (Sedgwick, 2010; Lombardi, Ragab and Chin, 2014; Pfundmair *et al.*, 2022). Given the potentially devastating consequences of radicalization, understanding why people radicalize, has become an important question for scholars, policymakers, and security officials. The factors that radicalize individuals remain contested, and scholars struggle to reach a consensus about the determinants of radicalization (Vergani *et al.*, 2018). Two reasons contribute to these scholarly disagreements in particular. The first reason relates to the dearth of aggregation and synthesis of the existing scholarly literature on the phenomenon due to fewer systematic reviews (Vergani *et al.*, 2018). The second one stems from the paucity of studies that empirically test the alleged root causes/determinants of radicalization (Schmid, 2013).

This cumulative dissertation aims to contribute to understanding the determinants of radicalization based on three research papers. The first paper undertakes a systematic review of the existing scientific literature on radicalization. The second paper empirically tests the predictive power of the most plausible factors identified in the systematic review. The third paper empirically investigates the existence of non-linearities in the relationship between radicalization and socioeconomic factors.

Paper 1 (chapter 2) undertakes a systematic review of the scientific literature on the determinants of radicalization by reviewing 148 English language articles published between 2001 and 2019. Since 9/11, a considerable number of studies have been published on radicalization. Yet, very few systematic reviews on the phenomenon exist, particularly those that adhere to the standards of transparency and replicability (Vergani *et al.*, 2018).

The first paper of this dissertation maps the existing research on the phenomenon and aggregates the scientific knowledge on radicalization. The paper finds that the existing literature lacks a single-factor explanation of radicalization. Instead, radicalization is considered a process driven by an interplay of micro-level psychological, macro-level socio-political, and meso-level group/community-related factors.

The review paper contributes to the literature in two ways. First, in contrast to the existing reviews that mainly enlist the drivers of radicalization, this paper identifies the determinants as well as the broader methods and specific analytical techniques used in the literature for studying the phenomenon. Second, in addition to the determinants of radicalization, it summarizes several other aspects of the reviewed literature, such as the points of consensus and contestation, the geographical focus of the studies, extremist ideologies, and subjects studied. This provides a comprehensive overview of the field.

The following two papers draw on a novel, unique data set. From December 2019 to March 2020, I carried out surveys among undergraduate students in the Khyber Pakhtunkhwa (KP) province of Pakistan. KP is one of the four Pakistani provinces, which is located in the country's northwest along the border of Afghanistan. It remained the main training and recruitment ground of the Afghan Taliban during the Cold War. After 9/11, KP became the epicenter of Taliban and Al-Qaeda's jihadist efforts following the commencement of the war on terror. At present, this region is increasingly experiencing religious violence in several forms, such as suicide attacks, targeted killings, and blasphemy vigilantism.

A total of 510 undergraduate students from 19 universities in KP participated in the survey. A particularly salient aspect of the data is the significant female participation in the survey (52% of the participants are women). Such participation is usually constrained by cultural barriers and security issues.

Paper 2 (chapter 3) empirically tests the relationship between radicalization and a diverse set of micro, macro, and meso factors. Micro factors refer to the psychological roots of individual radicalization, which include mental health issues, personal traumas, and psychological needs/vulnerabilities. Macro factors are the socio-political drivers of radicalization, which include issues such as poverty, marginalization, discrimination, and injustice. Meso factors are the social forces/influences, which include factors such as peer influence, exposure to radical social networks, exposure to propaganda, and charismatic leaders. For empirical analysis, this paper estimates an ordinary least squares regression model using survey data collected in KP.

The second paper finds that radicalization is predicted by the individual-level experience of adverse life events, macro-level economic and political marginalization, meso-level group/community influences such as Salafism, and sociodemographic characteristics, especially gender. Moreover, the study detects a null relationship between religiosity and radicalization. This contests several studies that considered religious influence to be crucial to radicalization in Pakistan (e.g., Zaman, 1998; Noor and Hussain, 2010; Khan and Kiran, 2012; Aziz, 2015; Haque, 2014). On the other hand, the statistically significant positive relationship between Salafism and radicalization indicates that instead of religiosity per se,

specific religious ideologies, such as Salafism, could be instrumental in radicalizing individuals.

The contribution of paper 2 to the literature is two-fold. First, it jointly tests the predictive power of micro, macro, meso factors. Second, it investigates the existence of conditional relationships between variables by adding interaction terms to the linear regression. Despite the emphasis, few studies have used these empirical strategies to assess the determinants of radicalization (Schmid, 2013; Vergani *et al.*, 2018).

Paper 3 (chapter 4) studies the relationship between radicalization and socioeconomic factors through the non-linear threshold regression method developed by Hansen (2000), using survey data from the Khyber Pakhtunkhwa province of Pakistan.

The presumed relationship between socioeconomic factors and radicalization receives considerable attention from academics, policymakers, and journalists. But the existing research shows mixed evidence for this relationship. Most studies use linear models to investigate the relationship between radicalization and socioeconomic factors (Franc and Pavlović, 2021). However, the linearity assumption may not hold up in all cases (Arin *et al.*, 2021). Paper 3 proposes a non-linear relationship between socioeconomic factors and radicalization. It hypothesizes that socioeconomic hardships drive radicalization only in sufficiently religious people, thereby implying a non-linear relationship. The study tests this hypothesis using religiosity as a threshold variable in the relationship between radicalization and the explanatory variables. Results support this hypothesis. The paper finds that radicalization has a statistically significant positive relationship with indicators of the individual level socioeconomic conditions such as the perceptions of poor economic prospects, individual relative deprivation, injustice, and inequality only above the religiosity threshold. This implies that as a result of the lower opportunity costs of extreme acts during socioeconomic hardships, the likelihood of committing or supporting such acts for obtaining religiously inspired mental rewards should be the highest for the economically disadvantaged, religious individuals.

Paper 3 contributes to the literature in two ways. First, it uses novel survey data from the Khyber Pakhtunkhwa province of Pakistan, which exhibits a unique combination of socioeconomic marginalization, militant groups, and religious violence. Second, it demonstrates the existence of non-linearities in the relationship between radicalization and socioeconomic factors.

All the three papers of this cumulative dissertation are single-authored by me.

2. UNDERSTANDING THE DETERMINANTS OF RADICALIZATION: A SYSTEMATIC REVIEW

Radicalization currently looms as a formidable challenge for several nations. While it continues to flare across the world, empirical evidence and consensus regarding its determinants remain scarce. To map the existing research on the phenomenon, this study undertakes a systematic review of the scientific literature on radicalization by including 148 English language articles published between 2001 and 2019. The findings suggest that radicalization is a complex process that brews within a certain context through the interplay of psychological, socio-political, and community-related factors. Although the interaction among these factors is increasingly advocated to have the potential to explain radicalization, the specific combinations, linkages, channels, and paths remain largely unspecified within the literature. Such a specification and the subsequent multi-layered analysis encompassing interactions are needed to understand the phenomenon better. The role of certain structural factors, such as regional inequalities and differences in economic development that furnishes a context conducive to radicalization, also needs to be analyzed.

Keywords: Radicalization, Political Violence, Extremism

2.1 Introduction

The world faces multifaceted threats posed by radicalization – a phenomenon associated with extremist cognitions and violent acts (McCauley and Moskalenko, 2008). While radicalization continues to flare, the scholarly literature exhibit discords on the factors, profiles, or pathways that may explain the phenomenon. Such discords are reinforced by the lack of systematic reviews that map the field and aggregate the scientific knowledge produced on radicalization. The 9/11 attacks in the US, the 2004 bombings in Madrid, and the 2005 bombings in London invoked a multidisciplinary interest in understanding and modeling the drivers of radicalization. As a result, a considerable number of studies have been published on this phenomenon since then. Despite this, the systematic reviews of the literature on radicalization that fulfill the standards of transparency and replicability exist in scant numbers (Vergani *et al.*, 2018).

One key reason that hinders systematic reviews on radicalization is the ambiguity and scholarly disagreement that surrounds its meaning (Vergani *et al.*, 2018). The term radicalization is used mainly in three varying contexts: the security context, the integration context, and the foreign policy context. In the security context, the distinction between moderate and radical is made by considering the threats to individual or state security. The integration context makes this distinction by considering issues related to citizenship, cultural assimilation, and cohesion. While the foreign policy context draws the line by

considering the agendas of the foreign governments. Besides, each of these contexts can be disaggregated at two further levels at least: the public and political level and an analytical and official level. Therefore, the absolute usage of the term, which manifests different meanings/contexts, yields serious ambiguity (Sedgwick, 2010). As a result, the definition of the phenomenon also remains contested among scholars. Given these ambiguities and scholarly discords, the literature on the basic mechanisms/drivers of the radicalization process remains largely inconclusive. However, tentative evidence (e.g., Vergani *et al.*, 2018) suggests that systematic reviews can help decipher the factors and processes underlying radicalization as well as the scholarly consensus regarding these. Therefore, this paper systematically reviews the empirical literature on radicalization published between 2001 and 2019. By aggregating and analyzing the scientific knowledge on radicalization, this study aims to answer the following questions.

1. Which micro, macro, and meso factors or any combinations thereof predict radicalization?
2. Is there any homogeneity/heterogeneity regarding the factors across the regions of the world?
3. In terms of subject (e.g., general population, groups, terrorists, etc.), which one is predominantly focused on by the research on radicalization?
4. Do the determinants vary according to the focus of the study?
5. How is the concept of radicalization operationalized and measured?
6. Which methods are predominantly employed in the existing empirical literature to study radicalization?
7. What are the points of consensus and contestation within the reviewed literature?

This review adds to the literature on radicalization in several ways. The existing reviews usually classify the determinants of radicalization into micro-level psychological, macro-level sociopolitical, and meso-level group/community-related categories. While this broad categorization offers important insights, it creates operationalization challenges for empirical analyses since it risks overlap between variables that may depict different levels of radicalization (Vergani *et al.*, 2018). To establish a clearer theoretical distinction, this study enlists the determinants into narrower and relatively exclusive sub-categories using insights from the reviewed articles. Apart from facilitating empirical inquiry, this may help devise appropriate assessment and prevention measures.

While discussing methodologies, the existing reviews primarily report summary statistics of the general methods used in the field, such as qualitative, quantitative, or mix-methods approaches, etc. They usually do not describe the analytical techniques through which the important determinants or causal linkages are identified. To provide a more comprehensive map of the field, this study reports the general methods as well as the specific techniques

and data sources used in the reviewed articles. This may help diversify the set of methods employed for studying radicalization.

The existing reviews usually identify and list the plausible determinants of radicalization without describing their underlying mechanisms. By building on the reviewed literature, this study provides brief insights into the processes through which various factors may drive the radicalization process. This may furnish a consolidated and somewhat encompassing view of the field.

Scholars on radicalization tend to contest several facets of the field, ranging from definitions to methodological aspects. Nevertheless, the growing number of publications have, in fact, produced consensus in certain areas. By accounting for the points of consensus and contestation within the reviewed literature, this study highlights the progress made so far, which could be helpful for future research.

2.2 Scope of the Review

Radicalization is 'the psychological, emotional and behavioral process by which an individual adopts an ideology that promotes the use of violence for the attainment of political, economic, religious or social goals'¹ (Jensen, Atwell Seate and James, 2018). This definition distinguishes between two types of radicalization; cognitive and behavioral radicalization. Cognitive radicalization is the adoption or internalization of extremist thoughts, beliefs, or ideologies. In contrast, behavioral radicalization refers to the engagement/recruitment into militant groups or the perpetration of violent acts (Vergani *et al.*, 2018). The current paper adopts this distinction and classifies the reviewed studies accordingly.

In the existing literature, a diverse range of factors are mentioned as the determinants of radicalization, which, in most cases, are not mutually exclusive. Despite overlaps, a theoretical distinction is required to make analysis and comparison possible (Vergani *et al.*, 2018). Such a distinction is adopted from McCauley & Moskalenko (2008) and Kleinmann (2012), who distinguished the drivers of radicalization into the individual, group, and mass levels factors. In the evolving literature, these distinctions are alternatively termed as personal, push and pull factors (Dzhekova *et al.*, 2016; Vergani *et al.*, 2018) as well as micro, macro, and meso factors (Rink & Sharma, 2018). Drawing on these, this paper classifies the determinants of radicalization into micro, macro, and meso categories.

¹ There are other definitions of radicalization as well (e.g., Borum, 2011; Groppi, 2017; Hardy, 2018; P. R. Neumann, 2013; Rink & Sharma, 2018; Süß & Noor Baheige Aakhunzzada, 2019; Taylor & Soni, 2017; Veldhuis & Staun, 2009).

In addition to the dependent and independent variables, numerous other aspects of the reviewed studies are also analyzed. These include methodological details, geographic focus, salient ideologies, definitions, subjects studied, and the manner in which radicalization is operationalized and measured.

2.3 Materials and Methods

The methodology of this paper consists of three steps. First, a systematic search was performed in the relevant scholarly literature databases. Second, the search results were scrutinized using the inclusion criterion, and the relevant publications were selected. Third, the selected publications were reviewed, coded, classified, and analyzed.

2.3.1 Database Search

In December 2019, the terms "radicalization" and "radicalisation" were used for searching these databases: Web of Science, EconLit, ScienceDirect, Sage Journals, PsycINFO, and PubMed. Using a Boolean operator in between, the exact search term was 'radicalization OR radicalisation', accounting for both American and British spellings. The initial search yielded 6,394 results which were subjected to the inclusion criteria.

2.3.2 Inclusion Criteria

The results of the initial search were scrutinized using five-point inclusion criteria. First, only journal articles were included, thereby excluding book chapters/reviews, conference proceedings, editorial letters, and items that constitute the grey literature. This was done to ensure that the reviewed articles adhere to the tenets of good scientific practice, such as transparency and peer-review. Second, only English-language articles were considered. The author acknowledges that this may have excluded relevant studies published in other languages. Third, articles published solely between 2001 and December 2019 were included. Fourth, only those articles were chosen that studied/assessed the determinants of radicalization. Fifth, only those articles were considered that included empirical evidence such as survey data, interviews, biographies, or secondary data, etc.

2.3.3 Dependent and Independent Variables

The dependent variable for this study is radicalization which is further disaggregated into cognitive and behavioral radicalization.

The independent variables belong to three different categories (micro, macro, and meso), which are sometimes non-exclusive in nature. Micro factors are internal to individual psychology and include psychological vulnerabilities, adverse life events, mental health problems, and cognitive processing issues. Macro factors are the existing pre-conditions that exert a strain at the societal level, resulting in real or perceived grievances (Kleinmann, 2012). The structural pre-conditions such as poverty, socioeconomic differences,

oppression, etc., produce grievances that furnish an environment conducive to radicalization. Meso factors are social forces and processes that consolidate the wider radical milieu to attract individuals to terrorist groups and their ideologies (Kleinmann, 2012; Vergani *et al.*, 2018; Fernandez, Gonzalez-Pardo and Alani, 2019). This includes group-related factors, real or perceived incentives, and socialization processes. These factors are explained in the subsequent sections.

2.4 Results

2.4.1 Distribution of Articles According to the Databases

The initial search yielded 6,394 results (publications) which were distributed as follows:

- Web of Science: n = 1,811 (28.32%)
- EconLit: n = 58 (0.90%)
- ScienceDirect: n = 1,398 (21.86%)
- Sage Journals: n = 2,624 (41.03%)
- PsycINFO: n = 406 (6.34%)
- PubMed: n = 97 (1.51%)

After scrutiny, 6,224 (97.65%) articles did not meet the inclusion criteria and were therefore not included in the review. After removing the duplicates, 148 (2.31%) articles were left, which were then reviewed and analyzed.

2.4.2 Dependent and Independent Variables

Within the reviewed articles, 47.97% (n = 71) focuses on cognitive radicalization while 52.03% (n = 77) studies behavioural radicalization. Conversely, independent variables demonstrate greater variation in their distribution since most studies exhibit variables belonging to more than one category. The exact distribution is given in Table 2.1.

Table 2.1. Distribution of independent variables

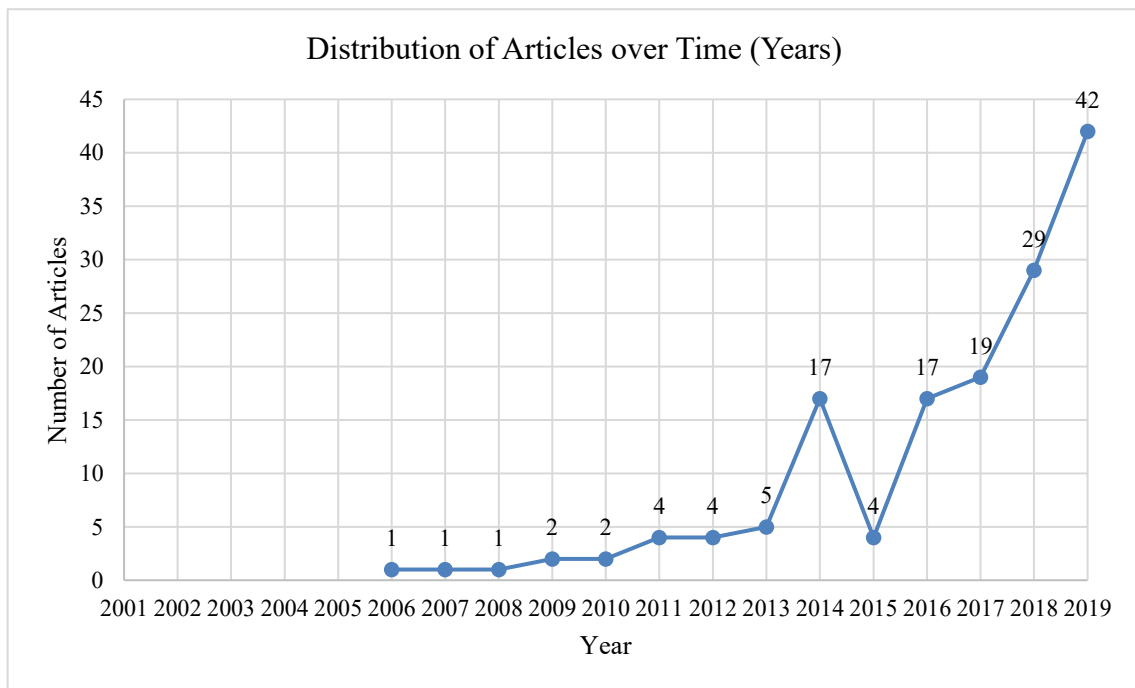
Nature of Combination	Micro Only	Macro Only	Meso Only	Micro and Macro	Micro and Meso	Macro and Meso	Micro, Macro, and Meso
n	19 (12.84%)	22 (14.86%)	14 (9.46%)	13 (8.78%)	26 (17.57%)	23 (15.54%)	31 (20.95%)

(N = 148)

2.4.3 Distribution of Publications Over Time

The term 'radical' is derived from the Latin word 'radix', which refers to the root. The discourse on the root causes of political violence dates back to the 1970s. The 9/11 attacks however made it exceedingly difficult to discuss the root causes of political violence. Yet, the magnitude of the attacks and the ensuing future threats inspired an interdisciplinary interest in understanding the factors behind this apparently new form of terrorism. Thus, the security experts, academics, practitioners, and government officials started using the term radicalization whenever it was needed to refer to the factors that precede political violence (Neumann, Stoil and Esfandiary, 2008). The Madrid and London bombings, which signified the emergence of home-grown terrorism, furthered the interdisciplinary interest in understanding and modeling the factors that inspire political violence. The term radicalization thus gained prominence. This is evident from the timeline of the reviewed articles (Figure 2.1), where the trend starts pacing after 2005.

Figure 2.1. Distribution of publications over time



2.4.4 Focus of the Studies

The reviewed articles cover a diverse range of subjects. Individuals from the general population are predominantly focused. Other subjects of significant focus are terrorist groups, violence perpetrators, and students. It is pertinent to mention that some of these categories may not be mutually exclusive, and the possibility of overlap cannot be completely ruled out. The exact distribution is given in Table 2.2.

Table 2.2. Subjects studied

General Population (n = 40, 27.03%)	Students (n = 30, 20.27%)	Terrorists/Attackers (n = 21, 14.19%)	Terrorist / Militant Group Members (n = 15, 10.14%)
Former Radicals/Jihadists (n = 14, 9.46%)	Terrorist/Militant Groups (n = 12, 8.11%)	Lone Wolf (n = 09, 6.08%)	Families/Friends of Radicals/Terrorists (n = 06, 4.05%)
Radicals (n = 05, 3.38%)	Internet/Twitter Users (n = 05, 3.38%)	Terrorist/Violent Incidents (n = 03, 2.03%)	Patients (n = 03, 2.03%)
Prison Inmates (n = 02, 1.35%)	Prison Officials (n = 01, 0.68%)	Imams (n = 01, 0.68%)	Terrorism Experts (n = 01, 0.68%)

(N = 148)

2.5 Methodology

Quantitative methodology dominates the reviewed studies (n = 81, 54.73%). Other methodologies include qualitative (n = 60, 40.54%), social network analysis (n = 4, 2.7%), mix methods (n = 03, 2.03%), link analysis (n = 01, (0.68%) and machine learning (n = 01, (0.68%).

2.5.1 Analytical Techniques

The analytical techniques employed by the reviewed studies are classified into 49 different categories. The techniques with relatively higher frequencies are reported in Table 2.3, while the complete list is given in Appendix 2.15.1.

Table 2.3. Analytical techniques

Description: (n = 47, 31.76%)	Regression: (n = 44, 29.73%)	Correlation: (n = 31, 20.95%)
Descriptive Statistics: (n = 29, 19.59%)	Structural Equation Model: (n = 12, 8.11%)	Factor Analysis: (n = 11, 7.43%)

(N = 148)

2.5.1 Data Sources

Data collected via surveys and interviews is mainly used in the reviewed studies. Other predominantly used sources include existing datasets, published literature, media reports, and lab experiments, as shown in Table 2.4.

Table 2.4. Data sources

Survey: (n = 42, 28.38%)	Interview: (n = 39, 26.35%)	Existing Datasets: (n = 29, 19.59%)	Published Literature: (n = 15, 10.14%)
Media Reports: (n = 11, 7.43%)	Experiment: (n = 10, 6.76%)	Open Sources: (n = 9, 6.08%)	Court Sources: (n = 6, 4.05%)
Government Sources: (n = 5, 3.38%)	Investigation Reports: (n = 5, 3.38%)	Patient Assessment: (n = 3, 2.03%)	Confession/Conversation: (n = 2, 1.35%)
Tweets: (n = 2, 1.35%)	Autobiography: (n = 1, 0.68%)	Terrorists' Writings: (n = 1, 0.68%)	

(N = 148)

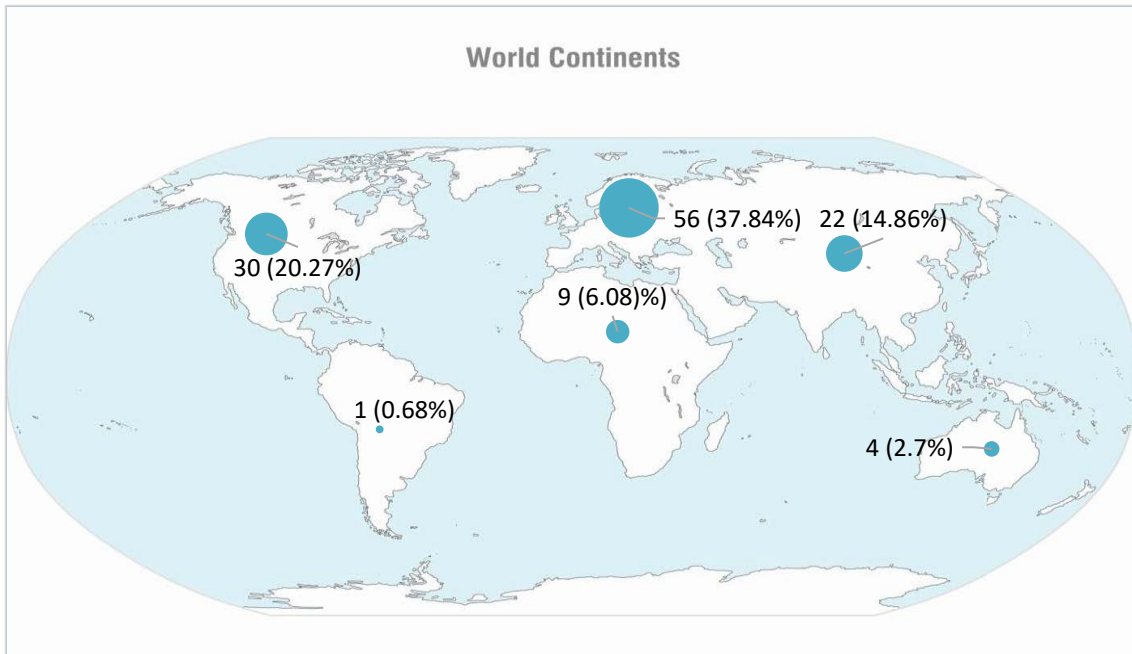
2.5.2 Sample Size

The reviewed studies vary greatly in terms of sample size. Among the articles where it is mentioned, the minimum sample size is 01, while the maximum is 45,923.

2.6 Geographic Focus

The largest number of the reviewed articles focuses on Europe, followed by North America and Asia. Further, 13.51 % (n = 20) articles focus on multiple regions while 4.05% (n = 6) do not mention any region. The rest of the regions are marginally focused, as shown in Figure 2.2 (next page).

Figure 2.2. Geographic focus



Background Image Source: <https://www.vecteezy.com/map-vector/5938-world-continent-map-vector>

2.7 Ideologies

Some studies mention various ideologies central to the radicalization process. Among those, Salafism appears as the dominant ideology, particularly in the case of jihadist radicalization (Table 2.5).

Table 2.5. Ideologies

Salafism: (n = 29, 19.59%)	Right Wing: (n = 5, 3.38%)	White Supremacism: (n = 3, 2.03%)	Wahhabism: (n = 2, 1.35%)
Jihadist Ideology: (n = 2, 1.35%)	Takfir: (n = 1, 0.68%)	Black Power: (n = 1, 0.68%)	Zionism: (n = 1, 0.68%)

(N = 148)

2.8 Definitions of Radicalization Used

Some studies (n = 28, 18.92%) include a definition of radicalization, which can be classified into the following three main streams.

- First stream: Radicalization is a process where individuals resort to violence to achieve social, political, religious, and economic goals or to effect the desired changes within the society.
- Second stream: Radicalization is a process whereby people internalize extremist thoughts, beliefs, ideologies, or (endorse) worldviews that justifies the use of violence.
- Third stream: Radicalization is one's willingness to engage in acts of political violence.

2.9 Radicalization Measures

The reviewed articles assess radicalization in several ways that can be grouped into four broader and (often) non-exclusive categories. The most frequently used procedure is to gauge the respondents' support for political violence, as shown in Table 2.6.

Table 2.6. Radicalization measures

Support for Political Violence: (n = 65, 43.92%)	Use of Violence: (n = 52, 35.14%)	Terrorist Group Membership: (n = 23, 15.54%)	Scales/Constructs: (n = 08, 5.41%)
--	-----------------------------------	--	------------------------------------

(N = 148)

2.10 Micro Factors

Micro factors from the reviewed studies are classified into mental health issues, cognitive processing/mechanisms, personal traumas, and psychological needs/vulnerabilities. The factors under these sub-categories, which appeared most frequently within the reviewed studies, are shown in Table 2.7.

Table 2.7. Micro factors

Category	Factors
Mental Health Issues	Aggression Anger Anxiety Depression Mental Strain Anomia

Table 2.7 Continued

Cognitive Processing/Mechanisms	Lack of Cognitive Complexity/Sophistication Cognitive Closure Cognitive Bleakness Cognitive Opening Structural Change in Thinking Rigid Thinking Schemas Cognitive Dissonance
Personal Traumas/Troubled Past	Adverse Life Events Insecure Life Attachment Failure to Develop Intimate Sexual Bonding Prison History Troubled Social Relations Violence Exposure
Psychological Needs/Vulnerabilities	Uncertainty Identity Needs The Need to Belong Isolation Self-Esteem Issues Significance Loss Significance Quest

2.10.1 Mental Health Issues

Key mental health issues under this category include aggression and anger. Aggressive individuals harbor violent cognitions in response to psychological, structural, and social stimuli (Lindekilde, Bertelsen and Stohl, 2016; Shortland *et al.*, 2017; Neumann, Arendt and

Baugut, 2018). The emotion of anger is usually instigated by injustice, humiliation, or social rejection. These gestations can catalyze one's desire for revenge through the use of violence (Penagos-Corzo *et al.*, 2019).

The perception of social rejection may be shaped by personality factors such as avoidance and anxiety. Highly anxious individuals are likely to endorse extreme actions as compensatory reactions (Ferenczi *et al.*, 2016). The failure of social integration may also cause a psychotic crisis in the shape of depression, instilling a pessimistic worldview (Bhui, Everitt and Jones, 2014; Kmietowicz, 2014). Depression exerts considerable strain on individuals who may consequently be trapped in a vicious cycle of isolation and negative emotions. In the absence of coping ability, the acute strains are likely to play a pivotal role in the adoption of violent cognitions (Pauwels and Schils, 2016; Capellan and Anisin, 2018). One's coping ability can be hindered by anomia – a syndrome that encompasses feelings of meaninglessness, powerlessness, isolation, normlessness, and self-estrangement (Mahfud and Adam-Troian, 2019). These feelings can trigger violence to restore meaning and significance (Adam-Troian *et al.*, 2019; Troian *et al.*, 2019).

2.10.2 Cognitive Processing/Mechanisms

Under this category, the lack of cognitive complexity is often regarded as the key driver of radicalization (Pfundmair *et al.*, 2019). Individuals who lack cognitive sophistication exhibit inflexible ideation. They over-simplify complex issues that limit choice to rigid dichotomous categories such as 'us vs. them' or 'right and wrong'. The consequent cognitive closure and absolutist views increase the probability of violent actions.

Cognitive bleakness is another pre-condition mentioned within the reviewed studies. It refers to a state when emotional vulnerability and disenfranchisement generate disillusionment and dissatisfaction. This crisis creates a cognitive opening that triggers a search for alternative thinking, which provides a greater sense of meaning. This may drive individuals towards a new ideology and a moral authority that they consider trustworthy and absolute. A charismatic leader may exploit this vulnerability, which can result in recruitment and violence (Brunt, Murphy and Ann, 2017).

The search for alternative thinking may result in cognitive dissonance – a situation where one struggles with several contradictory beliefs and experiences stress while striving for logical consistency. To ward off dissonance, one can either change his cognitions about his existing actions or change the existing actions. A desire for change in actions can translate into extreme acts (Nilsson, 2019).

2.10.3 Personal Traumas/Troubled Past

Certain traumatic events can also catalyze extreme cognitions and actions. Adverse life events result in isolation, ontological insecurity, and a loss of certitude in the existing beliefs. These inspire the quest for affiliation, belonging, and alternative world views. The fulfillment of these needs through friendship and ties provides exposure to extremist ideologies and world views (Aly and Striegner, 2012).

The quest for ontological may also be instigated by experiencing an unsafe sociocultural context – conceptualized as insecure life attachment. Insecure life attachment hinders one from leading a good and meaningful life which invokes the quest for comprehensive changes within society. Such a quest can pave the way for extremist attitudes and behavior (Ozer and Bertelsen, 2019).

Another factor, that can serve as a driver of radicalization, is the lack of sexually intimate pair-bonding (Meloy, 2018). This need is alternatively fulfilled through the sexualization of violence by engaging with objects deemed substitutes for sexual pairing. These can assume several shapes, such as videos of weapons/violence, violent shooter games, or violent pornographic content. At this point, the psychological distinction between individuals and objects is eclipsed, and the acts of aggression immersion are viewed as equivalents of sexual arousal, intimacy, and orgasm (Meloy and Yakeley, 2014; Meloy and Gill, 2016).

Prison history is another salient life event mentioned in the reviewed studies. Prisons are highly perturbing settings where existential concerns surround inmates. This catalyzes the quest for seeking identity and protection that can result in radical ideological framing and recruitment (Neumann, 2010).

Individuals can also be traumatized by experiencing troubles in their social relations. Such experiences weaken the self-concept of an individual who then aims to find an external enemy to shift the blame. This makes them receptive to radical world views for finding purpose, meaning, and significance (Rink and Sharma, 2018).

The last factor under personal traumas is one's exposure to violence. Violence exposure creates various mental health problems and affects the mechanism of emotional regulation (Guerra, Rowell Huesmann and Spindler, 2003). In such a situation, the normative structures, which rest upon attributes like compromise and the rule of law, subside. This results in rigid and dichotomous thinking schemas that increase the appeal of polarizing and extremist ideologies (Milani, 2017).

2.10.4 Psychological Needs/Vulnerabilities

Micro factors also include several psychological needs and vulnerabilities. One key vulnerability is personal uncertainty which is the sense of doubt in one's views about

himself, the world, or both. Uncertain people tend to defend their worldview vehemently as this furnishes a purpose to their life. They may also strongly feel the need for identity and belonging. Closed groups with explicit directions tend to cater well to the needs of uncertain individuals. Such groups are viewed as a single unit with shared destiny and are thus deemed effective for uncertainty reduction. Groups with extremist ideologies are more likely to possess these attributes and therefore provide refuge to vulnerable individuals (Doosje, Loseman and Bos, 2013; Lindekilde, Bertelsen and Stohl, 2016; Macdougall *et al.*, 2018; Oppetit *et al.*, 2019).

Individuals can also be rendered vulnerable by the experience of social isolation, which catalyzes a quest for ontological security. Extremist groups tend to lure isolated individuals by providing an alternative community. After joining the new group, individuals embrace their ideology and withdraw from their previous/mainstream group (Aly and Striegheer, 2012; Hug, 2013; Leuzinger-Bohleber, 2016; Adam-Troian *et al.*, 2019; Mitts, 2019).

Groups may also provide a sense of self-esteem and significance. Certain experiences, such as social rejection, humiliation, and exclusion, undermine one's self-esteem and sense of significance. This invokes a quest for regaining significance and self-esteem. Through participation, extremist groups provide feelings of self-worth, inclusion, and significance which increases one's commitment to the group and its ideology (Ahmad, 2016).

Overall, micro factors appear in 89 articles and focuss primarily on the general population. Region-wise, micro factors predominantly focus on Europe (n = 54, 36.49%), North America (n = 26, 18.24%) and Asia (n = 24, 16.22%). The regions of marginal focus are Africa (n = 06, 4.05%), Oceania (n = 03, 2.03%) and South America (n = 01, 0.68%).

2.11 Macro Factors

Macro factors from the reviewed studies are grouped into structural factors and mass-level grievances. The factors that appear most frequently under these sub-categories are given in Table 2.8.

Table 2.8. Macro factors

Category	Factors
Structural Factors	Poverty Unemployment Perceived Threats Perceived Oppression

Table 2.8 Continued

Structural Factors	Western Influence/Occupation External Support
Grievances	Deprivation Discrimination Injustice Marginalization Exclusion Socioeconomic Inequalities

2.11.1 Structural Factors

One key argument under structural factors considers poverty as the driving force of radicalization. Poverty can cause several mental health problems such as depression, anger, and frustration. It could also boost attraction for the material and emotional incentives offered by terrorist groups (Vergani *et al.*, 2018). These conditions increase susceptibility to extremist cognitions and terrorist group recruitment. The recruitment decision can also be favored by unemployment which furnishes biographical availability and lowers the opportunity cost for terrorist group participation (Kavanagh, 2011; Vergani *et al.*, 2018).

The radicalization process can also be driven by real, symbolic, or safety threats. Threats separate individuals from the larger society. This disengagement can turn them towards extremist groups since they cater to the needs of refuge, certainty, significance, and safety (Tahir, Rønningsdalen Kunst and Lackland Sam, 2019).

Oppression is another structural pre-condition that can favor the radicalization process. Oppression catalyzes violent disinhibition – a negative emotion associated with the desire to end one’s own life or that of others (Lobato *et al.*, 2018).

Radicalization can also be driven by external support. It constitutes the political, military, and financial support or an outside refuge/sanctuary provided by external states, groups, diaspora, or ethnic kin. This allows the aggrieved individuals/groups to launch attacks with impunity from the repressive capacity of their own state (Jenne, Saideman and Lowe, 2007; Lindemann and Wimmer, 2018).

2.11.2 Grievances

Whether individual or group-related, grievances can serve as an important impetus for radicalization. One key grievance is collective relative deprivation which refers to the perception that one's in-group has been unfairly mistreated and disadvantaged. The deprived individuals/groups feel detached from the mainstream society, which reinforces their in-group identity. This inspires the desire for retribution which results in resentment and violence against the outgroups (van Bergen *et al.*, 2015; Obaidi *et al.*, 2019).

Grievances can also result from discrimination which invokes feelings of marginalization and injustice. The discriminated individuals consider themselves ostracized and threatened. Consequently, they experience moral outrage, which catalyzes anger and violent behavioral intentions (Brunt, Murphy and Ann, 2017; Frounfelker *et al.*, 2019).

Another grievance cited in the reviewed studies is the experience of exclusion. Exclusion results in significance loss which awakens a quest for significance via inclusion. An inclusion by radical groups results in greater adherence to its ideology as a compensatory reaction (Bäck *et al.*, 2018).

Political and economic exclusion also leads to socioeconomic differentials, which reinforce the in-group identity and a sense of alienation from mainstream society. If the grievances remain unaddressed, the excluded individuals/groups are likely to respond with extreme actions (Hansen, Nemeth and Mauslein, 2018).

In the 89 articles that mention macro factors, the general population is predominantly focused. Region-wise, macro factors primarily focus on Europe (n = 41, 27.7%), North America (n = 23, 15.54%), and Asia (n = 22, 14.86%). Other regions, such as Africa (n = 07, 4.73%) and Oceania (n = 01, 0.68%) are marginally focused.

2.12 Meso Factors

Meso factors from the reviewed studies are organized into group-related factors, socialization process, and real/perceived incentives. The factors that are most frequently cited under these sub-categories are shown in Table 2.9.

Table 2.9. Meso factors

Category	Factors
Group Related Factors	Religiosity Group Belongingness

Table 2.9 Continued

Group Related Factors	Group/Collective Identity Group Ideology Salafism
Real or Perceived Incentives	Emotional Incentives Financial Gains
Socialization Processes	Peer Influence Social Learning Networks Internet Propaganda Charismatic Leaders

2.12.1 Group Related Factors

Under this category, religiosity receives extensive attention and scrutiny in the relevant literature. Religiosity is usually discussed at the individual and collective/social levels. Individual religiosity refers to personal religious practices such as prayer frequency and committing to religious ideals. The collective aspect involves the social dimension of religiosity that manifests in identifying and engaging with the religious community at large. Personal religious adherence is often found to reduce support for extremism (Beller and Kröger, 2018). Conversely, the collective aspect of religion is arguably associated with a higher propensity towards radicalization. It promotes commitment among the adherents, which offers greater leverage to the religious leaders for sanctioning political protests and violent acts (Adamczyk and LaFree, 2019).

Collective action may also stem from the desire to become or remain part of a social group. A high need to belong awakens the quest for acceptance which makes one more agreeable, compliant, and conforming. Since conformity diminishes the chances of rejection/exclusion, members tend to abide by the group-serving behavior even when it entails violence against the out-groups (Bäck, Bäck and Knapton, 2015).

Groups also bestow identity, which allows the members to cheer collective successes and share grievances (Botha, 2014). Grievances increase receptivity to ideological frames that externalize the blames and legitimize retaliatory actions (Meloy and Genzman, 2016; Capellan and Anisin, 2018; Erlandsson and Meloy, 2018).

Within the reviewed studies, Salafism frequently appears as an influential ideology behind radicalization. Salafism aims to purify Islam from cultural influences and emulate the teachings of the Islamic Prophet Muhammad. It emphasizes separation from the non-Muslim society, renunciation of most interpretations of Islam, reliance on the primary sources of religion (i.e., Quran and Hadith), and a greater role for Jihad. By subsidizing the ethnic, cultural, and tribal affiliations, Salafism reinforces the Muslim identity, belongingness, and extreme actions on behalf of the in-group (Amble and Meleagrou-Hitchens, 2014).

2.12.2 Real or Perceived Incentives

Certain incentives can render terrorist group membership an attractive prospect (Sieckelinck *et al.*, 2019). For instance, emotional satisfaction, recognition, and social prestige associated with group membership may prove pivotal in the recruitment decision (Asta Maskaliūnaitė, 2015).

Financial gains can also increase the prospects of terrorist group membership, particularly for individuals facing economic challenges (Amble and Meleagrou-Hitchens, 2014).

2.12.3 Socialization Processes

The reviewed studies mention peer influence as an important precursor to radicalization. Peers transmit group biases/grievances and help develop group thinking. The tightly knitted in-group bonding and weak outgroup association can lead to extreme actions on behalf of the in-group (Pauwels and Heylen, 2017; LaFree *et al.*, 2018; Ferguson and McAuley, 2020).

Peers can also establish contact with radical social networks. Such networks serve as avenues of socialization that instill specific cognitive frames through the internalization of ideologies and grievances (Ahmad, 2016a; Jasko, LaFree and Kruglanski, 2017; Böckler *et al.*, 2018).

Social networks are no more confined entirely to the offline arenas. Virtual spaces are increasingly complementing the socialization processes into extremism. The lack of a physical connection allows the formation of bonds on other stronger grounds, such as shared ideologies, worldviews, and objectives (Meloy and Yakeley, 2014; Bensaid, 2017; Costello *et al.*, 2018; Holt *et al.*, 2019).

Propaganda is another influential factor in the radicalization process. Extremist groups tailor their propaganda to address the ethnic, national, or religious grievances/sufferings and sentiments of the target audiences (Rieger, Frischlich and Bente, 2019).

The process of socialization into radical milieus can also be oiled by charismatic leaders. These leaders propagate group sufferings that help build collective identities. They serve as a source of ideology and authority and can sanction actions against the out-groups (Milla, Faturochman and Ancok, 2013).

In the 94 articles that mention meso factors, the general population is predominantly focused. Region-wise, Europe (n = 42, 28.38%), Asia (n = 24, 16.22%) and North America (n = 21, 14.19%) are primarily focused. The regions of marginal focus include Africa (n = 08, 5.41%), Oceania (n = 03, 2.03%) and South America (n = 01, 0.68%).

2.13 Discussion

This study undertakes a systematic review of the scholarly literature on radicalization. The reviewed studies tend to focus primarily on the general population in Europe, North America, and Asia, employ largely quantitative methodologies, use surveys and interviews as the main data sources, and manifest Salafism as an influential ideology.

The reviewed studies demonstrate a nearly identical focus on micro, macro, and meso factors. This finding deviates from Schmid (2013), who posited that the scholarship on radicalization predominantly focuses on the psychological factors and de-emphasize the macro and meso root causes. The current finding could be attributed to the growing number of studies where the relatively recent ones encompass diverse data sources and methodologies. This may have been inspired by the emphasis on studying the wider circumstances along with the psychological factors by authors such as Sedgwick (2010) and Schmid (2013).

The review finds significant variations in the approaches used for measuring radicalization. Expressed support for political violence and participating in events of actual violence are the most frequently used approaches for measuring cognitive and behavioral radicalization, respectively. Although the quantitative measures dominate the mix of the analytical techniques used for inferential purposes, the review finds that qualitative descriptive studies still constitute a significant share (n = 47, 31.76%).

Finally, the review finds several points of contestation that tend to persist across the studies. Specifically, there seems to be a lack of agreement on the definition of radicalization, the factors that cause it, and the models/frameworks that may explain it. Conversely, scholars tend to agree that radicalization as a phenomenon is too complex for a single factor to

explain. Instead, a multi-factorial analysis encompassing interaction between the factors is pre-dominantly stressed for understanding radicalization.

2.14 Conclusion

This review provides a map of the research undertaken on radicalization between 2001 and 2019. In a nutshell, radicalization is a process that brews within a certain context through the interplay of personality, socio-political and community-related factors. Based on insights from the reviewed studies, understanding the dynamics of home-grown radicalization currently appears to be one of the main challenges in the field. This is complemented by the growing concerns regarding virtual spaces, which are now increasingly used by extremist groups to propagate their ideologies to global audiences.

The radicalization process is usually inspired by a specific setting since one factor may not exert a similar influence under different contexts. This study, therefore, suggests that future research should focus on regional contextual factors and their interactions with micro, macro, and meso factors. Of particular importance are certain structural aspects such as regional inequalities and differences in economic development that are currently under-researched.

2.15 Appendix

2.15.1 Methods, Data, and Disciplines

Table 2.10: Methods, data, and disciplines

S. No	Method	Frequency	Data Utilized (Type, Source & Frequencies)	Disciplines & Frequencies (Affiliation of the Authors)	
1	Description	47	<p>Primary Sources</p> <ul style="list-style-type: none"> • Interview: 21 • Investigation Reports / Trial Proceedings: 05 • Survey / Polls: 04 • Observation/Assessment: 02 • Testimonies / Letters: 02 • Confession / Conversation: 02 • Case Report: 01 • Telegram Group Chat: 01 <p>Secondary Sources</p> <ul style="list-style-type: none"> • Published Studies / Books / Literature / Material: 17 • Media Reports: 09 • Government Reports / Websites: 04 • Open Sources: 04 • Existing Datasets: 02 • Archival Sources: 01 	<ul style="list-style-type: none"> • Security / Defense / War Studies: 10 • Political Science: 07 • Psychology: 06 • Not Mentioned / Non-Academic: 06 • International Studies: 04 • Conflict and Violence: 04 • Psychiatry: 03 • Sociology: 02 • Legal Studies: 02 • Criminal Justice: 02 • Medicine: 01 • Social Research: 01 • Social Science: 01 • Middle East and Mediterranean Studies: 01 • International Security: 01 	<ul style="list-style-type: none"> • Behavioral Intervention and Threat Assessment: 01 • Criminology: 01 • Geography: 01 • Public Administration: 01 • Communication: 01 • Rehabilitation Sciences: 01 • Medical Research: 01 • Psychoanalysis: 01 • General Education: 01 • Global Terrorism Research: 01

			<ul style="list-style-type: none"> • Facebook Posts: 01 • Audio / Video: 01 		
2	Regression	44	Primary Sources	<ul style="list-style-type: none"> • Psychology: 12 • Psychiatry: 06 • Sociology: 05 • Terrorism / Security / Intelligence Studies: 04 • Medicine: 03 • Geography: 02 • Communication Studies / Media Research: 01 • Social Sciences: 01 • Public Policy: 02 • Military Health Research: 02 	<ul style="list-style-type: none"> • Politics and I.R./Global Affairs: 02 • Public Health: 01 • Not Mentioned / Non-Academic: 02 • Humanities: 01 • International and Public Affairs: 01 • Economics: 01 • Neuroscience: 01 • Religious Studies: 01 • Anthropology: 01 • Israel and Diaspora Studies: 01 • Statistics: 01
			<ul style="list-style-type: none"> • Survey: 21 • Experiment: 05 • Interview: 03 • Trail Proceeding: 01 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 18 • Media Reports: 01 Autobiography: 01 		
3	Correlation	31	Primary Sources	<ul style="list-style-type: none"> • Psychology: 12 • Criminology / Crime Science: 06 • Terrorism/Security Studies: 03 • Political Science: 02 • Preventive Medicine: 01 	<ul style="list-style-type: none"> • Social and Behavioral Sciences: 01 • Military Health Research: 01 • Informatics Engineering: 01 • Business: 01
			<ul style="list-style-type: none"> • Survey: 22 • Experiment: 03 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 07 		

				<ul style="list-style-type: none"> • Computer Science: 01 • Marketing: 01 • Sociology: 01 	<ul style="list-style-type: none"> • Geography: 01 Peace and Development: 01
4	Descriptive Statistics	29	Primary Sources	<ul style="list-style-type: none"> • Psychology: 18 • Criminology/Criminal Justice: 07 • Political Science: 05 • Sociology: 04 • Public Policy: 03 • Behavioral Science: 03 • Geography: 02 	<ul style="list-style-type: none"> • International Studies/Affairs: 03 • Security Studies: 02 • Medicine: 01 • Statistics: 01 • Business: 01 • Social Sciences: 01 • Education: 01 Not Mentioned / Non-Academic: 01
			<ul style="list-style-type: none"> • Survey: 15 • Experiment: 02 • Interview: 01 • Observation: 01 • Writings: 01 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 09 • Open Source: 02 		
5	Structural Equation Modeling	12	Primary Sources	<ul style="list-style-type: none"> • Psychology: 07 • Political Science: 03 • Behavioral/Clinical Neuroscience: 03 • Social Sciences: 02 • Sociology: 01 	<ul style="list-style-type: none"> • Psychiatry: 01 • Criminology / Criminal Justice: 01 • Not Mentioned • Non-Academic: 01
			<ul style="list-style-type: none"> • Survey: 09 • Interview: 02 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 01 		
6	Factor Analysis	11	Primary Sources	<ul style="list-style-type: none"> • Psychology: 08 • Sociology: 03 • Behavioral Science: 03 • Social Science: 03 	<ul style="list-style-type: none"> • Criminology/Criminal Justice: 01 • Political Science: 01 • Religious Studies: 01 • Education: 01
			<ul style="list-style-type: none"> • Survey: 10 • Interview: 01 		
7		9	Primary Sources	<ul style="list-style-type: none"> • Psychology: 06 	

	Mediation Analysis		<ul style="list-style-type: none"> • Survey: 09 • Experiment: 03 	<ul style="list-style-type: none"> • Psychiatry: 02 • Sociology: 01 • Government and Public Affairs: 01 • Religious Studies: 01 • International Studies: 01 	<ul style="list-style-type: none"> • Military Health Research: 01 • Social Sciences and Liberal Arts: 01 • Business: 01 • Anthropology: 1 • Public health and Health Sciences: 01
8	t-Test	8	Primary Sources	<ul style="list-style-type: none"> • Psychology: 04 • Psychiatry: 03 • Anthropology: 02 • Terrorism / Security Studies: 01 • Advanced International Studies: 01 	<ul style="list-style-type: none"> • Not Mentioned / Non Academic: 01 • Epidemiology and Biostatistics: 01 • Criminology & Justice Studies: 01 • Public health & Health Sciences: 01
			<ul style="list-style-type: none"> • Survey: 04 • Experiment: 01 • Writing: 01 • Police Investigation: 01 • Interview: 01 • Therapy Session: 01 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 02 		
9	Chi-Square	7	Primary Sources	<ul style="list-style-type: none"> • Psychology: 04 • Psychiatry: 04 • Anthropology: 02 • Criminology & Criminal Justice: 01 	<ul style="list-style-type: none"> • Medicine: 01 Public health & Health Sciences: 01 • Epidemiology & Biostatistics: 01
			<ul style="list-style-type: none"> • Survey: 02 		
			<ul style="list-style-type: none"> • Police Investigation: 02 • Observation: 01 • Experiment: 01 • Interview: 01 • Therapy Session: 01 		

			Secondary Sources		
			<ul style="list-style-type: none"> Existing Datasets: 02 Open Source: 01 		
10	Analysis of variance (ANOVA)	7	Primary Sources	<ul style="list-style-type: none"> Psychology: 03 Anthropology: 02 Psychiatry: 02 Media / Communication: 01 Humanities: 01 Not Mentioned / Non Academic: 01 	<ul style="list-style-type: none"> Government & Public Affairs : 01 Epidemiology & Biostatistics: 01 Business: 01 Public Health & Health Sciences: 01 International Studies: 01
			<ul style="list-style-type: none"> Survey: 06 Experiment: 03 		
11	Percentages	6	Primary Sources	<ul style="list-style-type: none"> Criminology / Criminal Justice: 03 Peace & Conflict Studies: 01 	<ul style="list-style-type: none"> Not Mentioned / Non Academic: 01 Arts & Education: 01 Politics: 01
			<ul style="list-style-type: none"> Interview: 03 Survey: 01 Court Documents: 01 		
			Secondary Sources		
			<ul style="list-style-type: none"> Existing Datasets: 02 Open Sources: 02 		
12	Frequency	6	Primary Sources	<ul style="list-style-type: none"> Political Science: 01 Psychiatry: 01 Computer Science: 01 Psychology: 01 Economics: 01 	<ul style="list-style-type: none"> Criminology & Criminal Justice: 01 Intelligence Studies: 01 Medicine: 01
			<ul style="list-style-type: none"> Interview: 01 Observation: 01 Police Investigation: 01 		
			Secondary Sources		
			<ul style="list-style-type: none"> Existing Datasets: 02 Open Sources: 02 		

			<ul style="list-style-type: none"> • Tweets: 01 		
13	Qualitative Analysis	5	Primary Sources	<ul style="list-style-type: none"> • Criminology / Criminal Law / Criminal Policy: 02 • Social Law: 01 • Medical Psychology: 01 • Sociology: 01 • Social Sciences: 01 	<ul style="list-style-type: none"> • Societal Resilience: 01 • Law and Justice Studies: 01 • Political Studies: 01 • Culture and Society: 01
			<ul style="list-style-type: none"> • Interview: 03 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 01 • Open Source: 01 		
14	Interaction Effect	4	Primary Sources	<ul style="list-style-type: none"> • Criminology / Justice Studies: 02 • Terrorism & Security Studies: 01 	<ul style="list-style-type: none"> • Psychology: 01 • Public Policy: 01 • Statistics: 01 • Sociology: 01
			<ul style="list-style-type: none"> • Survey: 02 • Experiment: 01 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 02 		
15	Social Network Analysis	4	Secondary Sources	<ul style="list-style-type: none"> • Information Technology: 01 • Defense Analysis: 01 • Computer Science: 01 	<ul style="list-style-type: none"> • National Security Affairs: 01 • Informatics Engineering: 01
			<ul style="list-style-type: none"> • Existing Datasets: 03 • Open Source: 01 		
16	Multivariate Analysis	4	Primary Sources	<ul style="list-style-type: none"> • Psychiatry: 03 • Psychology: 02 	<ul style="list-style-type: none"> • Military Health Research: 01 • Preventive Medicine: 01
			<ul style="list-style-type: none"> • Survey: 02 • Interview: 01 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 01 		
17		4	Primary Sources	<ul style="list-style-type: none"> • Psychology: 03 	

	Thematic Analysis		<ul style="list-style-type: none"> • Interview: 04 • Experiment: 01 	<ul style="list-style-type: none"> • Communication Studies: 02 • Media Research: 01 • Clinical Sciences: 01 	<ul style="list-style-type: none"> • Political and Social Inquiry: 01 • Politics & International Relations: 01
18	Moderation Analysis	3	Primary Sources	<ul style="list-style-type: none"> • Psychology: 02 	<ul style="list-style-type: none"> • Anthropology: 01
			<ul style="list-style-type: none"> • Survey: 03 	<ul style="list-style-type: none"> • Psychiatry: 02 • Epidemiology & Biostatistics: 01 	<ul style="list-style-type: none"> • Anthropology: 01 • Public Health & Health Sciences: 01
19	Univariate Analysis	3	Primary Sources	<ul style="list-style-type: none"> • Psychology: 03 	<ul style="list-style-type: none"> • Education: 01
			<ul style="list-style-type: none"> • Survey: 02 • Interview: 01 	<ul style="list-style-type: none"> • Psychiatry: 02 	<ul style="list-style-type: none"> • Media Studies: 01 • Behavioral & Social Sciences: 01
20	Mix Methods	3	Primary Sources	<ul style="list-style-type: none"> • Psychology: 03 	<ul style="list-style-type: none"> • Epidemiology & Biostatistics: 01
			<ul style="list-style-type: none"> • Survey: 01 	<ul style="list-style-type: none"> • Psychiatry: 02 	<ul style="list-style-type: none"> • Anthropology: 01
			<ul style="list-style-type: none"> • Interview: 03 		
			Secondary Sources		
			<ul style="list-style-type: none"> • Existing Datasets: 01 		
21	Mediated-Moderation	2	Primary Sources	<ul style="list-style-type: none"> • Sociology: 01 	<ul style="list-style-type: none"> • Religious Studies: 01
			<ul style="list-style-type: none"> • Survey: 02 • Experiment: 01 	<ul style="list-style-type: none"> • Humanities: 01 	
22	Meta-Analysis	2	Primary Sources	<ul style="list-style-type: none"> • Psychology: 02 	<ul style="list-style-type: none"> • Business: 01
			<ul style="list-style-type: none"> • Survey: 02 	<ul style="list-style-type: none"> • Marketing: 01 • Social Sciences & Liberal Arts: 01 	<ul style="list-style-type: none"> • Peace & Development: 01
23		2	Primary Sources		<ul style="list-style-type: none"> • Economics: 01

	Constant Case Comparison		<ul style="list-style-type: none"> • Interview: 02 • Prosecution Files: 01 • Experiment: 01 	<ul style="list-style-type: none"> • Psychology & Threat Management: 01 • Communication Studies & Media Research: 01 	
24	Review / Analysis of the Existing Studies	2	Secondary Sources <ul style="list-style-type: none"> • Published Studies / Literature: 02 	<ul style="list-style-type: none"> • Medicine: 01 • Psychoanalysis: 01 	<ul style="list-style-type: none"> • Psychology: 01 • Religion Research: 01
25	Case Experience / Study	2	Secondary Sources <ul style="list-style-type: none"> • Case File: 01 • Communication: 01 • Trial: 01 	<ul style="list-style-type: none"> • Medicine: 01 • Social Science: 01 • Psychoanalysis: 01 	<ul style="list-style-type: none"> • International Studies: 01 • Policing and Security: 01
26	Bootstrap Analysis	2	Primary Sources <ul style="list-style-type: none"> • Survey: 02 	<ul style="list-style-type: none"> • Criminology: 01 	<ul style="list-style-type: none"> • Psychology: 01
27	Wilcoxon Rank Sum Test	2	Primary Sources <ul style="list-style-type: none"> • Police Investigation: 01 • Interviews: 01 • Therapy Session: 01 Secondary Sources <ul style="list-style-type: none"> • Existing Datasets: 02 	<ul style="list-style-type: none"> • Computer Science: 01 • Psychiatry: 01 	<ul style="list-style-type: none"> • Psychology: 01
28	Content Analysis	2	Primary Sources <ul style="list-style-type: none"> • Interviews: 01 • Trial Proceedings: 01 Secondary Sources <ul style="list-style-type: none"> • Media Reports: 02 • Autobiography: 01 	<ul style="list-style-type: none"> • Terrorism Studies: 01 • Politics & Government: 01 • Social Sciences: 01 	<ul style="list-style-type: none"> • Government & International Relations: 01 • Israel & Diaspora Studies: 01

29	Grounded Theory	2	Primary Sources	• Societal Resilience: 01	• Social Sciences: 01
			• Interviews: 02	• Criminology & Criminal Justice: 01	• Culture & Society: 01
30	Parametric Inferential Tests	1	Primary Sources	• Security & Crime Science: 01	---
			• Experiment: 01		
31	Theoretical Coding	1	Primary Sources	• Psychology & Threat Management: 01	• Economics: 01
			• Interview: 01 • Prosecution Files: 01		
32	Psychoanalysis	1	Primary Sources	• Psychoanalysis: 01	---
			• Psychoanalysis: 01		
33	Ratio	1	Primary Sources	• Computer Science: 01	---
			• Tweets: 01		
34	Multi-Level Analysis	1	Primary Sources	• Psychiatry: 01	• Anthropology: 01
			• Survey: 01	• Epidemiology & Biostatistics: 01	• Psychology: 01
35	Generalized Additive Mixed Models (GAMMs)	1	Primary Sources	• Psychiatry: 01	• Anthropology: 01
			• Survey: 01	• Epidemiology & Biostatistics: 01	• Psychology: 01
36	Maximum Likelihood Estimation	1	Primary Sources	• Psychology: 01	---
			• Survey: 01		
37	Receiver Operating Characteristic (ROC) Curve Analysis	1	Primary Sources	• Psychiatry: 01	• Medicine: 01
			• Observation: 01		
38	Link Analysis	1	Secondary		---

			<ul style="list-style-type: none"> • Open Source: 01 	<ul style="list-style-type: none"> • National Security Affairs : 01 	
39	Machine Learning	1	Secondary	<ul style="list-style-type: none"> • Information Technology: 01 	---
			<ul style="list-style-type: none"> • Existing Datasets: 01 		
40	Text analysis	1	Primary Sources	<ul style="list-style-type: none"> • Sociology: 01 • Public Policy: 01 	<ul style="list-style-type: none"> • Statistics: 01
			<ul style="list-style-type: none"> • Writings: 01 		
41	Cluster Analysis	1	Primary Sources	<ul style="list-style-type: none"> • Preventive Medicine: 01 	<ul style="list-style-type: none"> • Psychiatry: 01
			<ul style="list-style-type: none"> • Survey: 01 		
42	Multivariable Analysis	1	Primary Sources	<ul style="list-style-type: none"> • Psychiatry: 01 	<ul style="list-style-type: none"> • Military Health Research: 01
			<ul style="list-style-type: none"> • Survey: 01 		
43	Principal Component Analysis	1	Primary Sources	<ul style="list-style-type: none"> • Preventive Medicine: 01 	<ul style="list-style-type: none"> • Military Health Research: 01
			<ul style="list-style-type: none"> • Survey: 01 		
44	Multiple Correspondence Analysis	1	Primary Sources	<ul style="list-style-type: none"> • Psychiatry: 01 	<ul style="list-style-type: none"> • Psychology: 01
			<ul style="list-style-type: none"> • Interview: 01 		
45	Structured Focus Comparison	1	Secondary	<ul style="list-style-type: none"> • Intelligence Studies & Information Science: 01 	---
			<ul style="list-style-type: none"> • Existing Studies / Literature: 01 		
46	Document Analysis	1	Secondary	<ul style="list-style-type: none"> • Psychology: 01 	---
			<ul style="list-style-type: none"> • Existing Datasets: 01 		
47	Metrics Count	1	Secondary	<ul style="list-style-type: none"> • Computer Science: 01 	---
			<ul style="list-style-type: none"> • Existing Datasets: 01 		
48	Scatterplot	1	Secondary	<ul style="list-style-type: none"> • International & Public Affairs: 01 	---
			<ul style="list-style-type: none"> • Existing Datasets: 01 		
49		1	Primary Sources	<ul style="list-style-type: none"> • Psychology: 01 	---

	Fisher's Exact Test		• Police Investigation: 01		
--	---------------------	--	----------------------------	--	--

2.15.2 List of the Reviewed Articles

1. Adam-Troian, J., Bonetto, E., Araujo, M., Baidada, O., Celebi, E., Dono Martin, M., Eadeh, F., Godefroidt, A., Halabi, S., Mahfud, Y., Varet, F., & Yurtbakan, T. (2019). Positive associations between anomia and intentions to engage in political violence: Cross-cultural evidence from four countries. *Peace and Conflict: Journal of Peace Psychology*. <https://doi.org/10.1037/pac0000385>
2. Adamczyk, A., & LaFree, G. (2019). Religion and Support for Political Violence among Christians and Muslims in Africa. *Sociological Perspectives*, 62(6), 948–979. <https://doi.org/10.1177/0731121419866813>
3. Ahmad, A. (2016). The Ties That Bind and Blind: Embeddedness and Radicalisation of Youth in One Islamist Organisation in Pakistan. *Journal of Development Studies*, 52(1), 5–21.
4. Ahmed, Z. S., Yousaf, F., & Zeb, K. (2018). Socio-economic and Political Determinants of Terrorism in Pakistan: University Students' Perceptions. *International Studies*, 55(2), 130–145. <https://doi.org/10.1177/0020881718790689>
5. Al-Saggaf, Y. (2016). Understanding Online Radicalisation Using Data Science. *International Journal of Cyber Warfare and Terrorism (IJCWT)*, 6(4), 13–27. <https://doi.org/10.4018/IJCWT.2016100102>
6. Altier, M. B., Leonard Boyle, E., & Horgan, J. G. (2019). Returning to the Fight: An Empirical Analysis of Terrorist Reengagement and Recidivism. *Terrorism and Political Violence*, 1–25. <https://doi.org/10.1080/09546553.2019.1679781>
7. Aly, A., & Striegher, J.-L. (2012). Examining the Role of Religion in Radicalization to Violent Islamist Extremism. *Studies in Conflict & Terrorism*, 35(12), 849–862. <https://doi.org/10.1080/1057610X.2012.720243>
8. Amble, J. C., & Meleagrou-Hitchens, A. (2014). *Jihadist* Radicalization in East Africa: Two Case Studies. *Studies in Conflict & Terrorism*, 37(6), 523–540. <https://doi.org/10.1080/1057610X.2014.893406>
9. Anaz, N., Aslan, Ö., & Özkan, M. (2016). Turkish foreign terrorist fighters and the emergence of a new kind of radicalization. *Turkish Studies*, 17(4), 618–642. <https://doi.org/10.1080/14683849.2016.1243987>

10. Andre, V., & Harris-Hogan, S. (2013). Mohamed Merah: From Petty Criminal to Neojihadist. *Politics, Religion & Ideology, 14*(2), 307–319. <https://doi.org/10.1080/21567689.2013.792655>
11. Bäck, E. A., Bäck, H., Altermark, N., & Knapton, H. (2018). The quest for significance: Attitude adaption to a radical group following social exclusion. *International Journal of Developmental Science, 12*(1–2), 25–36. <https://doi.org/10.3233/DEV-170230>
12. Baele, S. J. (2017). Lone-Actor Terrorists' Emotions and Cognition: An Evaluation Beyond Stereotypes. *Political Psychology, 38*(3), 449–468. <https://doi.org/10.1111/pops.12365>
13. Bail, C. A., Merhout, F., & Ding, P. (2018). Using Internet search data to examine the relationship between anti-Muslim and pro-ISIS sentiment in U.S. counties. *Science Advances, 4*(6), eaao5948. <https://doi.org/10.1126/sciadv.aao5948>
14. Becker, M. H. (2019). When Extremists Become Violent: Examining the Association Between Social Control, Social Learning, and Engagement in Violent Extremism. *Studies in Conflict & Terrorism, 1*–21. <https://doi.org/10.1080/1057610X.2019.1626093>
15. Bélanger, J. J., Moyano, M., Muhammad, H., Richardson, L., Lafrenière, M.-A. K., McCaffery, P., Framand, K., & Nociti, N. (2019). Radicalization Leading to Violence: A Test of the 3N Model. *Frontiers in Psychiatry, 10*, 42. <https://doi.org/10.3389/fpsy.2019.00042>
16. Beller, J., & Kröger, C. (2018). Religiosity, religious fundamentalism, and perceived threat as predictors of Muslim support for extremist violence. *Psychology of Religion and Spirituality, 10*(4), 345–355. <https://doi.org/10.1037/rel0000138>
17. Bensaid, B. (2017). THE PATH TO SELF-RADICALIZATION: READINGS INTO THE CASE OF MARTIN 'AHMAD' COUTURE-ROULEAU (AHMAD LE CONVERTI). *Journal of Al-Tamaddun, 12*(1), 15–33. <https://doi.org/10.22452/JAT.vol12no1.2>
18. Besta, T. (2014). Overlap between personal and group identity and its relation with radical pro-group attitudes: Data from a Central European cultural context. *Studia Psychologica, 56*(1), 67–81.
19. Bhui, K., Everitt, B., & Jones, E. (2014). Might Depression, Psychosocial Adversity, and Limited Social Assets Explain Vulnerability to and Resistance against Violent Radicalisation? *PLoS ONE, 9*(9), e105918. <https://doi.org/10.1371/journal.pone.0105918>
20. Bhui, K., Silva, M. J., Topciu, R. A., & Jones, E. (2016). Pathways to sympathies for violent protest and terrorism. *British Journal of Psychiatry, 209*(6), 483–490. <https://doi.org/10.1192/bjp.bp.116.185173>

21. Bhui, K., Warfa, N., & Jones, E. (2014). Is Violent Radicalisation Associated with Poverty, Migration, Poor Self-Reported Health and Common Mental Disorders? *PLoS ONE*, *9*(3), e90718. <https://doi.org/10.1371/journal.pone.0090718>
22. Böckler, N., Hoffmann, J., & Meloy, J. R. (2017). "Jihad Against the Enemies of Allah": The Berlin Christmas Market Attack from a Threat Assessment Perspective. *Violence and Gender*, *4*(3), 73–80. <https://doi.org/10.1089/vio.2017.0040>
23. 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>
24. Botha, A. (2014). Political Socialization and Terrorist Radicalization Among Individuals Who Joined al-Shabaab in Kenya. *Studies in Conflict & Terrorism*, *37*(11), 895–919. <https://doi.org/10.1080/1057610X.2014.952511>
25. Brunt, B. V., Murphy, A., & Ann, Z. (2017). An Exploration of the Risk, Protective, and Mobilization Factors Related to Violent Extremism in College Populations. *Violence and Gender*. <https://doi.org/10.1089/vio.2017.0039>
26. Bubolz, B. F., & Simi, P. (2019). The Problem of Overgeneralization: The Case of Mental Health Problems and U.S. Violent White Supremacists. *American Behavioral Scientist*, 0002764219831746. <https://doi.org/10.1177/0002764219831746>
27. Campelo, N., Bouzar, L., Oppetit, A., Pellerin, H., Hefez, S., Bronsard, G., Cohen, D., & Bouzar, D. (2018). Joining the Islamic State from France between 2014 and 2016: An observational follow-up study. *Palgrave Communications*, *4*(1), 137. <https://doi.org/10.1057/s41599-018-0191-8>
28. Capellan, J. A., & Anisin, A. (2018). A Distinction Without a Difference? Examining the Causal Pathways Behind Ideologically Motivated Mass Public Shootings. *Homicide Studies*, *22*(3), 235–255. <https://doi.org/10.1177/1088767918770704>
29. Choi, S.-W., & Piazza, J. A. (2016). Internally Displaced Populations and Suicide Terrorism. *Journal of Conflict Resolution*, *60*(6), 1008–1040. <https://doi.org/10.1177/0022002714550086>
30. Coid, J. W., Bhui, K., MacManus, D., Kallis, C., Bebbington, P., & Ullrich, S. (2016). Extremism, religion and psychiatric morbidity in a population-based sample of young men. *British Journal of Psychiatry*, *209*(6), 491–497. <https://doi.org/10.1192/bjp.bp.116.186510>

31. Costello, M., Barrett-Fox, R., Bernatzky, C., Hawdon, J., & Mendes, K. (2018). Predictors of Viewing Online Extremism Among America's Youth. *Youth & Society*, 0044118X18768115. <https://doi.org/10.1177/0044118X18768115>
32. Cottee, S. (2019). The calypso caliphate: How Trinidad became a recruiting ground for ISIS. *International Affairs*, 95(2), 297–317. <https://doi.org/10.1093/ia/iiz026>
33. Danzell, O. E., & Montañez, L. M. M. (2016). Understanding the lone wolf terror phenomena: Assessing current profiles. *Behavioral Sciences of Terrorism and Political Aggression*, 8(2), 135–159. <https://doi.org/10.1080/19434472.2015.1070189>
34. Dawson, L. L. (2018). Debating the Role of Religion in the Motivation of Religious Terrorism. *Nordic Journal of Religion and Society*, 31(02), 98–117. <https://doi.org/10.18261/issn.1890-7008-2018-02-02>
35. Dawson, L. L., & Amarasingam, A. (2017). Talking to Foreign Fighters: Insights into the Motivations for *Hijrah* to Syria and Iraq. *Studies in Conflict & Terrorism*, 40(3), 191–210. <https://doi.org/10.1080/1057610X.2016.1274216>
36. Deckard, N. D., & Jacobson, D. (2015). The prosperous hardliner: Affluence, fundamentalism, and radicalization in Western European Muslim communities: *Social Compass*. <https://doi.org/10.1177/0037768615587827>
37. Decker, S. H., & Pyrooz, D. C. (2019). Activism and Radicalism in Prison: Measurement and Correlates in a Large Sample of Inmates in Texas. *Justice Quarterly*, 36(5), 787–815. <https://doi.org/10.1080/07418825.2018.1462396>
38. Detges, A. (2017). Droughts, state-citizen relations and support for political violence in Sub-Saharan Africa: A micro-level analysis. *Political Geography*, 61, 88–98. <https://doi.org/10.1016/j.polgeo.2017.07.005>
39. Doosje, B., Loseman, A., & Bos, K. van den. (2013). Determinants of Radicalization of Islamic Youth in the Netherlands: Personal Uncertainty, Perceived Injustice, and Perceived Group Threat. *Journal of Social Issues*, 69(3), 586–604. <https://doi.org/10.1111/josi.12030>
40. Ellis, B. H., Sideridis, G., Miller, A. B., Abdi, S. M., & Winer, J. P. (2019). Trauma, Trust in Government, and Social Connection: How Social Context Shapes Attitudes Related to the Use of Ideologically or Politically Motivated Violence. *Studies in Conflict & Terrorism*, 1–18. <https://doi.org/10.1080/1057610X.2019.1616929>
41. Erlandsson, Å., & Meloy, J. R. (2018). The Swedish School Attack in Trollhättan. *Journal of Forensic Sciences*, 63(6), 1917–1927. <https://doi.org/10.1111/1556-4029.13800>

42. Everton, S. F. (2016). Social Networks and Religious Violence. *Review of Religious Research, 58*(2), 191–217. <https://doi.org/10.1007/s13644-015-0240-3>
43. Ferenczi, N., Marshall, T. C., Lefringhausen, K., & Bejanyan, K. (2016). Associations of insecure attachment with extreme pro-group actions: The mediating role of perceived marginalisation. *Personality and Individual Differences, 91*, 84–88. <https://doi.org/10.1016/j.paid.2015.11.057>
44. Ferguson, N., & McAuley, J. W. (2020). Radicalization or Reaction: Understanding Engagement in Violent Extremism in Northern Ireland. *Political Psychology, 41*(2), 215–230. <https://doi.org/10.1111/pops.12618>
45. Fernández García-Andrade, R., Serván Rendón-Luna, B., Reneses Prieto, B., Vidal Martínez, V., Medina Téllez de Meneses, E., & Fernández Rodríguez, E. (2019). Forensic-psychiatric assessment of the risk of terrorist radicalisation in the mentally ill patient. *Spanish Journal of Legal Medicine, 45*(2), 59–66. <https://doi.org/10.1016/j.remle.2019.01.003>
46. Frounfelker, R. L., Frissen, T., Vanorio, I., Rousseau, C., & d'Haenens, L. (2019). Exploring the discrimination–radicalization nexus: Empirical evidence from youth and young adults in Belgium. *International Journal of Public Health, 64*(6), 897–908. <https://doi.org/10.1007/s00038-019-01226-z>
47. Gartenstein-Ross, D. (2014). Lone Wolf Islamic Terrorism: Abdulhakim Mujahid Muhammad (Carlos Bledsoe) Case Study. *Terrorism and Political Violence, 26*(1), 110–128. <https://doi.org/10.1080/09546553.2014.849921>
48. González, A. L., Freilich, J. D., & Chermak, S. M. (2014). How Women Engage Homegrown Terrorism. *Feminist Criminology, 9*(4), 344–366. <https://doi.org/10.1177/1557085114529809>
49. Grace, E. (2018). Lex talionis in the twenty-first century: Revenge ideation and terrorism. *Behavioral Sciences of Terrorism and Political Aggression, 10*(3), 249–263. <https://doi.org/10.1080/19434472.2018.1428660>
50. Hansen, H. E., Nemeth, S. C., & Mauslein, J. A. (2018). Ethnic political exclusion and terrorism: Analyzing the local conditions for violence. *Conflict Management and Peace Science, 0738894218782160*. <https://doi.org/10.1177/0738894218782160>
51. Harris-Hogan, S. (2006). *The Importance of Family: The Key to Understanding the Evolution of Jihadism in Australia*. 21.
52. Hegghammer, T. (2006). Terrorist recruitment and radicalization in Saudi Arabia. *Middle East Policy, 13*(4), 39–60. <https://doi.org/10.1111/j.1475-4967.2006.00269.x>

53. Holt, T. J., Freilich, J. D., Chermak, S. M., Mills, C., & Silva, J. (2019). Loners, Colleagues, or Peers? Assessing the Social Organization of Radicalization. *American Journal of Criminal Justice*, 44(1), 83–105. <https://doi.org/10.1007/s12103-018-9439-5>
54. Hüttermann, J. (2018). Neighbourhood Effects on Jihadist Radicalisation in Germany? Some Case-Based Remarks. *International Journal of Conflict and Violence (IJCV)*, 12, a649–a649. <https://doi.org/10.4119/ijcv-3100>
55. Ilardi, G. J. (2013). Interviews With Canadian Radicals. *Studies in Conflict & Terrorism*, 36(9), 713–738. <https://doi.org/10.1080/1057610X.2013.813248>
56. Jasko, K., LaFree, G., & Kruglanski, A. (2017). Quest for Significance and Violent Extremism: The Case of Domestic Radicalization. *Political Psychology*, 38(5), 815–831. <https://doi.org/10.1111/pops.12376>
57. Jenne, E. K., Saideman, S. M., & Lowe, W. (2007). Separatism as a Bargaining Posture: The Role of Leverage in Minority Radicalization. *Journal of Peace Research*, 44(5), 539–558. <https://doi.org/10.1177/0022343307080853>
58. Jones, S. (2018). Radicalisation in the Philippines: The Cotabato Cell of the “East Asia Wilayah.” *Terrorism and Political Violence*, 30(6), 933–943. <https://doi.org/10.1080/09546553.2018.1481190>
59. Kanas, A., Scheepers, P., & Sterkens, C. (2015). Interreligious Contact, Perceived Group Threat, and Perceived Discrimination: Predicting Negative Attitudes among Religious Minorities and Majorities in Indonesia. *Social Psychology Quarterly*, 78(2), 102–126. <https://doi.org/10.1177/0190272514564790>
60. Kavanagh, J. (2011). Selection, Availability, and Opportunity: The Conditional Effect of Poverty on Terrorist Group Participation. *Journal of Conflict Resolution*, 55(1), 106–132. <https://doi.org/10.1177/0022002710374713>
61. Kmietowicz, Z. (2014). Radicalisation is a public health problem that needs to be prevented, says psychiatrist. *BMJ*, 349(oct17 1), g6273–g6273. <https://doi.org/10.1136/bmj.g6273>
62. Kropiunigg, U. (2013). Framing radicalization and deradicalization: A case study from Saudi Arabia. *The Journal of Individual Psychology*, 69(2), 97–117.
63. LaFree, G., Jensen, M. A., James, P. A., & Safer-Lichtenstein, A. (2018). Correlates of Violent Political Extremism in the United States*. *Criminology*, 56(2), 233–268. <https://doi.org/10.1111/1745-9125.12169>

64. Lara-Cabrera, R., González Pardo, A., Benouaret, K., Faci, N., Benslimane, D., & Camacho, D. (2017). Measuring the Radicalisation Risk in Social Networks. *IEEE Access*, *5*, 10892–10900. <https://doi.org/10.1109/ACCESS.2017.2706018>
65. Lara-Cabrera, R., Gonzalez-Pardo, A., & Camacho, D. (2019). Statistical analysis of risk assessment factors and metrics to evaluate radicalisation in Twitter. *Future Generation Computer Systems*, *93*, 971–978. <https://doi.org/10.1016/j.future.2017.10.046>
66. Leuzinger-Bohleber, M. (2016). From free speech to IS—Pathological regression of some traumatized adolescents from a migrant background in Germany. *International Journal of Applied Psychoanalytic Studies*, *13*(3), 213–223. <https://doi.org/10.1002/aps.1499>
67. Lindekilde, L., Bertelsen, P., & Stohl, M. (2016). Who Goes, Why, and With What Effects: The Problem of Foreign Fighters from Europe. *Small Wars & Insurgencies*, *27*(5), 858–877. <https://doi.org/10.1080/09592318.2016.1208285>
68. Lindemann, S., & Wimmer, A. (2018). Repression and refuge: Why only some politically excluded ethnic groups rebel. *Journal of Peace Research*, *55*(3), 305–319. <https://doi.org/10.1177/0022343317747337>
69. Lutz, J. M. (2017). Risk Sensitivity and the Sikh Uprising in the Punjab. *India Quarterly: A Journal of International Affairs*, *73*(3), 327–341. <https://doi.org/10.1177/0974928417716213>
70. 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>
71. Mahfud, Y., & Adam-Troian, J. (2019). "Macron demission!": Loss of significance generates violent extremism for the Yellow Vests through feelings of anomia. *Group Processes*, *17*.
72. Marone, F. (2017). Ties that Bind: Dynamics of Group Radicalisation in Italy's Jihadists Headed for Syria and Iraq. *The International Spectator*, *52*(3), 48–63. <https://doi.org/10.1080/03932729.2017.1322800>
73. Marvasti, J. A., & Rahman, M. (2017). The "lone wolf" terrorist and radicalization: The role of forensic psychology. *American Journal of Forensic Psychology*, *35*(4), 43–67.
74. Mastors, E., & Siers, R. (2014). Omar al-Hammami: A Case Study in Radicalization. *Behavioral Sciences & the Law*, *32*(3), 377–388. <https://doi.org/10.1002/bsl.2108>

75. McCauley, C. (2012). Testing Theories of Radicalization in Polls of U.S. Muslims: Testing Theories of Radicalization in Polls of U.S. Muslims. *Analyses of Social Issues and Public Policy*, 12(1), 296–311. <https://doi.org/10.1111/j.1530-2415.2011.01261.x>
76. McCauley, C. R. (2018). Explaining Homegrown Western Jihadists: The Importance of Western Foreign Policy. *International Journal of Conflict and Violence (IJCV)*, 12, a643–a643. <https://doi.org/10.4119/ijcv-3101>
77. Meloy, J. R., & Genzman, J. (2016). The Clinical Threat Assessment of the Lone-Actor Terrorist. *Psychiatric Clinics of North America*, 39(4), 649–662. <https://doi.org/10.1016/j.psc.2016.07.004>
78. Meloy, J. R., & Yakeley, J. (2014). The violent true believer as a 'lone wolf'—Psychoanalytic perspectives on terrorism. *Behavioral Sciences & the Law*, 32(3), 347–365. <https://doi.org/10.1002/bsl.2109>
79. Milla, M. N., Faturachman, & Ancok, D. (2013). The impact of leader–follower interactions on the radicalization of terrorists: A case study of the Bali bombers. *Asian Journal of Social Psychology*, 16(2), 92–100. <https://doi.org/10.1111/ajsp.12007>
80. Milla, M. N., Putra, I. E., & Umam, A. N. (2019). Stories from jihadists: Significance, identity, and radicalization through the call for jihad. *Peace and Conflict: Journal of Peace Psychology*, 25(2), 111–121. <https://doi.org/10.1037/pac0000371>
81. Mills, C. E., Freilich, J. D., Chermak, S. M., Holt, T. J., & LaFree, G. (2019). Social Learning and Social Control in the Off- and Online Pathways to Hate Crime and Terrorist Violence. *Studies in Conflict & Terrorism*, 1–29. <https://doi.org/10.1080/1057610X.2019.1585628>
82. Mitts, T. (2019). From Isolation to Radicalization: Anti-Muslim Hostility and Support for ISIS in the West. *American Political Science Review*, 113(1), 173–194. <https://doi.org/10.1017/S0003055418000618>
83. Mohamed Ali, R. B., Moss, S. A., Barrelle, K., & Lentini, P. (2017). Does the pursuit of meaning explain the initiation, escalation, and disengagement of violent extremists? *Aggression and Violent Behavior*, 34, 185–192. <https://doi.org/10.1016/j.avb.2017.01.013>
84. Moyano, M., & Trujillo, H. M. (2014). Intention of activism and radicalism among Muslim and Christian youth in a marginal neighbourhood in a Spanish city / Intención de activismo y radicalismo de jóvenes musulmanes y cristianos residentes en un barrio marginal de una ciudad española. *Revista de Psicología Social*, 29(1), 90–120. <https://doi.org/10.1080/02134748.2013.878571>

85. Neumann, K., Arendt, F., & Baugut, P. (2018). News and Islamist Radicalization Processes: Investigating Muslims' Perceptions of Negative News Coverage of Islam. *Mass Communication and Society*, 21(4), 498–523. <https://doi.org/10.1080/15205436.2018.1430832>
86. Nilsson, M. (2019). Motivations for Jihad and Cognitive Dissonance – A Qualitative Analysis of Former Swedish Jihadists. *Studies in Conflict & Terrorism*, 1–19. <https://doi.org/10.1080/1057610X.2019.1626091>
87. Nivette, A., Eisner, M., & Ribeaud, D. (2017). Developmental Predictors of Violent Extremist Attitudes: A Test of General Strain Theory. *Journal of Research in Crime and Delinquency*, 54(6), 755–790. <https://doi.org/10.1177/0022427817699035>
88. Nuraniyah, N. (2018). Not Just Brainwashed: Understanding the Radicalization of Indonesian Female Supporters of the Islamic State. *Terrorism and Political Violence*, 30(6), 890–910. <https://doi.org/10.1080/09546553.2018.1481269>
89. Obaidi, M., Bergh, R., Akrami, N., & Anjum, G. (2019). Group-Based Relative Deprivation Explains Endorsement of Extremism Among Western-Born Muslims. *Psychological Science*, 30(4), 596–605. <https://doi.org/10.1177/0956797619834879>
90. Oppetit, A., Campelo, N., Bouzar, L., Pellerin, H., Hefez, S., Bronsard, G., Bouzar, D., & Cohen, D. (2019). Do Radicalized Minors Have Different Social and Psychological Profiles From Radicalized Adults? *Frontiers in Psychiatry*, 10, 644. <https://doi.org/10.3389/fpsy.2019.00644>
91. Osman, S. (2010). Jemaah Islamiyah: Of Kin and Kind. *Journal of Current Southeast Asian Affairs*, 29(2), 157–175. <https://doi.org/10.1177/186810341002900205>
92. Ozer, S., & Bertelsen, P. (2019). Countering radicalization: An empirical examination from a life psychological perspective. *Peace and Conflict: Journal of Peace Psychology*, 25(3), 211–225. <https://doi.org/10.1037/pac0000394>
93. Panayotov, B. (2019). Crime and terror of social exclusion: The case of 13 imams in Bulgaria. *European Journal of Criminology*, 16(3), 369–387. <https://doi.org/10.1177/1477370819829650>
94. Pauwels, L. J. R., & Heylen, B. (2017). Perceived Group Threat, Perceived Injustice, and Self-Reported Right-Wing Violence: An Integrative Approach to the Explanation Right-Wing Violence. *Journal of Interpersonal Violence*, 0886260517713711. <https://doi.org/10.1177/0886260517713711>

95. Pauwels, L., & Schils, N. (2016). Differential Online Exposure to Extremist Content and Political Violence: Testing the Relative Strength of Social Learning and Competing Perspectives. *Terrorism and Political Violence*, 28(1), 1–29. <https://doi.org/10.1080/09546553.2013.876414>
96. Pearson, E. (2016). The Case of Roshonara Choudhry: Implications for Theory on Online Radicalization, ISIS Women, and the Gendered Jihad: Gender and Online Radicalization. *Policy & Internet*, 8(1), 5–33. <https://doi.org/10.1002/poi3.101>
97. Pearson, E., & Winterbotham, E. (2017). Women, Gender and Daesh Radicalisation: A Milieu Approach. *The RUSI Journal*, 162(3), 60–72. <https://doi.org/10.1080/03071847.2017.1353251>
98. Pedersen, W., Vestel, V., & Bakken, A. (2018). At risk for radicalization and jihadism? A population-based study of Norwegian adolescents. *Cooperation and Conflict*, 53(1), 61–83. <https://doi.org/10.1177/0010836717716721>
99. Penagos-Corzo, J. C., Antonio, A. A., Dorantes-Argandar, G., & Alcázar-Olán, R. J. (2019). Psychometric Properties and Development of a Scale Designed to Evaluate the Potential of Predatory Violent Behavior. *Frontiers in Psychology*, 10, 1648. <https://doi.org/10.3389/fpsyg.2019.01648>
100. Perliger, A., & Pedahzur, A. (2014). Counter Cultures, Group Dynamics and Religious Terrorism: *Political Studies*. <https://journals.sagepub.com/doi/10.1111/1467-9248.12182>
101. Pfundmair, M. (2019). Ostracism promotes a terroristic mindset. *Behavioral Sciences of Terrorism and Political Aggression*, 11(2), 134–148. <https://doi.org/10.1080/19434472.2018.1443965>
102. Pfundmair, M., Aßmann, E., Kiver, B., Penzkofer, M., Scheuermeyer, A., Sust, L., & Schmidt, H. (2019). Pathways toward Jihadism in Western Europe: An Empirical Exploration of a Comprehensive Model of Terrorist Radicalization. *Terrorism and Political Violence*, 1–23. <https://doi.org/10.1080/09546553.2019.1663828>
103. Pfundmair, M., & Wetherell, G. (2019). Ostracism drives group moralization and extreme group behavior. *The Journal of Social Psychology*, 159(5), 518–530. <https://doi.org/10.1080/00224545.2018.1512947>
104. Piazza, J. A. (2011). Poverty, minority economic discrimination, and domestic terrorism. *Journal of Peace Research*, 48(3), 339–353. <https://doi.org/10.1177/0022343310397404>

105. Piazza, J. A. (2017). The determinants of domestic right-wing terrorism in the USA: Economic grievance, societal change and political resentment. *Conflict Management and Peace Science*, 34(1), 52–80. <https://doi.org/10.1177/0738894215570429>
106. Pisoiu, D. (2015). Subcultural theory applied to jihadi and Right-wing radicalization in Germany. *Terrorism and Political Violence*, 27(1), 9–28. <https://doi.org/10.1080/09546553.2014.959406>
107. Prats, M., Raymond, S., & Gasman, I. (2019). Religious Radicalization and Lone-Actor Terrorism: A Matter for Psychiatry? *Journal of Forensic Sciences*, 64(4), 1253–1258. <https://doi.org/10.1111/1556-4029.13992>
108. Ramakrishna, K. (2018). The Radicalization of Abu Hamdie: Wider Lessons for the Ongoing Struggle Against Violent Extremism in Post-Marawi Mindanao. *Journal of Asian Security and International Affairs*, 5(2), 111–128. <https://doi.org/10.1177/2347797018783117>
109. Reeve, Z. (2019a). Engaging with Online Extremist Material: Experimental Evidence. *Terrorism and Political Violence*, 1–26. <https://doi.org/10.1080/09546553.2019.1634559>
110. Reeve, Z. (2019b). Terrorism as Parochial Altruism: Experimental Evidence. *Terrorism and Political Violence*, 1–24. <https://doi.org/10.1080/09546553.2019.1635121>
111. Reisinger, M. (2018). Addiction to death. *CNS Spectrums*, 23(2), 166–169. <https://doi.org/10.1017/S1092852917000657>
112. Reynolds, S. C., & Hafez, M. M. (2019). Social Network Analysis of German Foreign Fighters in Syria and Iraq. *Terrorism and Political Violence*, 31(4), 661–686. <https://doi.org/10.1080/09546553.2016.1272456>
113. Riaz, A., & Parvez, S. (2018). Bangladeshi Militants: What Do We Know? *Terrorism and Political Violence*, 30(6), 944–961. <https://doi.org/10.1080/09546553.2018.1481312>
114. Rieger, D., Frischlich, L., & Bente, G. (2019). Dealing with the dark side: The effects of right-wing extremist and Islamist extremist propaganda from a social identity perspective. *Media, War & Conflict*, 1750635219829165. <https://doi.org/10.1177/1750635219829165>
115. Rinehart, C. S. (2009). Volatile Breeding Grounds: The Radicalization of the Egyptian Muslim Brotherhood. *Studies in Conflict & Terrorism*, 32(11), 953–988. <https://doi.org/10.1080/10576100903262773>

116. Rink, A., & Sharma, K. (2018). The Determinants of Religious Radicalization: Evidence from Kenya. *Journal of Conflict Resolution*, 62(6), 1229–1261. <https://doi.org/10.1177/0022002716678986>
117. Rousseau, C., Ellis, B. H., & Lantos, J. D. (2017). The Dilemma of Predicting Violent Radicalization. *Pediatrics*, 140(4), e20170685. <https://doi.org/10.1542/peds.2017-0685>
118. Rousseau, C., Hassan, G., Miconi, D., Lecompte, V., Mekki-Berrada, A., El Hage, H., & Oulhote, Y. (2019). From social adversity to sympathy for violent radicalization: The role of depression, religiosity and social support. *Archives of Public Health*, 77(1), 45. <https://doi.org/10.1186/s13690-019-0372-y>
119. Rousseau, C., Oulhote, Y., Lecompte, V., Mekki-Berrada, A., Hassan, G., & El Hage, H. (2019). Collective identity, social adversity and college student sympathy for violent radicalization. *Transcultural Psychiatry*, 1363461519853653. <https://doi.org/10.1177/1363461519853653>
120. Savage, S., & Liht, J. (2008). Mapping fundamentalisms: The psychology of religion as a sub-discipline in the understanding of religiously motivated violence. *Archiv Für Religionspsychologie / Archive for the Psychology of Religion*, 30, 75–91. <https://doi.org/10.1163/157361208X316971>
121. Schaafsma, J., & Williams, K. D. (2012). Exclusion, intergroup hostility, and religious fundamentalism. *Journal of Experimental Social Psychology*, 48(4), 829–837. <https://doi.org/10.1016/j.jesp.2012.02.015>
122. Schils, N., & Verhage, A. (2017). Understanding How and Why Young People Enter Radical or Violent Extremist Groups. *International Journal of Conflict and Violence (IJCV)*, 11, a473–a473. <https://doi.org/10.4119/ijcv-3084>
123. Shah, A. (2018). Do U.S. Drone Strikes Cause Blowback? Evidence from Pakistan and Beyond. *International Security*, 42(04), 47–84. https://doi.org/10.1162/isec_a_00312
124. Shapiro, L. R., & Maras, M.-H. (2019). Women's Radicalization to Religious Terrorism: An Examination of ISIS Cases in the United States. *Studies in Conflict & Terrorism*, 42(1–2), 88–119. <https://doi.org/10.1080/1057610X.2018.1513694>
125. Shortland, N., Nader, E., Imperillo, N., Ross, K., & Dmello, J. (2017). The Interaction of Extremist Propaganda and Anger as Predictors of Violent Responses. *Journal of Interpersonal Violence*, 0886260517747599. <https://doi.org/10.1177/0886260517747599>

126. Sieckelinck, S., Sikkens, E., van San, M., Kotnis, S., & De Winter, M. (2019). Transitional Journeys Into and Out of Extremism. A Biographical Approach. *Studies in Conflict & Terrorism, 42*(7), 662–682. <https://doi.org/10.1080/1057610X.2017.1407075>
127. Simi, P., Sporer, K., & Bubolz, B. F. (2016). Narratives of Childhood Adversity and Adolescent Misconduct as Precursors to Violent Extremism: A Life-Course Criminological Approach. *Journal of Research in Crime and Delinquency*. <https://doi.org/10.1177/0022427815627312>
128. Skillicorn, D. B., Leuprecht, C., & Winn, C. (2012). Homegrown Islamist Radicalization in Canada: Process Insights from an Attitudinal Survey. *Canadian Journal of Political Science, 45*(4), 929–956. <https://doi.org/10.1017/S0008423912001023>
129. Soliman, A., Bellaj, T., & Khelifa, M. (2016). An integrative psychological model for radicalism: Evidence from structural equation modeling. *Personality and Individual Differences, 95*, 127–133. <https://doi.org/10.1016/j.paid.2016.02.039>
130. Speckhard, A., & Shajkovci, A. (2019). The Jihad in Kenya: Understanding Al-Shabaab Recruitment and Terrorist Activity inside Kenya—in Their Own Words. *African Security, 12*(1), 3–61. <https://doi.org/10.1080/19392206.2019.1587142>
131. Stankov, L., Knežević, G., Saucier, G., Radović, B., & Milovanović, B. (2018). Militant Extremist Mindset and the Assessment of Radicalization in the General Population. *Journal of Individual Differences, 39*(2), 88–98. <https://doi.org/10.1027/1614-0001/a000253>
132. Tahir, H., Rønningsdalen Kunst, J., & Lackland Sam, D. (2019). Threat, Anti-Western Hostility and Violence among European Muslims: The Mediating Role of Acculturation. *International Journal of Intercultural Relations, 73*, 74–88. <https://doi.org/10.1016/j.ijintrel.2019.08.001>
133. Thomas, E. F., McGarty, C., & Louis, W. (2014). Social interaction and psychological pathways to political engagement and extremism. *European Journal of Social Psychology, 44*(1), 15–22. <https://doi.org/10.1002/ejsp.1988>
134. Trip, S., Marian, M. I., Halmajan, A., Drugas, M. I., Bora, C. H., & Roseanu, G. (2019). Irrational Beliefs and Personality Traits as Psychological Mechanisms Underlying the Adolescents' Extremist Mind-Set. *Frontiers in Psychology, 10*, 1184. <https://doi.org/10.3389/fpsyg.2019.01184>
135. Troian, J., Baidada, O., Arciszewski, T., Apostolidis, T., Celebi, E., & Yurtbakan, T. (2019). Evidence for indirect loss of significance effects on violent extremism: The potential

- mediating role of anomia. *Aggressive Behavior*, 45(6), 691–703. <https://doi.org/10.1002/ab.21863>
136. Trujillo, H. M., Jordan, J., Antonio Gutierrez, J., & Gonzalez-Cabrera, J. (2009). Radicalization in Prisons? Field Research in 25 Spanish Prisons. *Terrorism and Political Violence*, 21(4), 558–579. <https://doi.org/10.1080/09546550903153134>
137. van Bergen, D. D., Ersanilli, E. F., Pels, T. V. M., & De Ruyter, D. J. (2016). Turkish-Dutch youths' attitude toward violence for defending the in-group: What role does perceived parenting play? *Peace and Conflict: Journal of Peace Psychology*, 22(2), 120–133. <https://doi.org/10.1037/pac0000173>
138. van Bergen, D. D., Feddes, A. F., Doosje, B., & Pels, T. V. M. (2015). Collective identity factors and the attitude toward violence in defense of ethnicity or religion among Muslim youth of Turkish and Moroccan Descent. *International Journal of Intercultural Relations*, 47, 89–100. <https://doi.org/10.1016/j.ijintrel.2015.03.026>
139. Vidino, L. (2011). The Buccinasco Pentiti: A Unique Case Study of Radicalization. *Terrorism and Political Violence*, 23(3), 398–418. <https://doi.org/10.1080/09546553.2010.540274>
140. Waele, M. S. O. D., & Pauwels, L. (2014). Youth Involvement in Politically Motivated Violence: Why Do Social Integration, Perceived Legitimacy, and Perceived Discrimination Matter? *International Journal of Conflict and Violence (IJCV)*, 8(1), 134–153. <https://doi.org/10.4119/ijcv-3050>
141. Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M., Bélanger, J. J., Moyano, M., Trujillo, H. M., Gunaratna, R., Kruglanski, A. W., & Gelfand, M. J. (2018). The road to extremism: Field and experimental evidence that significance loss-induced need for closure fosters radicalization. *Journal of Personality and Social Psychology*, 114(2), 270–285. <https://doi.org/10.1037/pspi0000111>
142. Webber, D., Klein, K., Kruglanski, A., Brizi, A., & Merari, A. (2017). Divergent Paths to Martyrdom and Significance Among Suicide Attackers. *Terrorism and Political Violence*, 29(5), 852–874. <https://doi.org/10.1080/09546553.2015.1075979>
143. Wilner, A. S., & Dubouloz, C.-J. (2011). Transformative Radicalization: Applying Learning Theory to Islamist Radicalization. *Studies in Conflict & Terrorism*, 34(5), 418–438. <https://doi.org/10.1080/1057610X.2011.561472>
144. Yeste, M. P. (2014). A cognitive-behavioral approach to violent radicalization, based on a real case. *Psicología Política*, 49.

145. Yusof, N., Kaur, A., Sani, M. A. M., & Hashim, R. A. (2019). *A Qualitative Expert Interview Approach towards Understanding Religious Extremism among Malaysian Youth*. 18.
146. Zaidi, S. M. A. (2010). The poverty-radicalisation nexus in Pakistan. *Global Crime*, 11(4), 399–420. <https://doi.org/10.1080/17440572.2010.519521>
147. Zhirkov, K., Verkuyten, M., & Weesie, J. (2014). Perceptions of world politics and support for terrorism among Muslims: Evidence from Muslim countries and Western Europe. *Conflict Management and Peace Science*, 31(5), 481–501. <https://doi.org/10.1177/0738894213510121>
148. Zmigrod, L., Rentfrow, P. J., & Robbins, T. W. (2019). Cognitive Inflexibility Predicts Extremist Attitudes. *Frontiers in Psychology*, 10, 989. <https://doi.org/10.3389/fpsyg.2019.00989>

3 AN EMPIRICAL ASSESSMENT OF THE DETERMINANTS OF RADICALIZATION: EVIDENCE FROM NORTH-WESTERN PAKISTAN

Radicalization currently appears as a formidable challenge to the security of several nations. While radicalization continues to grow, empirical evidence on its determinants remains scant. Drawing on the surge in radicalization in Pakistan, this study jointly tests a diverse set of micro, macro, and meso factors to identify the influential determinants of radicalization. This is accomplished using survey data collected in the Khyber Pakhtunkhwa province of Pakistan. The study constructs a comprehensive index of radicalization taking into account the support for militant groups, the prevalence of violent behavioral intentions, and the endorsement of persecution/violence against Ahmadis and the alleged blasphemers of Islam. Results show that radicalization is predicted by the individual-level experience of adverse life events, macro-level economic and political marginalization, meso-level group/community influences such as Salafism, and sociodemographic characteristics, especially gender. This indicates that the radicalization process is driven by an interplay of micro-level psychological vulnerabilities, macro-level socio-political grievances, and meso-level process-oriented factors.

Keywords: Radicalization, Extremism, Blasphemy, Pakistan

3.1 Introduction

Radicalization is 'the psychological, emotional and behavioral process by which an individual adopts an ideology that promotes the use of violence for the attainment of political, economic, religious or social goals' (Jensen, Atwell Seate and James, 2018). To contain the threats posed by radicalization, it is imperative to understand the drivers of this process (Bayerl *et al.*, 2014). Among the various approaches to understanding radicalization, the study of vulnerable and radicalized individuals – for distilling psychological precursors – dominates the existing literature (Kundnani, 2012; Schmid, 2013; Silva, 2018). While this approach offers important insights, it cannot undertake and jointly test the competing non-psychological factors/hypotheses that may also explain radicalization. Since the aforementioned approach is mainly based on the profiles of the already radicalized individuals, it also has the limitation of selection on the dependent variable due to a lack of counterfactuals (Rink and Sharma, 2018). Moreover, numerous studies argue that radicalization is a complex and multifactorial process, and several different factors may interact to drive it (Kundnani, 2012; Allan *et al.*, 2015; Süß and Noor Baheige Aakhunzzada, 2019). Thus, restricting the study of radicalization to individual-level psychological determinants discards a multitude of socio-political and community-related factors, which may also wield a considerable influence (Schmid, 2013). Despite the

emphasis, the literature shows a dearth of studies that jointly test these diverse factors and their interactions (Schmid, 2013).

A systematic review of the scholarly literature on the determinants of radicalization identifies several micro-level psychological, macro-level socio-political, and meso-level group/community-related factors. To understand the drivers of radicalization and extremist violence in Pakistan, this study aims to test the predictive power of the most plausible of these factors. However, the paucity of empirical studies on the phenomenon makes the operationalization of the variables of interest challenging. Therefore, this study draws upon Rink and Sharma (2018), who operationalize and test a set of salient micro, macro, and meso factors for distilling the determinants of religious radicalization using survey data from Kenya. By adopting their empirical strategy, this study tests the influential determinants of radicalization using survey data from the Khyber Pakhtunkhwa (KP) province of Pakistan. KP, formerly known as the North-West Frontier Province (NWFP), served as the main recruitment and training ground of the Taliban during the anti-Soviet Afghan Jihad in the 1980s (Ahmad, 2013). This region is currently experiencing a surge in sectarian terror attacks, targeted killings of Ahmadis², and vigilante killings over allegations of blaspheming against Islam or its sacred figures/ideals.

This study adds to the literature in several ways. First, it adopts the methodology of Rink and Sharma (2018), who regressed a measure of radicalization on a set of micro-level psychological, macro-level socio-political, and meso-level process-oriented factors using survey data of Kenyan Muslim and Christian respondents. The current study applies this method to the case of Pakistan by administering a comprehensive survey among undergraduate students of different universities in KP. The study furnishes empirical evidence from a region that first became the pivot of the Afghan Jihad during the Cold War and later an epicenter of the Taliban and Al-Qaeda's jihadist efforts following the commencement of the war on terror (Gunaratna and Nielsen, 2008). It thus helps overcome data deficiencies that plagued earlier studies on the region due to active conflict and skepticism over surveys, aroused especially by the fake vaccination campaign of a Pakistani physician for collecting the DNA samples of Osama Bin Laden (Zaidi, 2010; Gostin, 2014). Second, this study constructs a comprehensive index of radicalization that measures support for militant groups, persecution of Ahmadis, blasphemy vigilantism, and resentment against the American and domestic military forces. In contrast to the existing studies that primarily measure support for militants, this paper taps into issues central to

² Ahmadis are the followers of the Ahmadiyya sect within Islam who do not consider Muhammad as the last divine Prophet – a belief deemed mandatory by the orthodox Sunni Muslims for entering the fold of Islam. Non-adherence to this central belief is deemed blasphemous (Saeed, 2007).

the contemporary extremism landscape of Pakistan. Third, this paper analyzes the interactions between different factors – a strategy emphasized frequently in the literature but undertaken scantily (Vergani *et al.*, 2018). This helps decipher the mutually constitutive relationship between different variables. Fourth, the data collection strategy of this study enabled significant female participation, which is usually constrained by cultural and religious factors. This provides insights into the gendered perspective on the phenomenon, particularly into the case of women's radicalization, which is still under-researched (Bakker and de Leede, 2015; Pisoui and Ahmed, 2016; Moccia, 2019). Finally, by using the methodology of Rink and Sharma (2018), this study allows a comparison of the significant determinants of radicalization in Kenya and Pakistan. This helps gauge the generalizability of the findings across different conflict settings.

The study finds that radicalization is associated with the individual-level experience of adverse events, macro-level economic and political marginalization, meso-level influences such as Salafism, and sociodemographic characteristics, especially gender. This departs from Rink and Sharma (2018), who found radicalization to be un-associated with economic and political marginalization. Instead, they found troubled relations, religiosity, and networks as the predictors of radicalization in Kenya.

The findings of this study challenge the stereotype that considers religious influence as the dominant explanation for radicalization in Pakistan. It also contests studies that found macro-level economic and political grievances unassociated with radicalization. Moreover, the study detects a significant relationship between radicalization and several interaction terms. This indicates that variables from different levels modify/condition each other in influencing the dependent variable. These findings support Schmid (2013), who proposed the combination of micro, macro, and meso factors as a promising route for understanding radicalization.

3.2 Radicalization in Pakistan – A Brief Overview

Pakistan faces serious challenges posed by radicalization and the ensuing violence that has inflicted heavy human and infrastructure losses. Between 2001 and 2019, Pakistan suffered over 80,000 terrorism-related casualties (Hussain and Ahmad, 2022). Since 2001, 598 suicide attackers have targeted its citizenry and infrastructure (SATP, 2022). Moreover, between 2001 and 2017, the country bore an economic cost equivalent to \$ 126.79 billion due to incidents of terrorism (Pakistan Economic Survey 2017-18). Apart from these losses, the growing radicalization and the threat of its encroachment over mainstream society currently appear as pressing concerns for Pakistan. Most scholars trace the roots of this radicalization to the fashion in which the country is created and governed.

Pakistan was carved out of the Indian Subcontinent in 1947 on the premise of the 'Two-Nation Theory' – a religiopolitical ideology that asserted that the Hindu and Muslim communities of the then British India exhibit significant ethnic, religious, cultural, and social differences and are therefore two distinct nations. Hence, Muslims must establish their separate homeland where they can live without the threat of domination from the majority Hindus (Kadir and Jawad, 2020). This inspired the creation of distinct identities under religious leanings, which arguably provided the basis for the creation of Pakistan (Aziz, 2015).

The country's emergence under a dichotomous ideology of religious nationalism led to the anchoring of Pakistani identity solely on religion (Aziz, 2015). The exclusivist notion of religious nationalism was furthered through the adoption of the 'Objectives Resolution' by Pakistan's constituent assembly in 1949. This resolution attributed sovereignty to Allah and declared Islam as the basis for democracy, social justice, and governance. This ostracized the non-Muslims, deployed religion in politics, and elevated the role of the clergy as the interpreter of the will of Allah (Saigol, 2010).

With a spike in the cold war rivalries, Pakistan assumed a key position in the security setup of the region due to its geographical proximity to the then Soviet Union and the Middle East. To help check communist incursion in the region, Pakistan was made part of the South East Asian Treaty Organization (SEATO) and Central Treaty Organization (CENTO) in the 1950s, under which significant defense installations were built within the country under the aegis of the United States (Saif, 2007). The military buildup was complemented by the state-led elevation and support of the clergy, which was deemed crucial in the fight against communism (Javaid, 2011). This encouraged the clergy to press for aligning the state across the theological lines that they espoused. Under pressure from the religious lobbies, Pakistan amended its constitution in 1974 to declare Ahmadis as non-Muslims (Khan and Kiran, 2012; Aziz, 2015).

The space rendered to the clergy extended manifolds with the Soviet invasion of Afghanistan in 1979. With the support of the international anti-communist coalition, Pakistan harnessed fundamentalist religious notions to raise the manpower needed to fight the Soviets (Javaid, 2011). Throughout the 1980s, the state-led Islamization process flourished widely, which involved the re-orientation of the educational curricula on jihadist narratives, mushrooming of Madrassahs (religious seminaries), and widespread support of the Afghan fighters (Yusuf, 2008; Singh, 2010). With the Soviet withdrawal from Afghanistan in 1989, the majority of the indoctrinated, armed, and trained militants reverted to KP – the region bordered by Afghanistan where most of the jihadi recruitment and training had taken place (Ahmad, 2013).

The notion of religious nationalism, garnered initially for the country's creation, evolved into a primary denominator of identity over time. This narrow version of identity seeks exclusive alignment with Islam by rejecting all other denominators of identity, such as nationality, ethnicity, or tribal affiliation (Haque, 2014; Aziz, 2015). This has created enormous sectarian divisions since each of the many Islamic sects, with their diverging interpretations of Islam, claim to be the righteous one. This 'otherization' is inspiring debates and conflicts over the definition of a good and righteous Muslim. Given the inherent differences, adherents of the differing sects are often declared blasphemers, and violence against them is condoned, committed, and revered. The thrust of such violence is primarily directed towards Ahmadis, who to date received 265 fatalities over blasphemy allegations since they were first declared apostates. Over 300 of them have also been implicated under the country's blasphemy law that carries a mandatory death penalty for defiling the sanctity of Prophet Muhammad (The Persecution of Ahmadis, 2020). Under the umbrella of blasphemy vigilantism, the murderer–victim equation has gradually transformed into a 'Ghazi³–Murtad⁴' one that inspires vicious cycles of consecutive violence.

The above discussion summarizes the leading explanations that most scholars put forth to trace the root causes of radicalization in Pakistan. It suggests that radicalization in Pakistan is predominantly attributed to religious influences. However, the link between religion and radicalization remains contested among scholars (Rink and Sharma, 2018). Moreover, the contemporary literature refrains from a single factor explanation of radicalization and instead emphasizes the combination/interaction of several factors as a promising route to understanding the phenomenon. Given the evolving extremism landscape in Pakistan, it is imperative to look beyond the religiosity–radicalization nexus and analyze additional factors that the contemporary literature advocates as potential drivers of the phenomenon.

3.3 Theoretical Framework

A systematic review of the scholarly literature on the determinants of radicalization identifies several dozen factors as plausible explanations of radicalization. Drawing on Rink and Sharma (2018) and Fernandez, Gonzalez-Pardo and Alani (2019), these factors are grouped into micro, macro, and meso-level variables. Based on Rink and Sharma (2018), eight of these factors are selected for empirical testing due to their relevance to the Pakistani context.

³ Ghazi is an Arabic word referring to the participants of 'Ghazwah' – a military expedition led by the Prophet Muhammad. Since the blasphemy vigilantism is perceived as a defensive war for Islam, the perpetrator of such violence is revered as 'Ghazi' – referring to a sacred hero of Islam.

⁴ Apostate

3.3.1 Micro-level: Psychological Explanations

Micro factors are the psychological roots of individual radicalization. Factors studied under this level include adverse life events, troubled social relations, and violence exposure.

3.3.1.1 Adverse Life Events/Negative Catalyst Events

Several scholars argue that radicalization can be catalyzed by experiencing certain events of a traumatic nature. While studying the case of Jack Roche, a convicted Australian terrorist, Aly and Striegher (2012) noted that adverse events invoke the quest for ontological security, meaning-making, and affiliation seeking, rendering individuals receptive to extremist ideologies. The personal losses inflicted by these events may also ignite the desire for revenge through violence. This is evident from the case of the Chechen 'black widows' – female suicide bombers who retaliated against the Russian forces after they wrested their significant others. It also applies to Hanadi Jaradat, a lawyer from the West Bank who carried out a suicide attack at a restaurant in Israel that left 21 dead and 51 wounded. Her action was driven by vengeance for the deaths of her fiancé, cousin, and brother by the Israeli forces (Kruglanski *et al.*, 2014). In addition to personal reasons, certain events that appeal to collective conscience can also be consequential in the radicalization process. This is particularly relevant in the case of jihadist radicalization, where the perceived injustices against Muslims at large catalyze outrage and violence based on the shared sense of identity and belonging (Silke, 2008). Post 9/11, Pakistani society experienced adverse events in several manifestations, such as deaths, displacements, and disabilities due to the war against terror. Drawing on these, this study tests the relationship between adverse life events and radicalization in Pakistan.

3.3.1.2 Troubled Social Relations

Another strand of literature considers troubled social relations as precursors to radicalization. Troubled relations weaken one's self-concept and may compel individuals to search for an outsider enemy to externalize the blame. Such a state of mind makes individuals receptive to the polarizing rhetoric of the extremist groups (Rink and Sharma, 2018). Anaz, Aslan and Özkan (2016) studied the reasons that motivated Turkish fighters to join the Islamic State of Iraq and Syria. Through semi-structured interviews with these fighters and their families, they found troubled relations as a common feature in their social lives. Sieckelinck *et al.* (2019) also found the problematic home situation to be an important driver of extremism in their explorative study based on interviews with Dutch and Danish former extremists and their families. Prats, Raymond and Gasman (2019) made a similar observation while studying the case of a mentally ill patient who attempted murder under Jihadist motivations. The attacker had a complicated relationship with his family, including violent instances with his father and brother. These accounts suggest that troubled social

relations may act as an influential driver of radicalization. Hence, this study tests the relationship between troubled relations and radicalization in Pakistan.

3.3.1.3 Violence Exposure

Micro-level research further considers previous exposure to violence as a driver of radicalization. Elbert, Weierstall and Schauer (2010) argued that persistent exposures to violence could awaken hunting and predatory tendencies within individuals, which may develop an appetite and sensation for committing violent acts. Guerra, Rowell Huesmann and Spindler (2003) explored the impact of violence exposure on aggressive cognitions and behaviors using longitudinal data of school children from Chicago. They found that exposure to violence plays a crucial role in igniting violent cognitions, generating normative thoughts about aggression, and imitating violence. Political violence has been a recurring phenomenon in Pakistan since the beginning of the war on terror. Therefore, this study tests the relationship between violence exposure and radicalization in Pakistan.

3.3.2 Macro-level: Sociopolitical Factors

Macro-level includes the sociopolitical drivers of individual radicalization. Factors studied under this level include economic and political marginalization.

3.3.2.1 Economic Marginalization

Literature on the macro-level frequently mentions economic marginalization as an important driver of radicalization. Süß and Noor Baheige Aakhunzzada (2019) reviewed the relevant literature for analyzing the Islamist radicalization process in Egypt and Tunisia. They found socioeconomic marginalization as a crucial factor in radicalization and the emergence of militant groups. Holla (2020) assessed this relationship in a sample of Somali Muslims and found marginalization associated with the surge in radicalization. Based on the perception of university students, Ahmed, Yousaf and Zeb (2018) also found economic marginalization as an important driver of radicalization in Pakistan. Apart from these accounts, several studies contest the link between marginalization and radicalization. For instance, Blair et al. (2013) tested the relationship between poverty and support for militant groups using survey data from Pakistan. They found a greater dislike for militants among the poor Pakistanis. Likewise, Bhui, Warfa, and Jones (2014) assessed the vulnerability to violent radicalization in a sample of Muslims living in East London and Bradford. They found greater support for terrorist acts among the high earners. Since KP exhibits a significant share of economically marginalized districts and communities, this study tests the relationship between economic marginalization and radicalization in this setting.

3.3.2.2 Political Marginalization

Studies on the macro-level also mention political marginalization as an influential driver of radicalization. Politically marginalized individuals or groups see extreme actions as a way

to gain political influence, relevancy, and justice (Crone, 2016). Choi and Piazza (2016) analyzed terrorism data for 130 countries and found that states with politically excluded groups are more likely to experience terrorism. Hansen, Nemeth and Mauslein (2020) made a similar finding when analyzing the domestic terrorism data for 185 countries extracted from the Global Terrorism Database (GTD). These findings are, however, challenged by alternative studies. For instance, Piazza (2012) analyzed the relationship between political discrimination and terrorism using several cross-national datasets and found the two to be unrelated. Rink and Sharma (2018) also assessed the relationship between political marginalization and radicalization using survey data from Kenya and found these variables to be unrelated. Drawing on the prevailing political marginalization in KP, this study tests the relationship between political marginalization and radicalization.

3.3.3 Meso-level: Group/Community-related Factors

Meso-level drivers of individual radicalization include group and community-related processes. Factors studied under this level include religiosity, exposure to radical social networks, and Salafism. Rink and Sharma (2018) studied religiosity, networks, and religious conversion under the meso level. In this paper, Salafism is added to replace religious conversion due to the lack of converts in the study region.

3.3.3.1 Religiosity

Studies on the meso-level frequently argue that religion lies at the center of the radicalization process (Silke, 2008). For instance, Coid et al. (2016) studied extremist attitudes in British men and found religiosity was associated with anti-British extremist views. Dawson (2018) explored the role of religion in causing terrorism by conducting interviews with friends and families of Western foreign fighters in Syria and Iraq. They found religion as a key motivation for terrorism, particularly for Jihadists. These findings are, however, challenged by alternative studies. For instance, Fair, Malhotra and Shapiro (2012) assessed the relationship between religiosity and support for political violence using survey data from Pakistan and found these un-related. Likewise, Sajjad, Christie and Taylor (2017) also found no relationship between religion and radicalization after analyzing survey data from Pakistan. Another strand of research argues that instead of personal religiosity, the social aspects of religion may drive the radicalization process. For instance, Beller and Kröger (2018) assessed the predictors of support for extremism in 26 Muslim countries. They found support for extremism significantly related to participation in social religious activities. Rink and Sharma (2018) also found religious identity as an important driver of radicalization in Kenya. Drawing on these accounts, this study tests the relationship between religiosity and radicalization in Pakistan.

3.3.3.2 Networks

Meso-level studies also consider exposure to radical social networks as a risk factor for radicalization. Such networks furnish a structural connection with extremists, resulting in social learning through imitation and reinforcement (Pauwels and Schils, 2016). Böckler et al. (2018) analyzed the prosecution files of German Jihadi and school attackers and found friendships and social networks crucial in their radicalization. Ahmad (2016) studied the radicalization of youth in Islami Jamiat-e-Talaba (IJT), the student wing of Jamaat-e-Islami – a hardliner religious political party in Pakistan. The study found that friendship with IJT members played an important role in youth's socialization into radical worldviews. Andre and Harris-Hogan (2013) studied the radicalization process of Mohamed Merah, the 23-year-old French jihadist who killed several French soldiers and civilians in 2012. They found that social networks, particularly family members, played a key role in his radicalization. Rink and Sharma (2018) studied religious radicalization in Kenya and found radical social networks as key drivers of this process. Drawing on the presence of militant groups, student wings of religious parties, and Islamist organizations in Pakistan, this study tests the relationship between exposure to radical social networks and radicalization.

3.3.3.3 Salafism

In scholarly literature, Salafism is often advocated as an ideology that can increase the likelihood of radicalization. Salafism is a movement within Sunni Islam that aims to emulate the traditions of the first three generations of Muslims (Ali, 2015). Salafism strives to cleanse Islam from societal and cultural influences and attributes an important role to Jihad (Amble and Meleagrou-Hitchens, 2014). Andre and Harris-Hogan (2013) studied the radicalization process of Mohamed Merah, the 23-year-old French jihadist who killed several soldiers and civilians in 2012. They found that the Salafist ideology heavily influenced his actions. Likewise, Böckler, Hoffmann and Meloy (2017) used investigation reports and media data to analyze the case of the German Christmas market attacker Anis Amri. They found that his attack was motivated by the Salafist jihadist ideology. These accounts inspired the current study to test the relationship between Salafism and radicalization in Pakistan.

3.4 Research Design and Methods

3.4.1 Participants

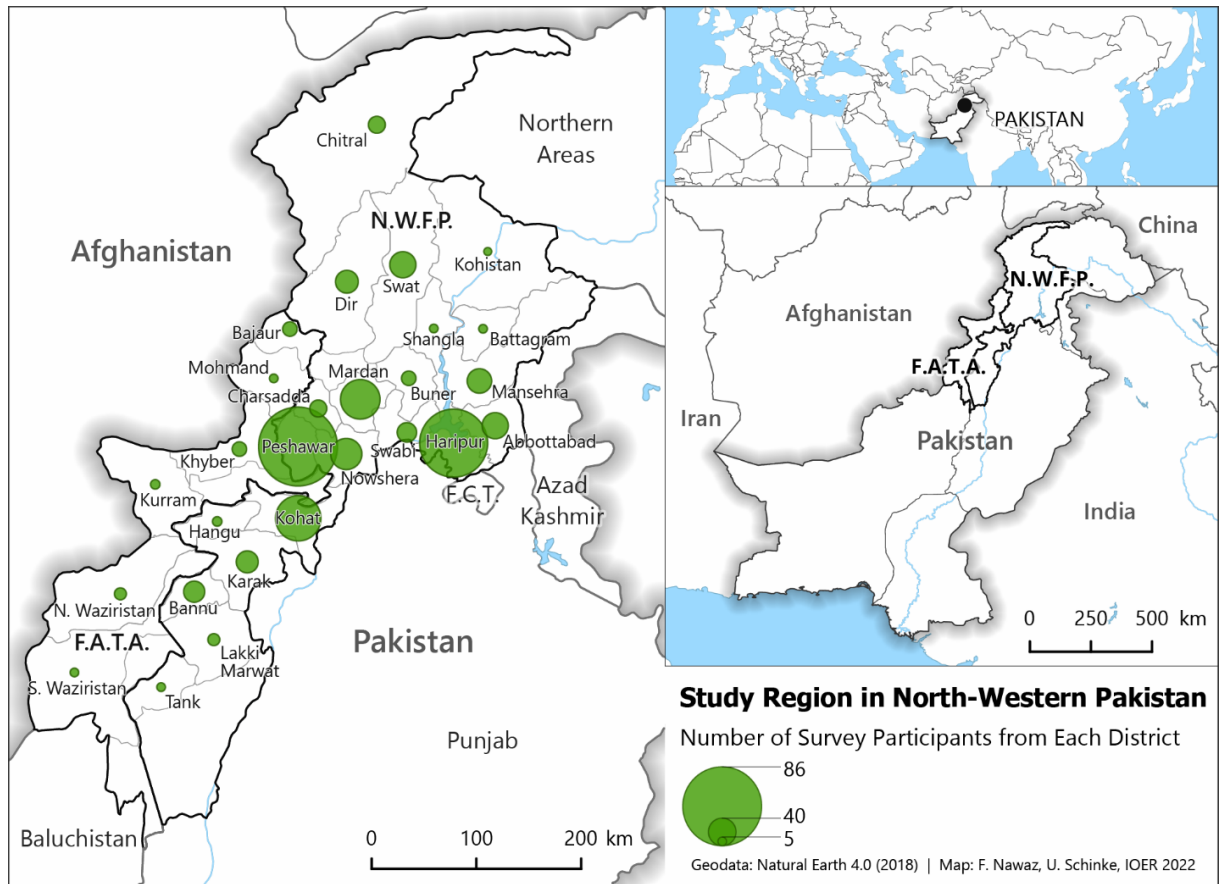
Radicalization in Pakistan is predominantly attributed to the religious, impoverished, illiterate, or Madrassah-educated individuals. This stereotype is reiterated by the press, security experts, and policymakers alike (Delavande and Zafar, 2015). While this could relate to earlier cohorts of extremists, several recent incidents indicate the evolution and transformation of the radicalization landscape in Pakistan (Dawn, 2017). For instance, in 2015, a group of Al-Qaeda-affiliated militants attacked a bus carrying members of the

minority Ismaeli Shia community and killed 43 passengers. The attackers later turned out to be highly educated university graduates (Zahid, 2015). In 2017, Naureen Laghari, a Pakistani medical student, traveled to Syria to join the Islamic State of Iraq and Syria (ISIS). After receiving militant training, she returned to carry out a suicide attack on a local church but was arrested beforehand (Firdous, 2017). In the same year, Mashal Khan, a journalism student, was lynched by fellow students on the university campus over allegations of posting blasphemous content against Islam on his Facebook profile (Singay, 2020). In 2019, Khateeb Hussain, an undergraduate student, fatally stabbed his professor for allegedly making blasphemous remarks against Islam (Imran, 2019). These incidents indicate that the educated youth in Pakistan are increasingly gravitating toward radicalism and the avenues of higher education are seemingly instrumental in this process (Iqbal and Mehmood, 2021). To better understand the factors driving this evolving radical landscape, university students constitute a duly relevant sample. A survey was therefore administered between December 2019 and March 2020 to collect primary data from undergraduate students of 19 universities in the Khyber Pakhtunkhwa province of Pakistan – the region plagued by extremism, violence, and terrorist groups (Yamin and Malik, 2014). The map of the study region is given in Figure 3.1.

Initially, a pen and paper survey was planned. However, the Covid-19 pandemic and the increased militant activities following the US-Taliban peace deal restricted travel to the study region. Therefore, the questionnaire designed for the pen and paper survey was created in Google Forms, and a web link was generated for remote access. Next, using personal contacts, the faculty members teaching in universities of the target region were approached and requested to implement the survey. They shared the web link of the questionnaire with the undergrad students in their respective universities. Verbal consent was obtained from all participants before participation in the survey.

A total of 510 undergraduate students participated in the survey. About half of the sample is female (52%). Only a small fraction (5.3%) of the participants are married and most of them (92%) range between the age of 18 and 23 years. A table containing complete descriptive statistics and survey responses is given in Appendix 3.7.1.

Figure 3.1: Map of the Study Region



3.4.2 Radicalization Measure

Most publications on Pakistan have studied radicalization from a historical perspective and are predominantly descriptive. Hence, they lack a comprehensive empirical measure of radicalization. To the best of the author’s knowledge, only three studies have so far undertaken a rigorous empirical analysis of radicalization in Pakistan.

First, Fair, Malhotra and Shapiro (2012) studied the relationship between religiosity and support for political violence in Pakistan. Second, Blair et al. (2013) assessed the relationship between poverty and support for militant politics in Pakistan. The dependent variable in these studies is based on respondents’ expressed support for Islamist militant organizations. Third, Bélanger et al. (2019) studied the processes underlying ideologically motivated violence in Canada, Spain, Pakistan, and the US. They used a 6-item political violence scale as the dependent variable for all four countries. Although these studies provide important insights, their radicalization measures do not undertake context-specific issues central to the contemporary radicalization landscape in Pakistan. These include blasphemy vigilantism, anti-Ahmadi resentment, domestic military operations, and the US presence in Afghanistan – all potentially pivotal to radicalization and extremist violence in Pakistan. For building a comprehensive radicalization index, this study draws nine items from the survey instrument

of Rink and Sharma (2018), who assessed radicalization in Kenya using only one of their survey items/questions that measured support for radical groups. This choice was inspired by several reasons. First, Rink and Sharma (2018) selected their sample from the Eastleigh district of Kenya, consisting of a large number of Somali immigrants and recruiters of Al-Shabaab – the Somalia-based terrorist group. Such features are also salient in the context of KP due to the presence of Afghan refugees and recruiters of the Afghan and Pakistani Taliban. Second, Rink and Sharma (2018) focused on inter-religious tensions between Kenyan Muslims and Christians to study the determinants of radicalization. Religious tensions between adherents of differing Islamic sects are also one of the major catalysts of radicalization and extremist violence in Pakistan. Third, Rink and Sharma (2018) undertook the much-emphasized approach of jointly testing a combination of psychological, socio-political, and process-oriented factors. Finally, they operationalized and tested the leading explanations of radicalization using primary data from a setting with a considerable degree of religious violence. KP is also facing increasing instances of religious violence in several manifestations, such as suicide attacks, targeted killings, and blasphemy vigilantism. These reasons rendered the survey instrument of Rink and Sharma (2018) a preferred choice for this study.

For the Pakistani context, six additional items are added. The fifteen-item radicalization scale of this study measures the following three aspects: support for militant groups, violent behavioral intentions, and support for persecution/vigilantism under blasphemy allegations.

The respondents' support for militant groups is measured using three questions. Responses to these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. The questions are stated below.

- Question 1: Imagine that a Pakistani Imam says that all Pakistani Muslims should support the Afghan Taliban in their fight against the American army in Afghanistan. How much would you agree to the Imam's demand (support Taliban)?
- Question 2: Imagine that a Muslim person is killed by an American drone strike in Afghanistan or the tribal areas (FATA) of Pakistan. One of his relatives decides to join the Afghan Taliban to take revenge. How much would you agree that he made the right decision (join Taliban)?
- Question 3: In 2007, Pakistan conducted a military operation in Laal Masjid (Red Mosque), during which the head Imam, Maulana Abdur Rashid, died. Afterward, Osama Bin Laden described him as a hero of Islam and declared war against the Pakistan army. To what extent do you agree

that the declaration of Osama Bin Laden is acceptable (support Bin Laden's declaration)?

To measure violent behavioral intentions, eight items are drawn from the survey instrument of Rink and Sharma (2018). First, the respondents were asked whether they had heard the following verse of the Quran.

Question 4: The Quran has ordered that a Muslim should not kill himself. This is what the Quran says (Quran 2:29): "And do not kill yourselves. Indeed, Allah is to you ever merciful." Have you heard about this (Quranic verse)?

To measure perceptions elicited by this verse, three questions were asked. Responses to these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. The questions are stated below.

Question 5: Imagine that a Muslim man has problems with his family. He decides to kill himself. To what extent do you agree that this is acceptable (kill self)?

Question 6: Imagine that a Muslim man is beaten by the Pakistani police. He decides to wear a suicide jacket and attack the police. To what extent do you agree that this is acceptable (attack police)?

Question 7: Imagine that a Muslim man is beaten by the Pakistani police. He decides to place a bomb at the police station. To what extent do you agree that this is acceptable (bomb police station)?

Afterward, a Hadith was presented to elicit and measure perceptions about the use of violence against women and children.

Question 8: The Hadith forbids a Muslim from killing women and children. This is what the Hadith says (Kitab al-Jihad): "Do not kill women, children, the old or the infirm (weak)." Have you heard about this (Hadith)?

Perceptions elicited by this Hadith were measured using three questions. Responses to these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. The questions are stated below.

Question 9: Imagine that a Muslim man has a severe problem with his daughter. He decides to kill her. To what extent do you agree this is acceptable (kill daughter)?

Question 10: Imagine that after an Imam was killed, a Muslim man attacks a bus filled with men, women, and children. To what extent do you agree that this situation is acceptable (attack men, women, children)?

Question 11: Imagine that after an Imam was killed, a Muslim man attacks a bus filled with adult men. To what extent do you agree that this is acceptable (attack adult men)?

To measure support for blasphemy vigilantism and persecution of Ahmadis, four questions are designed specifically for this study. Responses to these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. The questions are stated below.

Question 12: In 2011, the Governor of Punjab (Salman Taseer) was killed by his police bodyguard, Mumtaz Qadri. The killer claimed that it was his religious duty to kill the Governor because he spoke against the blasphemy law. Do you agree that the claims of Mumtaz Qadri are acceptable (kill Governor)?

Question 13: In 2017, Mashal Khan, a student at Abdul Wali Khan University Mardan, was blamed for posting blasphemous content against Islam on Facebook. Rather than handing him over to the police, he was killed by a crowd of people inside his university over these allegations. Do you agree that this situation is acceptable (kill Mashal)?

Question 14: In the blasphemy case against Aasia Bibi, an Imam in Peshawar offered a reward of five lakh rupees to anyone who kills her. To what extent do you agree that this is acceptable (kill Asia Bibi)?

Question 15: Imagine that a Pakistani Imam says that one's faith/belief in Islam allows him to use violence against the Ahmadis. How much would you agree with the Imam's statement (violence against Ahmadis)?

All fifteen items are combined and standardized to create the radicalization index (Cronbach's alpha: .78).

3.5 Results

To test the relationship between the radicalization index and explanatory variables, the following Ordinary Least Squares (OLS) regression is estimated.

$$Radicalization_i = \beta_0 + \beta_1 MICR O_i + \beta_2 MACR O_i + \beta_3 MESO_i + \beta_4 X_i + \varepsilon_i$$

In the above model, *Radicalization_i* is the dependent variable, *MICRO_i* represents the psychological variables, *MACRO_i* represents the sociopolitical variables, *MESO_i* stands for the group/community-related factors, *X_i* is a vector of socio-demographic controls (gender, age, and marital status) and ε_i is the random error component.

To construct the explanatory variables, this study has drawn upon Rink and Sharma (2018) for three reasons. First, the radicalization measure of this study is predominantly based on their survey instrument. Moreover, the study is also following their empirical methodology. To ensure consistency in the overall analytical approach, it is deemed necessary to adapt their survey questions for building the independent variables as well. Second, their methodology offers a viable approach for operationalizing the variables of interest that are otherwise difficult to measure due to the sensitive nature of the topic. Finally, the parallels between the Kenyan and Pakistani study settings, outlined in section 4.2, also made Rink and Sharma (2018) the optimal choice for building the explanatory variables. However, the Salafism variable under the meso-level is designed specifically for this study since it is not studied by Rink and Sharma (2018). Results are given in Table 3.1 (next page).

Table 3.1: Determinants of Radicalization in Pakistan

VARIABLES	(Model 1) Radicalization	(Model 2) Radicalization
<i>Micro-level: Psychological Factors</i>		
Adverse Life Events	-0.071 (0.047)	-0.081* (0.045)
Troubled Social Relations	0.034 (0.029)	0.001 (0.030)
Violence Exposure	-0.007 (0.031)	-0.000 (0.027)
<i>Macro-level: Sociopolitical Factors</i>		
Economic Marginalization	0.166*** (0.032)	0.120*** (0.031)
Political Marginalization	0.037 (0.029)	0.059** (0.027)
<i>Meso-level: Group/Community Related Factors</i>		
Religiosity	-0.006 (0.032)	0.016 (0.031)
Networks	-0.024 (0.045)	-0.017 (0.043)
Salafism		0.258*** (0.032)
<i>Controls</i>		
Gender (0 = Female, 1 = Male)	0.236*** (0.045)	0.248*** (0.042)
Age	0.017 (0.024)	0.012 (0.022)
Marital Status	0.109 (0.096)	0.083 (0.081)
Observations	510	510

Note: Ordinary least squares regressions. Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

3.5.1 Model 1

Model 1 replicates Rink and Sharma (2018) without the religious conversion variable, which is omitted due to the lack of converts in the study region.

3.5.1.1 Micro-level: Psychological Factors

3.5.1.1.1 Adverse Life Events

To test the salience of adverse life events, the ten-item negative catalyst events scale is adapted from Rink and Sharma (2018), which measures the experience of adverse events during the past 12 months. For the Pakistani context, four additional items are added.

First, the respondents were asked whether they experienced the death of a family member or relative (*death*). Second, it was asked whether their parents or relatives lost their job (*job loss*). Third, the respondents were asked whether they were arrested by the police or had problems with the courts (*police and courts*). Fourth, it was asked whether the respondents had stopped talking to their parents (*parents*). Fifth, the respondents were asked whether they experienced the end of a regular and stable friendship (*friendship*). Sixth, it was asked whether any of their friends had left the country (*emigration*). Seventh, the respondents were asked whether someone in their family faced divorce due to marital problems (*divorce*). Eighth, it was asked whether any of their relatives faced a serious illness, injury, or attack (*relatives*). Ninth, the respondents were asked whether they had a serious problem with a close friend, neighbor, or relative (*serious problem*). Finally, it was asked whether their friends or relatives were forced to migrate due to military operations in the region (*migration*). All ten items are combined and standardized to create the adverse life events index (Cronbach's alpha: .62).

Model 1 indicates that adverse life events lack a statistically significant relationship with radicalization. This relates to Bhui, Warfa and Jones (2014), Rink and Sharma (2018) and Groppi (2018), who found adverse life events unrelated to radicalization in England, Kenya, and Italy, respectively.

3.5.1.1.2 Troubled Social Relations

To test the salience of troubled relations, the 3-item troubled social relations scale is adapted from Rink and Sharma (2018). Responses to all the three items were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree.

First, the respondents were asked to indicate the strength of their relationship with their mother (*maternal relationship*). Second, the respondents were asked to indicate the strength of their relationship with their father (*paternal relationship*). Finally, it was asked whether the respondents are pleased with the respect they get from their friends and family

(*respect*). All three items are combined and standardized to generate the troubled social relations (Cronbach's alpha: .57).

Model 1 indicates the lack of a statistically significant relationship between radicalization and the troubled social relations index. This departs from Rink and Sharma (2018) and Jasko, LaFree and Kruglanski (2017), who found troubled relations associated with radicalization in Kenyan and American samples, respectively.

3.5.1.1.3 Violence Exposure

To test the salience of violence exposure, the 2-item violence exposure scale is adapted from Rink and Sharma (2018). For the Pakistani context, one additional item is added. Responses to all the three items were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree.

First, the respondents were asked whether they had seen violence/fighting between Muslims and non-Muslims (*interreligious violence*). Second, it was asked whether the respondents had seen violence/fighting between citizens and the government (*government-citizen violence*). Finally, it was asked whether the respondents had seen violence/fighting between government and terrorists (government-terrorist violence). All three items are combined and standardized to generate the violence exposure index (Cronbach's alpha: .66).

Model 1 indicates the lack of a statistically significant relationship between radicalization and violence exposure. This is in line with Rink and Sharma (2018), who made a similar finding in the Kenyan case. Conversely, it contradicts Pedersen, Vestel and Bakken (2018) and Guerra, Rowell Huesmann and Spindler (2003), who found violence exposure and radicalization related in Norway and the US.

3.5.1.2 Macro-level: Socio-political Factors

3.5.1.2.1 Economic Marginalization

To test the salience of economic marginalization, the 4-item economic marginalization scale is adapted from Rink and Sharma (2018). Three items that asked for employment status, monthly income, and past income were deleted since participants of this study are not employed persons. These are replaced by questions appropriate for the Pakistani case study, thus restricting the final scale to three items. Responses to all the three items were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree.

First, the respondents were asked whether they believe they have a little chance of becoming wealthy in Pakistan (*economic prospects*). Second, respondents were asked to what extent they felt their family is not being treated fairly in the existing economic

situation (*unfair treatment*). Finally, it was asked whether the respondents felt that their family members have to struggle frequently to find good employment due to ethnicity or race (*struggle*). All three items are combined and standardized to create the economic marginalization index (Cronbach's alpha: .48).

Model 1 indicates that economic marginalization has a statistically significant positive relationship with radicalization. This supports Ahmed, Yousaf and Zeb (2018) and Yusuf (2008), who considered economic marginalization an important driver of radicalization in Pakistan. However, this contradicts Rink and Sharma (2018) and Groppi (2017), who found the said variables unrelated in the Kenyan and Italian cases, respectively.

3.5.1.2.2 Political Marginalization

To test the salience of political marginalization, the two-item political marginalization scale is adapted from Rink and Sharma (2018). Responses to both items were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree.

First, it was asked whether the respondents planned to vote in the next election (*vote*). Next, it was asked whether the respondents believe that the Pakistani government represents their interests (*representation*). These two items are combined and standardized to create the political marginalization index (Cronbach's alpha: .18).

Model 1 indicates the lack of a statistically significant relationship between political marginalization and radicalization. This challenges Rathore and Basit (2010), Basit (2015), and Naseer, Amin and Maroof (2019), who considered political marginalization as an important catalyst of radicalization in Pakistan. It thus sides with Rink and Sharma (2018), who found political marginalization and radicalization unrelated in the Kenyan case study.

3.5.1.3 Meso-level: Group/Community-related Factors

3.5.1.3.1 Religiosity

To test the salience of religiosity, the two-item scale is adapted from Rink and Sharma (2018).

First, the respondents were asked to indicate how often they visit their place of worship to offer prayers (*prayer frequency*) on a five-point scale (daily, weekly, monthly, sometimes, and rarely). Second, the participants were asked to choose their preferred identity label (*identity*) from a list of categories (male, female, Muslim, caste/tribe, and Pakistani). These two items are combined and standardized to create the religiosity index (Cronbach's alpha: .03).

Model 1 indicates that religiosity lacks a statistically significant relationship with radicalization. This finding complements Fair, Malhotra and Shapiro (2012), who found religious influence un-related to support for militant groups in Pakistan.

3.5.1.3.2 Networks

To test the salience of networks, the two-item scale is adapted from Rink and Sharma (2018), which asked the respondents whether any of their friends had gone abroad and whether they knew a Somali migrant. For the Pakistani context, four additional items are added.

First, the respondents were asked whether any of their friends or someone else's friend has gone abroad (*friend gone abroad*). Upon affirmation, the respondents were next asked to indicate the country the friend had gone to. This was done to record whether the country was Afghanistan (knows Afghan migrant). In the Kenyan case, Rink and Sharma (2018) assessed the connection with Somalian migrants, which was replaced with Afghanistan for the Pakistani context. Third, it was asked whether the respondents know an Afghan refugee personally (*know Afghan refugee*). Fourth, it was asked whether the respondents have friendship with a Madrassah (religious seminary) student (*madrassah*). Fifth, it was asked whether the respondents are members of the student wing of a political party (*student politics*). Upon affirmation, the respondents were then asked to mention the name of the student wing they are members of. This was done to determine IJT membership (*Islami Jamiat-e-Talaba*). All six items are combined and standardized to create the index of exposure to radical networks (Cronbach's alpha: .37).

Model 1 indicates the lack of a statistically significant relationship between networks and radicalization. This challenges Ahmad (2016), who argued that friendships/networks play an important role in radicalization in Pakistan. It also contests Rink and Sharma (2018), who found networks and radicalization related in a Kenyan sample.

3.5.1.4 Controls

Among the socio-demographic controls, gender exhibits a statistically significant positive relationship with radicalization, indicating that men are more likely to radicalize.

3.5.2 Model 2

To suffice religious conversion, Model 1 is re-estimated by adding Salafism. Since Salafism rejects most interpretations of Islam and advocates a physical/militarized struggle to purify Islam, it arguably entails a departure from mainstream Islam. This is evident from the condemnation of the Salafist jihadist groups such as the Taliban, Al-Qaeda, and ISIS by Muslim scholars on religious grounds (Dash, 2008; Schmid, 2014; Sing, 2016).

To test the salience of Salafism, a 3-item scale is devised for this study using insights from the relevant literature and discussions with local academics. Responses to all the three items were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree.

First, the respondents were asked to indicate the degree to which they agreed that the existing system of their country is based on the true spirit of Islam (*country's system*). Second, the respondents were asked to indicate the degree to which they believed that Jihad is necessary for reforming the country's existing system according to the true spirit of Islam (*Jihad*). Finally, the respondents were asked to indicate the degree to which they believed that the Taliban in Afghanistan are doing a fair struggle to establish an Islamic system in its true form (*support for Taliban*). All three items are combined and standardized to create the Salafism index (Cronbach's alpha: .51).

Model 2 depicts a statistically significant positive relationship between Salafism and radicalization. This supports Siddiq (2009) and Alvi (2014), who considered Salafism an important inspiration for jihadism in Pakistan.

The addition of Salafism has a considerable impact on the model. For instance, among micro-level psychological variables, adverse life events now have a statistically significant negative relationship with radicalization. All else remaining constant, one-unit change in adverse life events index decreases the radicalization index by 0.08 points. Moreover, among macro-level socio-political factors, political marginalization also demonstrates a statistically significant positive relationship with radicalization. A one-unit change in the political marginalization index increases the radicalization index by 0.06 units, all else remaining constant.

3.5.3 Interactions

Table 1 indicates that several variables in the main model (Model 2) are statistically insignificant. To test whether these variables exhibit conditional relationships, interaction terms are added to the main model. Results are reported in Table 3.2 (next page).

Table 3.2: Interaction Terms

VARIABLES	(Model 3) Radicalization	(Model 4) Radicalization	(Model 5) Radicalization	(Model 6) Radicalization
<i>Micro-level: Psychological Factors</i>				
Adverse Life Events	-0.078* (0.044)	-0.082* (0.045)	-0.091** (0.044)	-0.089** (0.044)
Troubled Social Relations	0.011 (0.027)	-0.004 (0.030)	0.003 (0.030)	-0.000 (0.030)
Violence Exposure	-0.002 (0.026)	-0.069** (0.027)	0.002 (0.027)	0.005 (0.027)
<i>Macro-level: Sociopolitical Factors</i>				
Economic Marginalization	0.127*** (0.031)	0.117*** (0.031)	0.128*** (0.031)	0.115*** (0.030)
Political Marginalization	0.051* (0.027)	0.057** (0.027)	0.059** (0.027)	0.058** (0.027)
<i>Meso-level: Group/Community Related Factors</i>				
Religiosity	0.014 (0.031)	0.012 (0.031)	-0.003 (0.029)	0.018 (0.030)
Networks	-0.017 (0.043)	-0.011 (0.043)	-0.014 (0.042)	-0.042 (0.041)
Salafism	0.253*** (0.032)	0.262*** (0.031)	0.258*** (0.031)	0.262*** (0.031)
<i>Controls</i>				
Gender (0 = Female, 1 = Male)	0.242*** (0.042)	0.248*** (0.042)	0.238*** (0.042)	0.255*** (0.042)
Age	0.013 (0.022)	0.010 (0.022)	0.018 (0.022)	0.015 (0.022)
Marital Status	0.103 (0.081)	0.067 (0.086)	0.082 (0.082)	0.089 (0.081)
<i>Interactions</i>				
Troubled Social Relations*Salafism	0.094** (0.043)			
Violence Exposure*Gender		0.137*** (0.051)		
Religiosity*Salafism			-0.128*** (0.042)	
Networks*Adverse Life Events				0.151* (0.081)
Observations	510	510	510	510

Ordinary least squares regressions. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

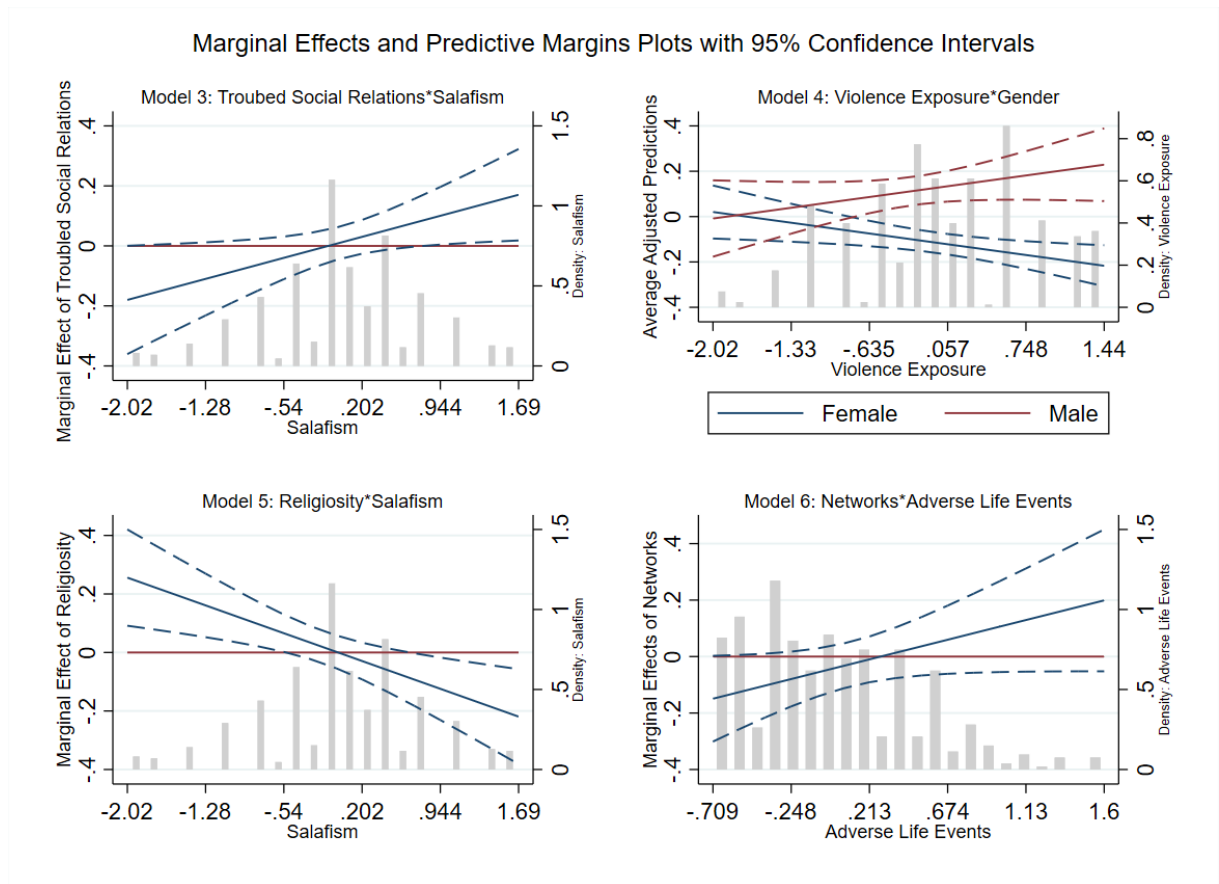
In the main model, the unconditional effect of troubled social relations on radicalization is statistically insignificant. It is hypothesized that Salafism could condition this relationship since troubled relations may boost the appeal of polarizing ideologies that help externalize personal problems and sanction extreme measures for venting out frustrations (Nesser, 2012). To test this hypothesis, an interaction term involving the product of troubled social relations and Salafism is added in Model 3. The statistically significant positive coefficient of this interaction term supports the hypothesis. To better understand how troubled social relations vary across the observed range of the conditioning variable (Salafism), the marginal effects plot is generated and presented in Figure 3.2. It can be observed that for high degrees of Salafism, troubled social relations have a positive effect on radicalization.

Model 2 shows that violence exposure on its own is also statistically insignificant. It is hypothesized that violence exposure exerts a differential impact across genders and can spur radicalization more in men than women. This hypothesis is tested by adding the interaction of violence exposure and gender in Model 4. The statistically significant positive coefficient of this interaction term supports the hypothesis. To better understand the differential impact of violence exposure, average adjusted predictions for both genders are plotted across the range of violence exposure (Figure 3.2). It can be seen in the plot that an increase in violence exposure has an amplifying effect on radicalization in men. Conversely, violence exposure has a reductive impact on radicalization in women.

In the main model, the unconditional effect of religiosity is statistically insignificant. It is hypothesized that instead of religiosity per se, specific religious ideologies, such as Salafism, can better explain radicalization. This is tested by adding the interaction term involving the combination of religiosity and Salafism in Model 5. Results indicate that this interaction term has a statistically significant negative relationship with radicalization, seemingly due to the stronger effects of religiosity. This relates to Clingingsmith, Khwaja and Kremer (2009), who found religiosity associated with greater tolerance and peaceful attitudes among Pakistani individuals. The marginal effects plot for Model 5 shows that religiosity amplifies radicalization at lower values of Salafism. However, this amplifying effect declines as Salafism increases.

In Model 2, the unconditional effect of the networks variable on radicalization is statistically insignificant. It is hypothesized that this relationship could be conditioned by adverse life events, which may boost the appeal of radical networks that cater to the needs for refuge and socialization. This is tested by adding the interaction term involving the combination of networks and adverse life events in Model 6. The statistically significant positive coefficient of the interaction term supports the hypothesis. However, the analysis of marginal effects illustrated in Figure 3.2 shows that the effect is insignificant in the relevant range of the conditioning variable.

Figure 3.2: Marginal Effects



3.6 Discussion and Conclusion

This study analyzes a diverse set of factors for identifying the influential drivers of radicalization in Pakistan. Results indicate that radicalization is predicted by a combination of micro, macro, meso, and socio-demographic factors. Specifically, radicalization in Pakistan is associated with the individual-level experience of adverse life events, socio-political grievances such as economic and political marginalization, group or community influences such as Salafism, and socio-demographic characteristics such as gender. This contests Rink and Sharma (2018) and Groppi (2018), who found radicalization to be unassociated with socio-demographic characteristics and macro-level grievances. Nevertheless, it supports Schmid (2013), who emphasized the combination of micro, macro, and meso factors as a promising route for understanding radicalization. Apart from this, the following takeaways from the findings merit discussion.

First, the study detects no relationship between religiosity and radicalization. This contests several studies that considered religious influence to be crucial to radicalization in Pakistan (e.g., Zaman, 1998; Noor and Hussain, 2010; Khan and Kiran, 2012; Aziz, 2015; Haque, 2014).

It thus sides with Fair, Malhotra and Shapiro (2012), who found religiosity to be unrelated to support for political violence in Pakistan. Moreover, this study finds Salafism as a significant predictor of radicalization. This implies that instead of religiosity per se, specific religious ideologies can help us better understand the religion-radicalization relationship.

Second, this study finds economic marginalization as a potent predictor of radicalization. This contests numerous studies that previously found economic variables unrelated to radicalization (e.g., Blair et al. 2013; Bhui, Warfa and Jones, 2014; Rink and Sharma, 2018; Groppi 2018). This challenges the stereotype that largely renders the state-led Islamization process, fueled particularly during the anti-communist 'jihad' of the 1980s, as the leading explanation of radicalization in Pakistan (e.g., Karmon, 2009; Khan and Kiran, 2012; Tanoli, 2018). It thus signifies the transformation of the radicalization landscape that manifests economic factors as relevant catalysts.

Third, several statistically insignificant variables show a significant association with radicalization after being combined with their potential moderators. The statistical significance of the interaction terms indicates the existence of a mutually constitutive relationship between variables from different levels. This supports those scholars who emphasize that radicalization is a complex process that is driven by the interaction of many different factors (e.g., Kundnani 2012; Allan et al. 2015; Süß and Noor Baheige Aakhunzzada 2019).

Fourth, the radicalization index shows that a considerable number of respondents support the Afghan Taliban and endorse violence against the alleged blasphemers of Islam. It lends credence to the concerns of the local law enforcement organizations that consider universities as the new breeding grounds of radicalization in Pakistan (Dawn, 2017). During the 1980s, Pakistan radically Islamized the educational curriculum to create religiously inspired antagonism for securing recruitment for the anti-Soviet 'jihad' in Afghanistan (Awan, 2012). Without any reversal, the curriculum seemingly continues to facilitate the creation of the 'other', which sanctions extreme measures against differing faiths or sects (Lall, 2008).

Finally, the respondents show a considerable endorsement of violence against Ahmadis and vigilantism in blasphemy cases. This indicates that the local sectarian grievances currently constitute significant triggers of religious radicalization in Pakistan.

For future research, this study suggests three possible directions. Most survey-based papers on radicalization study individual perceptions to assess the extent to which they endorse radical beliefs, statements, or acts. The respondents for such study designs are mostly selected from a single geographical location, such as a district or a city (Blair *et al.*, 2013). This does not account for the role of the permissive conditions that vary across regions

and exert a differential impact on the perceptions of individuals. To better link the context to the individual, future studies should adopt research designs that could assess how the regional contextual factors moderate radical perceptions. Second, most empirical studies on the determinants of radicalization assume a linear relationship between the dependent and explanatory variables. To better understand the phenomenon, future studies should assess non-linearities in the relationship between radicalization and its potential determinants. Finally, to enhance understanding of the phenomenon, future research may extend this research design to study the drivers of radicalization in other conflict settings.

3.7 Appendix

3.7.1 Descriptive Statistics and Survey Responses

Table 3.3: Descriptive Statistics and Survey Responses

Variables	Frequency	Percent	Cumulative	Mean	Std. Dev.	Min	Max
AGE (YEARS)				2.202	.898	1	5
18 – 19	117	22.94	22.94				
20 – 21	216	42.35	65.29				
22 – 23	138	27.06	92.35				
24 – 25	35	6.86	99.22				
26 and above	4	0.78	100.00				
GENDER				.5	.5	0	1
Male	244	47.48	47.48				
Female	266	52.16	100.00				
MARITAL STATUS				.053	.224	0	1
Unmarried	483	94.71	94.71				
Married	27	5.29	100.00				
RADICALIZATION				0	.496	-1.027	2.234
<i>Support Taliban</i>							
Strongly Disagree	61	11.96	11.96				
Disagree	99	19.41	31.37				
Undecided	152	29.80	61.18				
Agree	123	24.12	85.29				
Strongly Agree	75	14.71	100.00				
<i>Join Taliban</i>							
Strongly Disagree	65	12.75	12.75				
Disagree	151	29.61	42.35				

Undecided	123	24.12	66.47				
Agree	112	21.96	88.43				
Strongly Agree	59	11.57	100.00				
<i>Support Bin Laden's Declaration</i>							
Strongly Disagree	76	14.90	14.90				
Disagree	123	24.12	39.02				
Undecided	193	37.84	76.86				
Agree	83	16.27	93.14				
Strongly Agree	35	6.86	100.00				
<i>Quranic verse</i>							
No	40	7.84	7.84				
Yes	470	92.16	100.00				
<i>Kill Self</i>							
Strongly Disagree	364	71.37	71.37				
Disagree	115	22.55	93.92				
Undecided	16	3.14	97.06				
Agree	11	2.16	99.22				
Strongly Agree	4	0.78	100.00				
<i>Attack Police</i>							
Strongly Disagree	283	55.49	55.49				
Disagree	157	30.78	86.27				
Undecided	51	10.00	96.27				
Agree	11	2.16	98.43				
Strongly Agree	8	1.57	100.00				
<i>Bomb Police Station</i>							
Strongly Disagree	313	61.37	61.37				
Disagree	150	29.41	90.78				
Undecided	32	6.27	97.06				
Agree	8	1.57	98.63				
Strongly Agree	7	1.37	100.00				
<i>Hadith</i>							
No	56	10.98	10.98				

Yes	454	89.02	100.00				
<i>Kill Daughter</i>							
Strongly Disagree	350	68.63	68.63				
Disagree	109	21.37	90.00				
Undecided	37	7.25	97.25				
Agree	6	1.18	98.43				
Strongly Agree	8	1.57	100.00				
<i>Attack Men, Women & Children</i>							
Strongly Disagree	332	65.10	65.10				
Disagree	123	24.12	89.22				
Undecided	48	9.41	98.63				
Agree	4	0.78	99.41				
Strongly Agree	3	0.59	100.00				
<i>Attack Adult Men</i>							
Strongly Disagree	286	56.08	56.08				
Disagree	159	31.18	87.25				
Undecided	52	10.20	97.45				
Agree	5	0.98	98.43				
Strongly Agree	8	1.57	100.00				
<i>Kill Governor</i>							
Strongly Disagree	50	9.80	9.80				
Disagree	88	17.25	27.06				
Undecided	153	30.00	57.06				
Agree	109	21.37	78.43				
Strongly Agree	110	21.57	100.00				
<i>Kill Mashal</i>							
Strongly Disagree	177	34.71	34.71				
Disagree	135	26.47	61.18				
Undecided	106	20.78	81.96				
Agree	59	11.57	93.53				
Strongly Agree	33	6.47	100.00				
<i>Kill Asia Bibi</i>							

Strongly Disagree	92	18.04	18.04				
Disagree	101	19.80	37.84				
Undecided	166	32.55	70.39				
Agree	84	16.47	86.86				
Strongly Agree	67	13.14	100.00				
<i>Violence Against Ahmadis</i>							
Strongly Disagree	66	12.94	12.94				
Disagree	89	17.45	30.39				
Undecided	153	30.00	60.39				
Agree	118	23.14	83.53				
Strongly Agree	84	16.47	100.00				
ADVERSE LIFE EVENTS				0	.5	-.7	1.6
<i>Death</i>							
No	200	39.22	39.22				
Yes	310	60.78	100.00				
<i>Job Loss</i>							
No	278	54.51	54.51				
Yes	232	45.49	100.00				
<i>Police and Courts</i>							
No	436	85.49	85.49				
Yes	74	14.51	100.00				
<i>Parents</i>							
No	431	84.51	84.51				
Yes	79	15.49	100.00				
<i>Friendship</i>							
No	340	66.67	66.67				
Yes	170	33.33	100.00				
<i>Emigration</i>							
No	371	72.75	72.75				
Yes	139	27.25	100.00				
<i>Divorce</i>							
No	416	81.57	81.57				
Yes	94	18.43	100.00				
<i>Relatives</i>							

No	273	53.53	53.53				
Yes	237	46.47	100.00				
<i>Serious Problem</i>							
No	298	58.43	58.43				
Yes	212	41.57	100.00				
<i>Migration</i>							
No	399	78.24	78.24				
Yes	111	21.76	100.00				
TROUBLED SOCIAL RELATIONS				0	.7	-3	.7
<i>Maternal Relationship</i>							
Strongly Disagree	1	0.20	0.20				
Disagree	12	2.35	2.55				
Undecided	21	4.12	6.67				
Agree	113	22.16	28.82				
Strongly Agree	363	71.18	100.00				
<i>Paternal Relationship</i>							
Strongly Disagree	17	3.33	3.33				
Disagree	30	5.88	9.22				
Undecided	33	6.47	15.69				
Agree	139	27.25	42.94				
Strongly Agree	291	57.06	100.00				
<i>Respect</i>							
Strongly Disagree	1	0.20	0.20				
Disagree	17	3.33	3.53				
Undecided	38	7.45	10.98				
Agree	215	42.16	53.14				
Strongly Agree	239	46.86	100.00				
VIOLENCE EXPOSURE				0	.8	-2	1.4
<i>Interreligious Violence</i>							
Strongly Disagree	53	10.39	10.39				
Disagree	152	29.80	40.20				
Undecided	91	17.84	58.04				

Agree	147	28.82	86.86				
Strongly Agree	67	13.14	100.00				
<i>Government-Citizen Violence</i>							
Strongly Disagree	17	3.33	3.33				
Disagree	90	17.65	20.98				
Undecided	95	18.63	39.61				
Agree	198	38.82	78.43				
Strongly Agree	110	21.57	100.00				
<i>Government-Terrorist Violence</i>							
Strongly Disagree	28	5.49	5.49				
Disagree	102	20.00	25.49				
Undecided	124	24.31	49.80				
Agree	174	34.12	83.92				
Strongly Agree	82	16.08	100.00				
ECONOMIC MARGINALIZATION				0	.703	-1.768	1.634
<i>Economic Prospects</i>							
Strongly Disagree	42	8.24	8.24				
Disagree	98	19.22	27.45				
Undecided	63	12.35	39.80				
Agree	211	41.37	81.18				
Strongly Agree	96	18.82	100.00				
<i>Unfair Treatment</i>							
Strongly Disagree	43	8.43	8.43				
Disagree	156	30.59	39.02				
Undecided	116	22.75	61.76				
Agree	166	32.55	94.31				
Strongly Agree	29	5.69	100.00				
<i>Struggle</i>							
Strongly Disagree	72	14.12	14.12				
Disagree	160	31.37	45.49				
Undecided	93	18.24	63.73				
Agree	141	27.65	91.37				

Strongly Agree	44	8.63	100.00				
POLITICAL MARGINALIZATION				0	.743	-1.535	1.769
<i>Vote</i>							
Strongly Disagree	53	10.39	10.39				
Disagree	53	10.39	20.78				
Undecided	67	13.14	33.92				
Agree	163	31.96	65.88				
Strongly Agree	174	34.12	100.00				
<i>Representation</i>							
Strongly Disagree	29	5.69	5.69				
Disagree	96	18.82	24.51				
Undecided	146	28.63	53.14				
Agree	158	30.98	84.12				
Strongly Agree	81	15.88	100.00				
RELIGIOSITY				0	.7	-1.3	2.7
<i>Prayer Frequency</i>							
Daily	395	77.45	77.45				
Weekly	37	7.25	84.71				
Monthly	12	2.35	87.06				
Sometimes	21	4.12	91.18				
Rarely	45	8.82	100.00				
<i>Identity</i>							
Male	17	3.33	3.33				
Female	9	1.76	5.10				
Muslim	404	79.22	84.31				
Caste/Tribe	13	2.55	86.86				
Pakistani	67	13.14	100.00				
NETWORKS				0	.5	-3	1.5
<i>Friend Gone Abroad</i>							
No	189	37.06	37.06				
Yes	321	62.94	100.00				
<i>Knows Afghan Migrant</i>							
No	508	99.61	99.61				

Yes	2	0.39	100.00				
<i>Knows Afghan Refugee</i>							
No	274	53.73	53.73				
Yes	236	46.27	100.00				
<i>Madrassah</i>							
No	183	35.88	35.88				
Yes	327	64.12	100.00				
<i>Student Politics</i>							
No	433	84.90	84.90				
Yes	77	15.10	100.00				
Islami Jamiat-e-Talaba							
No	480	94.12	94.12				
Yes	30	5.88	100.00				
SALAFISM				0	.7	-2	1.7
<i>Country's System</i>							
Strongly Disagree	85	16.67	16.67				
Disagree	132	25.88	42.55				
Undecided	137	26.86	69.41				
Agree	126	24.71	94.12				
Strongly Agree	30	5.88	100.00				
<i>Jihad</i>							
Strongly Disagree	14	2.75	2.75				
Disagree	52	10.20	12.94				
Undecided	150	29.41	42.35				
Agree	178	34.90	77.25				
Strongly Agree	116	22.75	100.00				
<i>Support for Taliban</i>							
Strongly Disagree	44	8.63	8.63				
Disagree	82	16.08	24.71				
Undecided	225	44.12	68.82				
Agree	109	21.37	90.20				
Strongly Agree	50	9.80	100.00				

3.7.2 Questionnaire/Survey Instrument

Dear Participant,

This survey will be used in a university research project purely for academic purposes. Your participation is completely voluntary, and you will not be asked for any personal information like your name or address, etc. Please note that the responses that you provide will not be shared with anyone else. We will be thankful for your participation.

SOCIODEMOGRAPHIC CONTROLS

Variable	Statement
Age	What is your age in years?
1	18 – 19
2	20 – 21
3	22 – 23
4	24 – 25
5	26 and above
Gender	What is your gender?
0	Female
1	Male
Marital Status	What is your marital status?
0	Unmarried
1	Married

RADICALIZATION

Instruction: For each of the statements below, please indicate how much you agree or disagree by choosing the appropriate option using (✓).

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	Imagine that a Pakistani Imam says that all Pakistani Muslims should support the Afghan Taliban in their fight against the American army in Afghanistan. How much would you agree to the Imam's demand?					
2	Imagine that a Muslim person is killed by an American drone strike in Afghanistan or the tribal areas (FATA) of Pakistan. One of his relatives decides to join the Afghan Taliban to take revenge. How much would you agree that he made the right decision?					
3	In 2007, Pakistan conducted a military operation in Laal Masjid (Red Mosque), during which the head Imam, Maulana Abdur Rashid, died. Afterward, Osama Bin Laden described him as a hero of Islam and declared war against the Pakistan army. To what extent do you agree that the declaration of Osama Bin Laden is acceptable?					
4	The Quran has ordered that a Muslim should not kill himself. This is what the Quran says (Quran 2:29): "And do not kill yourselves. Indeed, Allah is to you ever merciful." Have you heard about this?	Yes (11)	No (0)			
5	Imagine that a Muslim man has problems with his family. He decides to kill himself. To what extent do you agree that this is acceptable?					
6	Imagine that a Muslim man is beaten by the Pakistani police. He decides to wear a suicide jacket and attack the police. To					

	what extent do you agree that this is acceptable?					
7	Imagine that a Muslim man is beaten by the Pakistani police. He decides to place a bomb at the police station. To what extent do you agree that this is acceptable?					
8	The Hadith forbids a Muslim from killing women and children. This is what the Hadith says (Kitab al-Jihad): "Do not kill women, children, the old or the infirm (weak)." Have you heard about this?	Yes (1)	No (0)			
9	Imagine that a Muslim man has a severe problem with his daughter. He decides to kill her. To what extent do you agree this is acceptable?					
10	Imagine that after an Imam was killed, a Muslim man attacks a bus filled with men, women, and children. To what extent do you agree that this situation is acceptable?					
11	Imagine that after an Imam was killed, a Muslim man attacks a bus filled with adult men. To what extent do you agree that this is acceptable?					
12	In 2011, the Governor of Punjab (Salman Taseer) was killed by his police bodyguard, Mumtaz Qadri. The killer claimed that it was his religious duty to kill the Governor because he spoke against the blasphemy law. Do you agree that the claims of Mumtaz Qadri are acceptable?					

13	In 2017, Mashal Khan, a student at Abdul Wali Khan University Mardan, was blamed for posting blasphemous content against Islam on Facebook. Rather than handing him over to the police, he was killed by a crowd of people inside his university over these allegations. Do you agree that this situation is acceptable?					
14	In the blasphemy case against Aasia Bibi, an Imam in Peshawar offered a reward of five lakh rupees to anyone who kills her. To what extent do you agree that this is acceptable?					
15	Imagine that a Pakistani Imam says that one's faith/belief in Islam allows him to use violence against the Ahmadis. How much would you agree with the Imam's statement?					

MICRO FACTORS

Instruction: The statements given below relate to your perception regarding yourself in various situations. You are requested to tell us how much you agree or disagree by choosing the appropriate option using (✓).

Adverse Life Events/Negative Catalyst Events

Over the past 12 months, have you or someone in my family faced one or more of the following problems?

0=No

1=Yes

S. No	Statement	No	Yes
1	Death of your close friend or family member/relative.		
2	Loss of job/unemployment faced by your parents or relatives.		
3	Arrest by police or problems with courts.		

4	You stopped talking to your parents.		
5	The end of a regular and stable friendship.		
6	A friend of yours left the country.		
7	A divorce between people in your family due to problems in marriage.		
8	Serious illness, injury, or attack on any of your relatives.		
9	A serious problem with a close friend, neighbor, or relative.		
10	During the military operations in the tribal areas of Pakistan (FATA), any of your friends or relatives had to migrate.		

Troubled Social Relations

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I have a strong relationship with my mother.					
2	I have a strong relationship with my father.					
3	I am pleased with the respect that I get from friends and family.					

Violence Exposure

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I have seen violence between Muslims and Non-Muslims.					

2	I have seen violence between Pakistani citizens and the government.					
3	I have seen violence between the government and terrorists/militants.					

MACRO FACTORS

Instruction: The statements given below relate to your perception regarding yourself in various situations. You are requested to tell us how much you agree or disagree by choosing the appropriate option using (✓).

Economic Marginalization

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I believe I have a little chance of becoming wealthy in Pakistan.					
2	My family is not fairly treated in the existing economic situation.					
3	My family members have to struggle frequently for finding good employment due to our ethnicity/caste (e.g. Pashtun, Punjabi, Sindhi, Baluch, etc.).					

Political Marginalization

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I plan to vote in the next election.					

2	The Pakistani government do not represent my interests.					
---	---	--	--	--	--	--

MESO FACTORS

Religiosity(Rink and Sharma, 2018a)

1. If you had to choose one label to describe yourself from the following options, which would it be?

- 1) Male
- 2) Female
- 3) Muslim
- 4) Caste/Tribe
- 5) Pakistani

2. How often do you visit your place of worship to offer prayers?

- 1) Daily
- 2) Weekly
- 3) Monthly
- 4) Sometimes
- 5) Rarely

Networks

1. Do you know anyone – a friend or someone else’s friend – who has gone abroad?

- 0. No
- 1. Yes

2. If yes, where? _____

3. Do you know any Afghan refugees personally?

- 0. No
- 1. Yes

4. Do you have a friendship with anyone who studies in a Madrassah?

- 0. No
- 1. Yes

5. Are you a member of a student wing of any political party in your university?

- 0. No
- 1. Yes

6. If yes, which party or student wing? _____

Salafism

Instruction: The statements given below relate to your perception regarding yourself in various situations. You are requested to tell us how much you agree or disagree by choosing the appropriate option using (✓).

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	The existing system of my country is based on the true spirit of Islam.					
2	Jihad is mandatory for reforming the existing system according to the true spirit of Islam.					
3	Taliban in Afghanistan are doing a fair struggle for establishing an Islamic system in its true form.					

4 SOCIOECONOMIC FACTORS AND RADICALIZATION IN PAKISTAN: A NON-LINEAR EXPLORATION

Socioeconomic hardships are often advocated as the drivers of radicalization, but the existing research shows mixed evidence for this relationship. This study argues that socioeconomic hardships should increase the likelihood of radicalization only for sufficiently religious people, thereby implying a non-linear relationship. The study suggests that as a result of the lower opportunity costs of extreme acts during socioeconomic hardships, the likelihood of committing or supporting such acts for obtaining religiously inspired mental rewards should be the highest for the economically disadvantaged, religious individuals. The study tests this hypothesis through the non-linear threshold regression method developed by Hansen (2000), using survey data from the Khyber Pakhtunkhwa province of Pakistan. Results indicate that radicalization has a statistically significant positive relationship with indicators of the individual level socioeconomic conditions such as the perceptions of poor economic prospects, individual relative deprivation, injustice, and inequality only above the religiosity threshold.

Keywords: Radicalization, Threshold, Non-Linearity

4.1 Introduction

Radicalization is a threat to the security and stability of nations. Given the global rise in radicalization, it is imperative to ask which factors drive this process. The existing literature attribute radicalization to a diverse mix of psychological, economic, social, and political factors. Among these, economic factors receive considerably large attention from academics, policymakers, and journalists. The presumed link between economic factors and terrorism also plays a major role in international security and counter-terrorism policies. However, the empirical analysis of this relationship reveals a complicated picture.

Studies investigating the relationship between socioeconomic factors and radicalization can be grouped into three categories. The first strand detects no relationship between radicalization and socioeconomic factors such as poverty, economic disparity, inequality, discrimination, and economic marginalization (e.g., Blair et al., 2013; Bhui, Warfa and Jones, 2014; Rink and Sharma, 2018; Groppi 2018). The second strand finds that socioeconomic hardships such as economic marginalization, inequality, exclusion, and deprivation are instrumental in catalyzing radicalization (e.g., Ceder, Weidmann and Gleditsch, 2011; Lindekilde, Bertelsen and Stohl, 2016; Bäck et al., 2018; Macdougall et al., 2018; Holla, 2020). The third strand finds that instead of the poor and marginalized, individuals from affluent backgrounds are more likely to radicalize and commit extremist violence (e.g., Blair et al., 2013; Bhui, Warfa and Jones, 2014; Delia Deckard and Jacobson, 2015).

The existing literature tests a wide range of economic variables as plausible determinants of radicalization. Yet, there is no real consensus on the relationship between socioeconomic factors and radicalization. Most empirical studies on the phenomenon assume a linear relationship between radicalization and socioeconomic factors (Franc and Pavlović, 2021). However, the linearity assumption may not hold up in all cases (Arin *et al.*, 2021). For instance, Freytag *et al.* (2011) studied the relationship between real GDP per capita and terrorism in 110 countries. They found that up to a certain level, an increase in per capita GDP results in more terrorism since higher income enhances the state's repressive capacity, allowing only for clandestine (terrorist) activity instead of open rebellion. Afterward, more per capita income means less terrorism due to a rise in the opportunity cost of terrorism. Such 'switch points' could also be salient in the relationship between individual-level socioeconomic factors and the individual decision to support or commit terrorist acts. However, most studies test this relationship through linear models using data on terrorist activity and aggregate socioeconomic indicators. Ignoring the potential switch points restricts studies to only one coefficient for the explanatory variable when there should be separate coefficients delimited by the range of the switch point (Arin *et al.*, 2021).

This study proposes a non-linear mechanism for the relationship between radicalization and the individual-level perceptions of socioeconomic conditions/prospects based on opportunity costs and the mental rewards of extreme acts. Socioeconomic hardships (or the perception of these) reduce the opportunity costs of extreme acts, making it attractive to gain mental rewards by supporting or participating in such acts (Freytag *et al.*, 2011). However, subscription to mental rewards of extreme acts may depend upon the degree of personal religiosity since religion bestows ideology and purpose. This is to say that a certain level or threshold of religiosity must be reached to perceive extreme acts as avenues of mental rewards during socioeconomic hardships. In other words, this study hypothesizes that socioeconomic hardships should drive radicalization only in sufficiently religious people.

To test the above hypothesis, this study uses the non-linear threshold regression method developed by Hansen (2000) that splits the data, and searches for the existence of multiple regimes. Hansen's (2000) method endogenously detects the presence of the possible switch points from the data when their existence is not known a priori. It further allows the coefficients to vary across regimes that lay below or above the switch points or threshold values. Several studies have used this method to investigate the existence of switch points in the relationship between different economic variables. Some examples include investigating the relationship between trade and economic growth using trade openness as a threshold variable (Papageorgiou, 2002), the relationship between economic growth and financial development using institutional quality as a threshold variable (Law, Azman-

Saini and Ibrahim, 2013), and the relationship between foreign direct investment and economic growth using financial market development as a threshold variable (Azman-Saini, Law and Ahmad, 2010). Drawing on these, this study splits the data into different regimes or classes using religiosity as a threshold variable and estimates the effect of the varying degrees of religiosity on the relationship between socioeconomic factors and radicalization⁵.

This study contributes to the literature in two ways. First, it uses novel survey data from the Khyber Pakhtunkhwa (KP) province of Pakistan. KP is one of the most marginalized and economically disadvantaged regions of Pakistan. It has also been the key recruitment ground for several Islamist militant groups such as the Afghan Taliban, Al-Qaeda, and the Pakistani Taliban. Moreover, it is currently experiencing a surge in various types of religious violence, such as suicide attacks, targeted killings of religious minorities, sectarian clashes, and blasphemy vigilantism. Given these factors, this study provides empirical evidence from a region that exhibits a unique combination of socioeconomic backwardness, militant groups motivated by supreme values, and a high degree of religious violence. Second, it demonstrates the existence of a non-linear relationship between socioeconomic factors and radicalization using Hansen's (2000) methodology. For instance, the study finds a statistically significant positive relationship between radicalization and the individual perceptions of economic prospects, relative deprivation, injustice, and inequality only above the religiosity threshold. This supports the hypothesis that socioeconomic hardships drive radicalization only in sufficiently religious people. This suggests that apart from security-centric approaches, radicalization can also be deterred by increasing the opportunity costs of political violence through socioeconomic improvements.

4.2 Socioeconomic Marginalization & Radicalization in Khyber

Pakhtunkhwa: A Brief Overview

Pakistan faces serious challenges posed by radicalization and religiously inspired extremism. This is evident from the scores of terrorism incidents faced over the past two decades. For instance, from 9/11 to date, Pakistan suffered 29,721 terrorism incidents, including 597 suicide attacks, and received 65,271 fatalities. However, these losses are disproportionately spread across Pakistan, with KP, which houses 17% of the country's population, receiving the biggest brunt (*Pakistan Bureau of Statistics*, 2017). Out of the total terrorism incidents,

⁵ Before applying the method developed by Hansen (2000), squared terms were added in the linear regression which confirmed the existence of inflection points. However, squared terms capture only one type of switch point (i.e., inflection points), therefore Hansen (2000) is preferred since it can detect more than one type of unknown switch points. The results of the regression with squared terms is given in Appendix 7.

13,265 (44.5%) occurred in KP, coupled with 362 (60.6%) of all suicide attacks and 45,975 (70.4%) of all fatalities (*South Asia Terrorism Portal, 2022*).

The uneven impact of terrorism goes hand in hand with the relatively dismal state of socioeconomic development in KP. For instance, in terms of the gross regional product, KP ranks third among Pakistan's four provinces, indicating a lower level of economic activity. In terms of provincial per capita income, KP ranks third, 9.3 % below the national average. Corollary to these economic facts, KP also exhibits a relatively poor state of human development. This is indicated by the low Human Development Index (HDI) score, which ranks KP third among the four provinces (Pasha, 2021). Likewise, KP further manifests the second highest incidence of multidimensional poverty among the four provinces of Pakistan (Oxford Poverty and Human Development Initiative, 2021).

KP also has a long history of religious mobilization. People from this region recruited into Jihadist movements during various epochs. For instance, in 1826, Syed Ahmed Barelvi, an Islamic revivalist from India, came to NWFP⁶ (now KP) and urged the local populace to join him in establishing an Islamic state and waging Jihad against the then neighboring Sikh empire. After securing the support and participation of the local Pashtun tribes, he launched his Jihadist campaign against the Sikh army in 1831 (Khan and Ullah, 2018). In 1948, Pakistan and India fought their first war over the disputed territory of Kashmir. Instead of regular troops, Pakistan entered the war using Pashtun tribesmen from NWFP who joined the conflict against the 'Hindu India' under Jihadist motivations (Yousaf, 2019). In 1979, the then USSR invaded Afghanistan. Under the aegis of the United States, Pakistan undertook the recruitment, indoctrination, and training of the anti-Soviet Mujahideen⁷ fighters predominantly in KP (Ahmad, 2013). After 9/11, KP became the recruitment ground, sanctuary, and launching pad of Al-Qaeda and the Afghan Taliban in their fight against the NATO forces in Afghanistan (Gunaratna and Nielsen, 2008). Currently, KP is facing a surge in various types of religious violence, such as suicide attacks, targeted killings of religious minorities, sectarian clashes, and blasphemy vigilantism.

The above discussion indicates that the socioeconomic disparities are seemingly in tune with the religious mobilization in KP. This line of reasoning is advocated by several studies that posit a link between socioeconomic hardships and radicalization in Pakistan (e.g., Yusuf, 2008; Ahmed, Yousaf and Zeb, 2018). However, most studies propose such linkages primarily on the basis of macro/aggregate level data on socioeconomic indicators. Nevertheless, macro-level variables indicate the state of the overall social context

⁶ North-West Frontier Province

⁷ A term used by Muslims in religious context for individuals engaged in a holy struggle for serving Islam, such as Jihad.

surrounding the individuals. Moreover, numerous studies argue that the social context can greatly moderate the relationship between individual-level perceptions/variables and political beliefs (e.g., Federico and Malka, 2018; Jasko et al., 2020). This could also be salient in the case of KP, which exhibits a confluence of poor socioeconomic conditions and a high degree of religious violence. Despite receiving considerable attention, there is a dearth of studies that test the linkages between individual-level socioeconomic conditions/perceptions and the individual decision to commit or support extreme acts. This study empirically tests these linkages using survey data from the KP province of Pakistan.

4.3 Theoretical Background

This study adopts the theoretical framework of Freytag et al. (2011), who explained the emergence of terrorism from the rational choice perspective. Terrorism is seen as a consequence of the socioeconomic conditions of the terrorists or their *Umfeld*. Terrorists and their supporters are assumed to be rational actors whose behavior is directed by the costs, benefits, and opportunity costs of extreme acts. Likewise, terrorism or its support is viewed as one of the many choices influenced by economic constraints. Of particular importance are the opportunity costs, which indicate the alternatives that one needs to sacrifice while committing or supporting extreme acts.

Under the opportunity costs framework, radicalization results from a trade-off between material and mental rewards. Material rewards, such as income, are obtained by refraining from extreme acts and participating in activities that produce material well-being. Conversely, mental rewards like social recognition, feelings of significance, power, and martyrdom are collected from supporting or committing extreme acts. Individuals opt for extreme acts to seek mental rewards as long as the resulting benefits exceed the (opportunity) costs. The socioeconomic conditions of individuals may significantly influence these cost-benefit calculations. For instance, economic hardships indicate low material rewards from non-violence. This renders the mental incentives associated with extreme acts as attractive prospects for individuals.

In the case of religious (Islamist) radicalization, the opportunity cost considerations are likely to be influenced by the degree of individual religiosity since religion bestows ideology, purpose, and mental rewards/incentives. It is therefore intuitive to assume that a higher degree of religiosity would presumably translate into a greater propensity to political violence when faced with economic hardships. In other words, a certain level or threshold of religiosity must have to be reached to perceive extreme acts as avenues of mental rewards during socioeconomic downturns. This study tests this prediction using survey data of undergraduate students from the Khyber Pakhtunkhwa province of Pakistan. Specifically,

it tests whether socioeconomic hardships drive radicalization only in sufficiently religious people.

A diverse range of variables are drawn from the existing literature to measure the individual perception of socioeconomic conditions/prospects. These variables are discussed below.

4.3.1 Economic Prospects

Literature on the phenomenon frequently mentions that poor economic prospects can considerably influence the radicalization process. For instance, Lehmann and Tyson (2022) developed a model of the strategic interaction between the state and radical groups. Specifically, they theorized the effects of the mutual anticipation of each another's choices on the consequent responses. They argued that the government's policy to enhance economic growth improves the economic prospects of the citizens, which significantly deters the radicalization process. Freytag et al. (2011) studied the socioeconomic determinants of terrorism in 110 countries and found that economic development and improvements in future prospects can significantly reduce terrorism. Holla (2020) studied the relationship between the perception of economic marginalization and radicalization through a correlation research design using survey data of Somali Muslims in Kenya. The study found that the perception of marginalization is related to a rise in radicalization. However, unlike the current study, Holla (2020) did not study the conditional effect of religiosity on this relationship. Yusuf (2008) studied the process of youth radicalization in Pakistan and considered the lack of socioeconomic opportunities to be an important catalyst of this process. Ahmed, Yousaf and Zeb (2018) assessed the determinants of terrorism in Pakistan based on the opinions of university students. A considerable number of students were of the view that the lack of socioeconomic development is associated with susceptibility to terrorism. Drawing on these accounts, this study tests the relationship between the perception of poor economic prospects and radicalization in the Khyber Pakhtunkhwa province of Pakistan.

4.3.2 Political Marginalization

Opportunities for political participation increase the likelihood of economic success, which reduces the need to resort to extreme acts for voicing dissent (Freytag *et al.*, 2011; Wahl, 2019). Conversely, political marginalization deters the chances of economic prosperity and makes political violence more likely (Hansen, Nemeth and Mauslein, 2020). Choi and Piazza (2016) tested the relationship between political marginalization and terrorism using data from 130 countries. They found that countries, where certain ethnic groups are politically excluded, are more likely to suffer from domestic terrorism. Meierrieks, Krieger and Klotzbücher (2021) studied terrorism in 99 countries and found political exclusion associated with terrorist activity. Dalacoura (2006) studied Islamist terrorism in the Middle

East and argued that political exclusion contributes to the adoption of terrorist methods. Zeb and Ahmed (2019) also found political exclusion as an important factor behind terrorism in Pakistan. Drawing on these accounts, this study tests the relationship between radicalization and political marginalization in KP.

4.3.3 Relative Deprivation

Another factor that may drive individual radicalization through socioeconomic differences is the perception of relative deprivation. Relative deprivation is a situation when one considers himself subjected to unfair treatment or disadvantage. This generates anger, resentment, and a desire for revenge against the depriver (van Bergen *et al.*, 2015; Obaidi *et al.*, 2019). Macdougall et al. (2018) analyzed survey data from the US and Netherlands and found that relative deprivation predicts willingness to join violent groups. Obaidi et al. (2019) assessed the relationship between relative deprivation and violent extremism among Muslims in Western countries. They found group-based relative deprivation associated with endorsement of extremism. Pearson (2016) also found socioeconomic deprivation as an important catalyst for the actions of Roshonara Choudhry – a British lone-wolf terrorist who attacked a parliament member in 2010. Drawing on these accounts, this study tests the relationship between radicalization and measures of individual and collective relative deprivations in KP.

4.3.4 Perceived Injustice

Socioeconomic differences may catalyze the perception of injustice among individuals, which can provoke anger and violence as compensatory reactions (Al-Saggaf, 2016; Brunt, Murphy and Ann, 2017). Doosje, Loseman and Bos (2013) studied the process of radicalization in Dutch Muslims and found perceived injustice to be an important predictor of the radical belief system. Pauwels and Heylen (2017) studied Belgian adolescents and young adults and found that perceived injustice wields a significant impact on right-wing extremism. Based on semi-structured interviews with right-wing, left-wing, and religious extremists in Belgium, Schils and Verhage (2017) also found perceived injustice as a starting point of radicalization. Drawing on these accounts, this study includes perceived injustice in the empirical analysis.

4.3.5 Exclusion

The mental rewards of extreme acts may be particularly attractive for individuals experiencing social or economic exclusion. Exclusion induces significance loss which inspires a quest for significance seeking. In such a situation, subscription to extremist ideologies and groups contributes to personal significance and the incremental ingress into radical schemas. Bäck et al. (2018) tested this in Swedish university students and found that social exclusion, and a subsequent inclusion by radical groups, results in the adaption of the

group's attitudes. Lindekilde, Bertelsen and Stohl (2016) studied Danish Islamist foreign fighters and found exclusion as an important factor in their radicalization. Moreover, Hansen, Nemeth and Mauslein (2020) examined sub-national terrorist violence and found that regions with excluded ethnic groups exhibit a higher risk of terrorism. Given the prevailing perception of exclusion in the study setting, this variable is included in the empirical analysis.

4.3.6 Perceived Inequality

An individual's perception of socioeconomic inequality may also act as an important factor in the opportunity cost calculations underlying the radicalization process. Franc and Pavlović (2019) reviewed the relevant literature and argued that the perception of social inequality is related to radical attitudes. Ceder, Weidmann and Gleditsch (2011) studied global horizontal inequalities and found that unequal societies face violent conflict more often than relatively equal ones. Ahmed, Yousaf and Zeb (2018) assessed the domestic triggers of terrorism in Pakistan and found inequality as an important factor in pushing individuals towards militant groups. By studying the 13 Daesh-affiliated Bulgarian Imams, Panayotov (2019) also found that individuals from unequal regions may be highly susceptible to radicalization. Drawing on these accounts, this study includes perceived inequality in the empirical analysis.

4.3.7 Perceived Oppression

The perception of oppression may also stem from the lack or access to the opportunities of economic prosperity. Such a perception is likely to make the mental rewards of political violence particularly attractive. Milla, Faturochman and Ancok (2013) studied Bali bombers and found the oppression of Muslims as a key motivation for their bombings. Moyano and Trujillo (2014) studied radicalism intentions in Spanish Muslim and Christian school students. They found perceived oppression and radicalism correlated in Muslim students. In KP, people widely perceive that they are being oppressed by the dominant ethnic groups. Given this, the current study includes perceived oppression in the empirical analysis.

4.3.8 Religiosity

Since the mental rewards of religiously motivated extremist acts stem primarily from religion, religiosity can therefore play an important role in the radicalization process. For instance, Coid et al. (2016) investigated the population distribution of extremist views in a sample of young men (18-34 years) from England, Scotland, and Wales. They found a significant relationship between religiosity and anti-British extremist views. Dawson (2018) conducted interviews with Western foreign fighters in Syria and Iraq and their friends and families. They found that religiosity plays a substantial role in terrorism, particularly in the case of Jihadism. Rink and Sharma (2018) studied the determinants of religious

radicalization using survey data from Kenya. They found religiosity to be an important predictor of radicalization. Beller and Kröger (2018) studied the predictors of support for extremist violence among Muslims from Albania, Bosnia and Herzegovina, Egypt, Indonesia, Kazakhstan, Kosovo, Malaysia, and Russia. They found support for extremist violence strongly associated with social religious activities. Drawing on these accounts, this study includes religiosity in the empirical analysis.

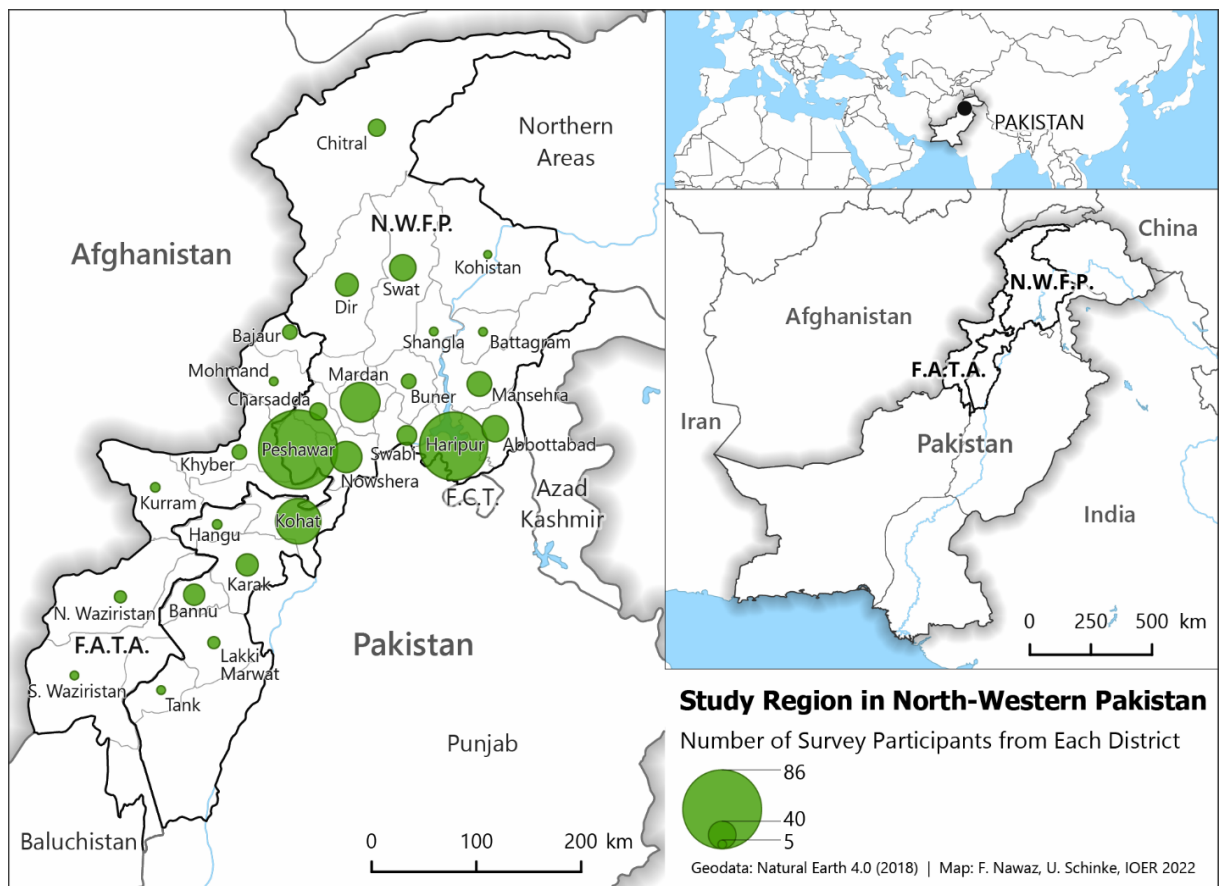
4.4 Research Design and Methods

4.4.1 Participants of the Study⁸

Radicalization in Pakistan is predominantly attributed to the religious, impoverished, illiterate, or Madrassah-educated individuals. This stereotype is reiterated by the press, security experts, and policymakers alike (Delavande and Zafar, 2015). While this could relate to earlier cohorts of extremists, several recent incidents indicate the evolution and transformation of the radicalization landscape in Pakistan (Dawn, 2017). For instance, in 2015, a group of Al-Qaeda-affiliated militants attacked a bus carrying members of the minority Ismaeli Shia community and killed 43 passengers. The attackers later turned out to be highly educated university graduates (Zahid, 2015). In 2017, Naureen Laghari, a Pakistani medical student, traveled to Syria to join the Islamic State of Iraq and Syria (ISIS). After receiving militant training, she returned to carry out a suicide attack on a local church but was arrested beforehand (Firdous, 2017). In the same year, Mashal Khan, a journalism student, was lynched by fellow students on the university campus over allegations of posting blasphemous content against Islam on his Facebook profile (Singay, 2020). In 2019, Khateeb Hussain, an undergraduate student, fatally stabbed his professor for allegedly making blasphemous remarks against Islam (Imran, 2019). These incidents indicate that the educated youth in Pakistan are increasingly gravitating toward radicalism and the avenues of higher education are seemingly instrumental in this process (Iqbal and Mehmood, 2021). To better understand the factors driving this evolving radical landscape, university students constitute a relevant sample. A survey was therefore administered between December 2019 and March 2020 to collect primary data from undergraduate students of 19 universities in the Khyber Pakhtunkhwa province of Pakistan. The map of the study region is given in Figure 4.1 (next page).

⁸ This sub-section is copied from sub-section 3.4.1 of this dissertation.

Figure 4.1: Map of the Study Region



Initially, a pen and paper survey was planned. However, the Covid-19 pandemic and the increased militant activities following the US-Taliban peace deal restricted travel to the study region. Therefore, the questionnaire designed for the pen and paper survey was created in Google Forms, and a web link was generated for remote access. Next, using personal contacts, the faculty members teaching in universities of the target region were approached and requested to implement the survey. They shared the web link of the questionnaire with the undergrad students in their respective universities. Verbal consent was obtained from all participants before participation in the survey.

A total of 510 undergraduate students participated in the survey. About half of the sample is female (52%). Only a small fraction (5.3%) of the participants are married, and most of them (92%) range between the age of 18 and 23 years. A table containing descriptive statistics and survey responses is given in Appendix 4.7.2.

4.4.2 Radicalization Measure⁹

Most publications on Pakistan have studied radicalization from a historical perspective and are predominantly descriptive. Hence, they lack a comprehensive empirical measure of

⁹ This sub-section is copied from sub-section 3.4.2 of this dissertation.

radicalization. To the best of the author's knowledge, only three studies have so far undertaken a rigorous empirical analysis of radicalization in Pakistan.

First, Fair, Malhotra and Shapiro (2012) studied the relationship between religiosity and support for political violence in Pakistan. Second, Blair et al. (2013) assessed the relationship between poverty and support for militant politics in Pakistan. The dependent variables in these studies are based on respondents' expressed support for Islamist militant organizations. Third, Bélanger et al. (2019) studied the processes underlying ideologically motivated violence in Canada, Spain, Pakistan, and the US. They used a 6-item political violence scale as the dependent variable for all four countries. Although these studies provide important insights, their radicalization measures/dependent variables do not undertake context-specific issues central to the contemporary radicalization landscape in Pakistan. These include blasphemy vigilantism, anti-Ahmadi resentment, domestic military operations, and the US presence in Afghanistan – all potentially pivotal to radicalization and extremist violence in Pakistan. Moreover, unlike the current paper, these studies lack a simultaneous focus on socioeconomic variables and religiosity. For instance, Fair, Malhotra and Shapiro (2012) studied the relationship between religion and political violence but did not include economic variables in the empirical analysis. Likewise, Blair et al., (2013) assessed the relationship between poverty and militant politics but did not study the role of religiosity. On the other hand, Bélanger et al. (2019) focused entirely on psychological variables without including the economic and religious dimensions in their empirical analysis.

For building a comprehensive radicalization index, this study adapts nine questions/items from the survey instruments of Rink and Sharma (2018), who assessed radicalization in Kenya. Four main reasons inspire this choice. First, Rink and Sharma (2018) selected their sample from the Eastleigh district of Kenya, consisting of a large number of Somali immigrants and recruiters of Al-Shabaab – the Somalia-based terrorist group. Such features are also salient in the context of KP due to the presence of Afghan refugees and recruiters of the Afghan and Pakistani Taliban. Second, poor socioeconomic conditions are viewed as one of the key drivers of radicalization in Eastleigh (Chepkong'a, 2020). Likewise, several scholars consider the dismal state of socioeconomic conditions in KP as one of the important catalysts of radicalization and violent extremism (e.g., Naz et al., 2013; Khan and Ahmed, 2017; Wahab and Hussain, 2021). Third, Rink and Sharma (2018) focused on inter-religious tensions between Kenyan Muslims and Christians to study the determinants of radicalization. Religious tensions between adherents of differing Islamic sects are also one of the major catalysts of radicalization and extremist violence in Pakistan. Finally, they operationalized and tested their measure of radicalization using primary data from a setting with a considerable degree of religious violence. KP is also facing increasing instances of

religious violence in several manifestations, such as suicide attacks, targeted killings, and blasphemy vigilantism. These reasons rendered the survey instrument of Rink and Sharma (2018) a preferred choice for this study.

For the Pakistani context, six additional items are constructed and added. The fifteen-item radicalization scale of this study measures the following three aspects: support for militant groups, violent behavioral intentions, and support for persecution/vigilantism under blasphemy allegations. All fifteen items are combined and standardized¹⁰ to create the radicalization index (Cronbach's alpha: .78). The survey questions are given in Appendix 4.7.1. A table containing descriptive statistics and the responses to the survey questions is given in Appendix 4.7.2.

4.4.3 Method

This study hypothesizes that socioeconomic hardships increase the likelihood of radicalization for obtaining mental rewards only in sufficiently religious people. In other words, the relationship between socioeconomic factors and religious radicalization may be non-linear, and only after a certain point will religiosity make the mental rewards of political violence attractive while facing socioeconomic hardships. To test this hypothesis, this study uses the non-linear threshold regression approach developed by Hansen (2000). Using religiosity as a threshold variable, this technique splits the sample into two regimes or classes, which allows testing the relationship between socioeconomic factors and radicalization at different degrees of religious adherence. The empirical model of this study in the linear form takes the following shape:

$$Radicalization_i = \alpha_0 + \alpha_1 EcoVar_i + \alpha_2 X_i + \varepsilon_i \quad (1)$$

where $Radicalization_i$ is the dependent variable for individual i , $EcoVar_i$ represents the socioeconomic variables and X_i is a vector of controls (gender, age, marital status, family size, and family income).

To test the non-linearity assumption discussed above, the threshold regression model is written as follows:

$$Radicalization_i = \begin{cases} \beta_0^1 + \beta_1^1 EcoVar_i + \beta_2^1 X_i + e_i, & Religiosity \leq \gamma \\ \beta_0^2 + \beta_1^2 EcoVar_i + \beta_2^2 X_i + e_i, & Religiosity > \gamma \end{cases} \quad (2)$$

where Religiosity is the threshold variable used to split the sample into two regimes, and γ is the unknown threshold parameter. First, the null hypothesis of linearity ($H_0: \beta_1 = \beta_2$) is tested against the threshold model (equation 2) using the fixed bootstrap procedure.

¹⁰ This means that the scores of all items are added and divided by the number of items involved in the computation.

4.5 Results

Results of the threshold regression are given in Table 4.1. Since religiosity is co-linear with several explanatory variables, it is used only as a threshold variable. The results of the pairwise correlation test are reported in Appendix 4.7.3.

The statistically significant bootstrap p-value in Table 4.1 signifies the rejection of the linearity/no-threshold assumption. This p-value corresponds to 5000 replications and a 15% trimming percentage. The existence of the threshold effect is also confirmed in Figure 1, where the F Sequence exceeds the critical value, thereby indicating the rejection of the linearity assumption.

Figure 4.2: Threshold Test

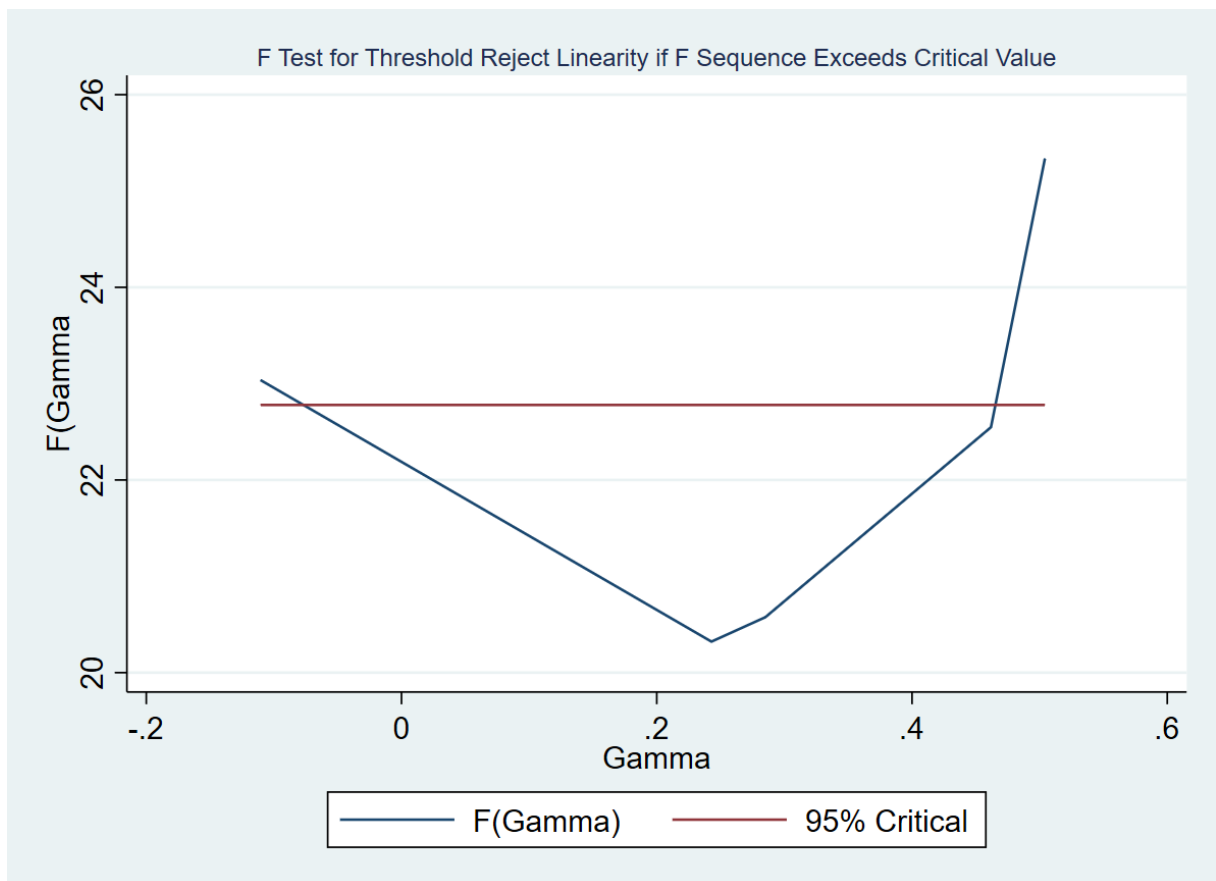


Table 4.1: Threshold Regression

	Outcome: Radicalization	
	Religiosity	
Variables	< -.330	> -.330
Economic Prospects	-0.106 (0.104)	0.136 *** (0.036)
Political Marginalization	0.012 (0.095)	0.027 (0.030)
Individual Relative Deprivation	0.092 (0.119)	0.165 *** (0.042)
Collective Relative Deprivation	-0.281 * (0.115)	0.057 (0.038)
Perceived Injustice	0.107 (0.084)	0.098 *** (0.038)
Exclusion	0.114 (0.095)	0.021 (0.028)
Perceived Inequality	0.033 (0.129)	0.096 * (0.047)
Perceived Oppression	0.084 (0.096)	-0.084 * (0.037)
Controls		
Gender (0 = Female, 1 = Male)	0.190 (0.140)	0.216 *** (0.043)
Age	0.110 (0.070)	0.017 (0.024)
Marital Status	-0.284 (0.245)	0.209 * (0.094)
Family Size	0.204 * (0.101)	0.004 (0.025)
Family Income	-0.104 (0.069)	-0.050 *** (0.018)
Bootstrap (<i>P</i> -value)	0.017	
R-sq	0.319	0.234
Het (<i>P</i> -value)		
No. of Observations	64	446

Standard errors are reported in parenthesis (White Corrected), *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

For comparison, an ordinary least squares (OLS) regression model was also estimated, which showed that radicalization has a statistically significant positive relationship with the perception of poor economic prospects, individual relative deprivation, perceived injustice, perceived inequality, gender, and marital status. The results of the OLS model are given in Appendix 4. However, Hansen's (2000) method provides more nuanced conclusions, as discussed in the following sections.

4.5.1 Economic Prospects

The respondents' perception of poor economic prospects is measured using three survey questions/items. The first of these items is drawn from Rink and Sharma (2018), while the rest are designed specifically for this study. Responses to these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. All three items are combined and standardized to create the index of poor economic prospects (Cronbach's alpha: .48). The survey questions are given in Appendix 4.7.1.

Table 4.1 indicates that the perception of poor economic prospects has a statistically significant positive relationship with radicalization only above the religiosity threshold. This supports the hypothesis of this study that poor economic prospects fosters radicalization only in highly religious individuals. This loosely relates to Freytag et al. (2011), who studied the determinants of terrorism in 110 countries and found that depressed socioeconomic conditions reduce the opportunity costs of terrorism and are thus instrumental in catalyzing terrorism.

4.5.2 Political Marginalization

Political marginalization is measured using three survey questions adapted from Rink and Sharma (2018). Responses to both items were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. These two items are combined and standardized to create the political marginalization index (Cronbach's alpha: .18). The survey questions are given in Appendix 4.7.1.

Table 4.1 indicates that political marginalization lacks a statistically significant relationship with radicalization below and above the religiosity threshold. This finding is in line with Rink and Sharma (2018), who found a null relationship between political marginalization and radicalization in Kenya. It contests Rathore and Basit (2010), Basit (2015), and Naseer, Amin and Maroof (2019), who argued that political marginalization is a crucial driver of radicalization in Pakistan.

4.5.3 Relative Deprivation

Individual relative deprivation is measured using six survey questions adapted from Doosje, Loseman and Bos (2013). Responses to these questions were obtained on a five-point Likert

scale which ranged from 1, strongly disagree, to 5, strongly agree. All six items are combined and standardized to create the individual relative deprivation index (Cronbach's alpha: .85). Likewise, collective relative deprivation is also measured using six questions adapted from Doosje, Loseman and Bos (2013). Responses to these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. All six items are combined and standardized to create the collective relative deprivation index (Cronbach's alpha: .87). The survey questions are given in Appendix 4.7.1.

Table 4.1 shows that individual relative deprivation has a statistically significant positive relationship with radicalization only above the religiosity threshold, indicating that relative deprivation drive radicalization only in highly religious individuals. This is in line with the relative deprivation hypothesis of Gurr (2015), which considers relative deprivation to be an important impetus for political violence. It also supports the propositions of Khan and Kiran (2012) and Khan and Ahmed (2017), who considered deprivation a major cause of radicalization in Pakistan.

On the other hand, a statistically significant negative relationship is detected between collective relative deprivation and radicalization below the religiosity threshold. From this, it could be deduced that for less religious individuals, collective relative deprivation does not act as a catalyst for radicalization.

4.5.4 Perceived Injustice

The perception of injustice is measured using seven survey questions adapted from Doosje, Loseman and Bos (2013). Responses to all these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. All seven items are combined and standardized to create the perceived injustice index (Cronbach's alpha: .80). The survey questions are given in Appendix 4.7.1.

Table 4.1 indicates that perceived injustice has a statistically significant positive relationship only above the religiosity threshold, indicating that injustice catalyzes radicalization only in sufficiently religious people. This relates to Doosje, Loseman and Bos (2013) and Pauwels and Heylen (2017), who found perceived injustice significantly related to radicalization in Dutch and Belgian samples, respectively. It also supports Hussain et al. (2014), Khan (2015), and Tanoli (2018), who considered injustice as an important cause of radicalization in Pakistan.

4.5.5 Exclusion

The respondents' perception of exclusion is measured using six survey questions adapted from Gilman et al. (2013). Responses to all these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. All six items are

combined and standardized to create the exclusion index (Cronbach's alpha: .87). The survey questions are given in Appendix 4.7.1.

Table 4.1 indicates that exclusion lacks a statistically significant relationship with radicalization below and above the religiosity threshold. Therefore, this study departs from Renström, Bäck and Knapton (2020) and Bäck et al. (2018), who found exclusion and radicalization empirically related.

4.5.6 Perceived Inequality

The respondents' perception of socioeconomic inequality is measured using five survey questions specifically designed for this study. Responses to all these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. All five items are combined and standardized to create the inequality index (Cronbach's alpha: .48). The survey questions are given in Appendix 4.7.1.

Table 4.1 indicates that perceived inequality has a statistically significant positive relationship with only above the religiosity threshold. This suggests that inequality drives radicalization only in highly religious individuals. This finding supports the propositions of Azam and Aftab (2009) and Malik (2009), who, in their theoretical studies, considered inequality to be an important driver of militancy in Pakistan.

4.5.7 Perceived Oppression

Perceived oppression is measured using ten survey questions adapted from Lobato (2017). Responses to all these questions were obtained on a five-point Likert scale which ranged from 1, strongly disagree, to 5, strongly agree. All ten items are combined and standardized to create the perceived oppression index (Cronbach's alpha: .92). The survey questions are given in Appendix 4.7.1.

Table 4.1 indicates that perceived oppression has a statistically significant negative relationship with radicalization only above the religiosity threshold. This means that oppression reduces the likelihood of radicalization in highly religious individuals. This is in line with the widely held belief among Muslims that considers oppression a test of faith from Allah, which entails great rewards for steadfastness. The Quran mentions that Allah will reward the oppressed in the hereafter if they maintain righteousness while suffering and pardon the oppressor instead of retribution (Vasegh, 2009). Likewise, the Hadiths¹¹ also promise significant rewards in the hereafter for facing oppression, such as loading the sins

¹¹ Hadiths refer to the sayings and traditions of the Islamic Prophet Muhammad. Hadiths are considered an important source of *Shariah* (Islamic law), ranking second only to the Quran.

of the oppressed onto the oppressor (al-Bukhari, 9th Century). This suggests that highly religious individuals may find greater meaning in oppression.

4.5.8 Sociodemographic Controls

Among the sociodemographic controls, gender has a statistically significant positive coefficient only above the religiosity threshold in Table 4.1. This means that highly religious men are more prone to radical world views. Conversely, age lacks a statistically significant relationship with radicalization below and above the religiosity threshold. Moreover, marital status has a statistically significant positive relationship with radicalization only above the religiosity threshold. This implies that for highly religious couples, the marital relationship act as a mutually reinforcing echo chamber for transmitting concerns, ideology, and dissent. Marriage allows couples to push each other to think and act more radically than each would do on their own (Alexander, 2015). Family size has a statistically significant positive relationship with radicalization only below the religiosity threshold. This relates to (Rodermond and Weerman, 2021), who studied the impact of family characteristics on susceptibility to terrorism using data of 226 individuals suspected of terrorist intent in the Netherlands. They found that terrorist suspects, on average, come from larger families than individuals from the rest of the population. The current study finds that susceptibility to radicalization prevails only in less religious larger families. It is intuitive to assume that highly religious families are more tightly knitted since they are generally concerned about transmitting their ideology and groupthink, ensuring control and integration. Conversely, families with large size and lower religiosity indicate lower parental control and commitment, thereby increasing the risk of radicalization. Finally, income has a statistically significant negative relationship with radicalization only above the religiosity threshold. This suggests that economic improvements decrease the likelihood of radicalization even in highly religious individuals.

4.5.9 Robustness Check

As a robustness check, Model 2 is re-estimated by adding religiosity as both threshold and explanatory variable. Religiosity is measured using the two-item scale adapted from Rink and Sharma (2018). These two items are combined and standardized to create the religiosity index (Cronbach's alpha: .03). The survey questions are given in Appendix 4.7.1.

The existence of the threshold effect is also confirmed in this specification, as shown in Appendix 4.7.5. The results are given in Appendix 4.7.6. Compared to the previous results (i.e., Table 4.1), this specification brings no new insights. The only changes that occur are in the linear regression. For instance, in the linear regression, perceived inequality now has a statistically significant positive relationship with radicalization. Conversely, family income is negatively related to radicalization. Moreover, marital status now lacks a statistically

significant relationship with radicalization. However, linear regression is not the main focus of this study. On the other hand, no major change is detected in the threshold regression, and results remain nearly the same in terms of signs and statistical significance. The only exception is religiosity, which as an explanatory variable, has a statistically significant negative relationship with radicalization only above the threshold value. This suggests that higher religiosity tends to instill greater tolerance among individuals. This is in line with Clingingsmith, Khwaja and Kremer, (2009), who observed greater tolerant and peaceful attitudes in Pakistani Muslims after they performed Hajj¹², an indicator of serious devotion and adherence to religion.

4.5.9.1 Squared Terms

As a robustness check for non-linearity, squared terms are added in the linear regression for all the variables with thresholds. Squared terms allow for checking the existence of switch points in quadratic relationships. The table in Appendix 4.7.7 confirms the presence of such switch points, which are called inflection points. These are also shown graphically in Appendix 8. However, since squared terms capture only one type of switch point (i.e., inflection points), therefore Hansen (2000) is preferred since it can detect more than one type of unknown switch points (Arin *et al.*, 2021).

4.6 Discussion and Conclusion

This study tests the relationship between socioeconomic factors and radicalization using survey data from the Khyber Pakhtunkhwa province of Pakistan. The study finds a statistically significant positive relationship between radicalization and the indicators of the individual level socioeconomic conditions, such as the perceptions of economic prospects, individual relative deprivation, injustice, and inequality above the religiosity threshold. These findings indicate that socioeconomic hardships (or the perception of these) drive radicalization only in sufficiently religious people. Moreover, the study detects a statistically significant negative relationship between family income and radicalization. This implies that apart from security-centric approaches, radicalization can also be deterred by increasing the opportunity costs of political violence through socioeconomic improvements. Moreover, promoting balanced and diverse religious views may also help check the radicalization process. Apart from these main findings, two takeaways from the results merit discussion.

First, as discussed above, the study detects a positive relationship between radicalization and the perceptions of poor economic prospects, relative deprivation, injustice, and inequality only above the religiosity threshold. The participants of this study come from a

¹² Islamic pilgrimage to Mecca

region that exhibits a dismal state of aggregate socioeconomic conditions and a high degree of religious violence, as outlined in Section 2. Hence, it can be argued that a mutually constitutive relationship may exist between regional contextual factors and individual perceptions. This relates to Federico and Malka (2018) and Jasko et al. (2020), who argued that the relationship between individual-level variables and political beliefs is moderated by the surrounding social context. This suggests that policies that foster regional development, diversity, and inclusion may also reduce the risk of radicalization.

Second, the study finds that the explanatory variables are associated with the outcome variable in a threshold-dependent way. The threshold parameter (i.e., religiosity) acts as a change point, enabling the modeling of the non-linearity in the relationship between radicalization and independent variables. From this, it can be deduced that instead of religiosity per se, a certain degree of religious adherence may be required to subscribe to the mental rewards of religiously motivated political violence while facing economic hardships.

For future research, two possible directions are suggested. First, this study tests the relationship between radicalization and perceived socioeconomic conditions. Hence, it furnishes evidence on the link between socioeconomic factors and support for political violence from the micro perspective. However, the aggregate/regional socioeconomic conditions may greatly influence these individual-level perceptions. Since the current study is based on individual-level/micro data from a single region, it cannot capture the effect of aggregate socioeconomic factors on individual (radical) perceptions. To better understand the impact of the context on the individuals, future studies may combine the micro data of individual-level support for violent groups/acts with indicators of aggregate socioeconomic conditions. Second, to test the generalizability of these results, future studies may empirically test the framework of this paper in other regions with considerable degrees of religious radicalization.

4.7 Appendix

4.7.1 Questionnaire/Survey Instrument

Dear Participant,

This survey will be used in a university research project purely for academic purposes. Your participation is completely voluntary, and you will not be asked for personal information like your name, address, etc. Please note that your responses will not be shared with anyone else. We will be thankful for your participation.

Sociodemographic Controls

Variable	Statement
Age	What is your age in years?
1	18 – 19
2	20 – 21
3	22 – 23
4	24 – 25
5	26 and Above
Gender	What is your gender?
0	Female
1	Male
Marital Status	What is your marital status?
0	Unmarried
1	Married
Family Size	How many people live in your house as one family?
1	1 – 5
2	6 – 10
3	11 – 15
4	16 – 20
5	21 and above
Family Income	In terms of total income, at which level can your family be placed?
1	
2	Rs. 5,000 – 10,000
3	Rs. 11,000 – 20,000
4	Rs. 21,000 – 30,000
	Rs. 31,000 – 40,000

5	Above Rs. 40,000
---	------------------

Radicalization

Instruction: For each of the statements below, please indicate how much you agree or disagree by choosing the appropriate option using (✓).

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	Imagine that a Pakistani Imam says that all Pakistani Muslims should support the Afghan Taliban in their fight against the American army in Afghanistan. How much would you agree to the Imam's demand?					
2	Imagine that a Muslim person is killed by an American drone strike in Afghanistan or the tribal areas (FATA) of Pakistan. One of his relatives decides to join the Afghan Taliban to take revenge. How much would you agree that he made the right decision?					
3	In 2007, Pakistan conducted a military operation in Laal Masjid (Red Mosque), during which the head Imam, Maulana Abdur Rashid, died. Afterward, Osama Bin Laden described him as a hero of Islam and declared war against the Pakistan army. To what extent do you agree that the declaration of Osama Bin Laden is acceptable?					
4	The Quran has ordered that a Muslim should not kill himself. This is what the Quran says (Quran 2:29): "And do not kill	Yes (11)	No (0)			

	yourselves. Indeed, Allah is to you ever merciful." Have you heard about this?					
5	Imagine that a Muslim man has problems with his family. He decides to kill himself. To what extent do you agree that this is acceptable?					
6	Imagine that a Muslim man is beaten by the Pakistani police. He decides to wear a suicide jacket and attack the police. To what extent do you agree that this is acceptable?					
7	Imagine that a Muslim man is beaten by the Pakistani police. He decides to place a bomb at the police station. To what extent do you agree that this is acceptable?					
8	The Hadith forbids a Muslim from killing women and children. This is what the Hadith says (Kitab al-Jihad): "Do not kill women, children, the old or the infirm (weak)." Have you heard about this?	Yes (1)	No (0)			
9	Imagine that a Muslim man has a severe problem with his daughter. He decides to kill her. To what extent do you agree this is acceptable?					
10	Imagine that after an Imam was killed, a Muslim man attacks a bus filled with men, women, and children. To what extent do you agree that this situation is acceptable?					
11	Imagine that after an Iman was killed, a Muslim man attacks a bus filled with adult men. To what extent do you agree that this is acceptable?					

12	In 2011, the Governor of Punjab (Salman Taseer) was killed by his police bodyguard, Mumtaz Qadri. The killer claimed that it was his religious duty to kill the Governor because he spoke against the blasphemy law. Do you agree that the claims of Mumtaz Qadri are acceptable?					
13	In 2017, Mashal Khan, a student at Abdul Wali Khan University Mardan, was blamed for posting blasphemous content against Islam on Facebook. Rather than handing him over to the police, he was killed by a crowd of people inside his university over these allegations. Do you agree that this situation is acceptable?					
14	In the blasphemy case against Aasia Bibi, an Imam in Peshawar offered a reward of five lakh rupees to anyone who kills her. To what extent do you agree that this is acceptable?					
15	Imagine that a Pakistani Imam says that one's faith/belief in Islam allows him to use violence against the Ahmadis. How much would you agree with the Imam's statement?					

Economic Prospects

Instruction: The statements given below relate to your perception regarding yourself in various situations. You are requested to tell us how much you agree or disagree by choosing the appropriate option using (✓).

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I believe I have little chance of becoming wealthy in Pakistan.					
2	My family is not fairly treated in the existing economic situation.					
3	My family members have to struggle frequently to find good employment due to our ethnicity/caste (e.g., Pashtun, Punjabi, Sindhi, Baluch, etc.).					

Political Marginalization

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I plan to vote in the next election.					
2	The Pakistani government does not represent my interests.					

Individual Relative Deprivation

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I don't think I get as many chances as others in Pakistan.					
2	It makes me angry when I think of how I am treated compared to others in Pakistan.					

3	I think I am less well off than others in Pakistan.					
4	I have the feeling that I am being discriminated.					
5	If I compare myself with others in Pakistan, I have the feeling that I am being treated unfairly.					
6	I think I can buy less than others in Pakistan.					

Collective Relative Deprivation

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I think my ethnic group (e.g., Pashtuns) is less well off than other groups in Pakistan.					
2	It makes me angry when I think of how my ethnic group is treated compared to other groups in Pakistan.					
3	I believe people from my ethnic group are discriminated.					
4	If I compare my ethnic group with other groups in Pakistan, I have the feeling that we are being treated unfairly.					
5	I think that people from my ethnic group don't get as many opportunities as others in Pakistan.					
6	I think people from my ethnic group cannot buy more than others in Pakistan.					

Perceived Injustice

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I think I am usually treated fairly.					
2	I think that in my life, I am treated the same as everyone else.					
3	I think people generally listen to me well.					
4	I think that when people make decisions about me, they are always well prepared.					
5	I think I am usually treated with respect.					
6	If I disagree with something, I get enough opportunity to have my say.					
7	I think that when I have complaints about something, my opinion is generally listened to carefully.					

Exclusion

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	In general, others spend time with me for relaxing and enjoying.					
2	In general, others invite me to their club, organization, or association.					
3	In general, others include me in their plans for the holidays/vacations.					
4	In general, others make an effort to get my attention.					

5	In general, others invite me to go out to eat with them.					
6	In general, others invite me to join them for weekend activities, hobbies, or events.					

Perceived Inequality

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I am satisfied with the economic situation of my family.					
2	In comparison with the community where I live, the economic situation of my family is worse.					
3	In comparison with the community where I live, the access of my family to the government services is better.					
4	I am concerned about the inequality that exists around me and my family.					
5	There is a serious need for re-distribution of resources within my society.					

Perceived Oppression

S. No	Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	My ethnic group (e.g., Pashtuns) is considered inferior.					
2	My ethnic group is often looked down upon.					

3	Some people treat us unjustly.					
4	The dominant ethnic groups want to humiliate us.					
5	We are denied our equal rights.					
6	We feel humiliated.					
7	The dominant ethnic group keeps us from living the way we want.					
8	My ethnic group gets controlled too much.					
9	The dominant ethnic groups want to physically hurt us.					
10	My ethnic group is often verbally abused.					

Religiosity

1. If you had to choose one label to describe yourself from the following options, which would it be?

- 1) Male
- 2) Female
- 3) Muslim
- 4) Caste/Tribe
- 5) Pakistani

2. How often do you visit your place of worship to offer prayers?

- 1) Daily
- 2) Weekly
- 3) Monthly
- 4) Sometimes

5) Rarely

4.7.2 Descriptive Statistics and Survey Responses

Table 4.2: Descriptive Statistics and Survey Responses

Variables	Frequency	Percent	Cumulative	Mean	Std. Dev.	Min	Max
AGE (YEARS)				2.202	.898	1	5
18 – 19	117	22.94	22.94				
20 – 21	216	42.35	65.29				
22 – 23	138	27.06	92.35				
24 – 25	35	6.86	99.22				
26 and above	4	0.78	100.00				
GENDER				.5	.5	0	1
Male	244	47.48	47.48				
Female	266	52.16	100.00				
MARITAL STATUS				.053	.224	0	1
Unmarried	483	94.71	94.71				
Married	27	5.29	100.00				
FAMILY SIZE				1.992	.848	1	5
1 – 5	126	24.71	24.71				
6 – 10	308	60.39	85.10				
11 – 15	43	8.43	93.53				
16 – 20	20	3.92	97.45				
21 and above	13	2.55	100.00				
FAMILY INCOME (MONTHLY)				3.924	1.214	1	5
Rs. 0 – 10,000	20	3.92	3.92				

Rs. 11,000 – 20,000	55	10.78	14.71				
Rs. 21,000 – 30,000	111	21.76	36.47				
Rs. 31,000 – 40,000	82	16.08	52.55				
Above Rs. 40,000	242	47.45	100.00				
RADICALIZATION				0	.496	-1.027	2.234
<i>Support Taliban</i>							
Strongly Disagree	61	11.96	11.96				
Disagree	99	19.41	31.37				
Undecided	152	29.80	61.18				
Agree	123	24.12	85.29				
Strongly Agree	75	14.71	100.00				
<i>Join Taliban</i>							
Strongly Disagree	65	12.75	12.75				
Disagree	151	29.61	42.35				
Undecided	123	24.12	66.47				
Agree	112	21.96	88.43				
Strongly Agree	59	11.57	100.00				
<i>Support Bin Laden's Declaration</i>							
Strongly Disagree	76	14.90	14.90				
Disagree	123	24.12	39.02				
Undecided	193	37.84	76.86				

Agree	83	16.27	93.14				
Strongly Agree	35	6.86	100.00				
<i>Quranic verse</i>							
No	40	7.84	7.84				
Yes	470	92.16	100.00				
<i>Kill Self</i>							
Strongly Disagree	364	71.37	71.37				
Disagree	115	22.55	93.92				
Undecided	16	3.14	97.06				
Agree	11	2.16	99.22				
Strongly Agree	4	0.78	100.00				
<i>Attack Police</i>							
Strongly Disagree	283	55.49	55.49				
Disagree	157	30.78	86.27				
Undecided	51	10.00	96.27				
Agree	11	2.16	98.43				
Strongly Agree	8	1.57	100.00				
<i>Bomb Police Station</i>							
Strongly Disagree	313	61.37	61.37				
Disagree	150	29.41	90.78				
Undecided	32	6.27	97.06				
Agree	8	1.57	98.63				
Strongly Agree	7	1.37	100.00				

<i>Hadith</i>							
No	56	10.98	10.98				
Yes	454	89.02	100.00				
<i>Kill Daughter</i>							
Strongly Disagree	350	68.63	68.63				
Disagree	109	21.37	90.00				
Undecided	37	7.25	97.25				
Agree	6	1.18	98.43				
Strongly Agree	8	1.57	100.00				
<i>Attack Men, Women & Children</i>							
Strongly Disagree	332	65.10	65.10				
Disagree	123	24.12	89.22				
Undecided	48	9.41	98.63				
Agree	4	0.78	99.41				
Strongly Agree	3	0.59	100.00				
<i>Attack Adult Men</i>							
Strongly Disagree	286	56.08	56.08				
Disagree	159	31.18	87.25				
Undecided	52	10.20	97.45				
Agree	5	0.98	98.43				
Strongly Agree	8	1.57	100.00				
<i>Kill Governor</i>							

Strongly Disagree	50	9.80	9.80				
Disagree	88	17.25	27.06				
Undecided	153	30.00	57.06				
Agree	109	21.37	78.43				
Strongly Agree	110	21.57	100.00				
<i>Kill Mashal</i>							
Strongly Disagree	177	34.71	34.71				
Disagree	135	26.47	61.18				
Undecided	106	20.78	81.96				
Agree	59	11.57	93.53				
Strongly Agree	33	6.47	100.00				
<i>Kill Asia Bibi</i>							
Strongly Disagree	92	18.04	18.04				
Disagree	101	19.80	37.84				
Undecided	166	32.55	70.39				
Agree	84	16.47	86.86				
Strongly Agree	67	13.14	100.00				
<i>Violence Against Ahmadis</i>							
Strongly Disagree	66	12.94	12.94				
Disagree	89	17.45	30.39				
Undecided	153	30.00	60.39				
Agree	118	23.14	83.53				
Strongly Agree	84	16.47	100.00				

POOR ECONOMIC PROSPECTS				0	.703	-1.768	1.634
<i>Economic Prospects</i>							
Strongly Disagree	42	8.24	8.24				
Disagree	98	19.22	27.45				
Undecided	63	12.35	39.80				
Agree	211	41.37	81.18				
Strongly Agree	96	18.82	100.00				
<i>Unfair Treatment</i>							
Strongly Disagree	43	8.43	8.43				
Disagree	156	30.59	39.02				
Undecided	116	22.75	61.76				
Agree	166	32.55	94.31				
Strongly Agree	29	5.69	100.00				
<i>Struggle</i>							
Strongly Disagree	72	14.12	14.12				
Disagree	160	31.37	45.49				
Undecided	93	18.24	63.73				
Agree	141	27.65	91.37				
Strongly Agree	44	8.63	100.00				
POLITICAL MARGINALIZATION				0	.743	-1.535	1.769
<i>Vote</i>							
Strongly Disagree	53	10.39	10.39				
Disagree	53	10.39	20.78				

Undecided	67	13.14	33.92				
Agree	163	31.96	65.88				
Strongly Agree	174	34.12	100.00				
<i>Representation</i>							
Strongly Disagree	29	5.69	5.69				
Disagree	96	18.82	24.51				
Undecided	146	28.63	53.14				
Agree	158	30.98	84.12				
Strongly Agree	81	15.88	100.00				
INDIVIDUAL RELATIVE DEPRIVATION				0	.8	-1.6	1.9
<i>Chances</i>							
Strongly Disagree	37	7.25	7.25				
Disagree	153	30.00	37.25				
Undecided	117	22.94	60.20				
Agree	148	29.02	89.22				
Strongly Agree	55	10.78	100.00				
<i>Treatment</i>							
Strongly Disagree	44	8.63	8.63				
Disagree	169	33.14	41.76				
Undecided	93	18.24	60.00				
Agree	143	28.04	88.04				
Strongly Agree	61	11.96	100.00				
<i>Less Well Off</i>							
Strongly Disagree	54	10.59	10.59				

Disagree	175	34.31	44.90				
Undecided	131	25.69	70.59				
Agree	121	23.73	94.31				
Strongly Agree	29	5.69	100.00				
<i>Discrimination</i>							
Strongly Disagree	59	11.57	11.57				
Disagree	194	38.04	49.61				
Undecided	117	22.94	72.55				
Agree	111	21.76	94.31				
Strongly Agree	29	5.69	100.00				
<i>Comparison</i>							
Strongly Disagree	67	13.14	13.14				
Disagree	211	41.37	54.51				
Undecided	90	17.65	72.16				
Agree	107	20.98	93.14				
Strongly Agree	35	6.86	100.00				
<i>Buying</i>							
Strongly Disagree	46	9.02	9.02				
Disagree	191	37.45	46.47				
Undecided	108	21.18	67.65				
Agree	127	24.90	92.55				
Strongly Agree	38	7.45	100.00				
COLLECTIVE RELATIVE DEPRIVATION				0	.8	-1.7	1.8

<i>Group Less Well Off</i>							
Strongly Disagree	87	17.06	17.06				
Disagree	170	33.33	50.39				
Undecided	118	23.14	73.53				
Agree	95	18.63	92.16				
Strongly Agree	40	7.84	100.00				
<i>Group's Treatment</i>							
Strongly Disagree	39	7.65	7.65				
Disagree	119	23.33	30.98				
Undecided	139	27.25	58.24				
Agree	152	29.80	88.04				
Strongly Agree	61	11.96	100.00				
<i>Group Discrimination</i>							
Strongly Disagree	43	8.43	8.43				
Disagree	135	26.47	34.90				
Undecided	131	25.69	60.59				
Agree	151	29.61	90.20				
Strongly Agree	50	9.80	100.00				
<i>Group Unfairly Treated</i>							
Strongly Disagree	51	10.00	10.00				
Disagree	156	30.59	40.59				
Undecided	114	22.35	62.94				

Agree	131	25.69	88.63				
Strongly Agree	58	11.37	100.00				
<i>Group Opportunities</i>							
Strongly Disagree	57	11.18	11.18				
Disagree	162	31.76	42.94				
Undecided	103	20.20	63.14				
Agree	134	26.27	89.41				
Strongly Agree	54	10.59	100.00				
<i>Buying</i>							
Strongly Disagree	69	13.53	13.53				
Disagree	175	34.31	47.84				
Undecided	130	25.49	73.33				
Agree	107	20.98	94.31				
Strongly Agree	29	5.69	100.00				
PERCEIVED INJUSTICE				0	.7	-2.7	1.4
<i>Fair Treatment</i>							
Strongly Disagree	11	2.16	2.16				
Disagree	60	11.76	13.92				
Undecided	76	14.90	28.82				
Agree	283	55.49	84.31				
Strongly Agree	80	15.69	100.00				
<i>Equal Treatment</i>							
Strongly Disagree	13	2.55	2.55				

Disagree	81	15.88	18.43				
Undecided	82	16.08	34.51				
Agree	261	51.18	85.69				
Strongly Agree	73	14.31	100.00				
<i>Listening</i>							
Strongly Disagree	14	2.75	2.75				
Disagree	57	11.18	13.92				
Undecided	54	10.59	24.51				
Agree	292	57.25	81.76				
Strongly Agree	93	18.24	100.00				
<i>Decision</i>							
Strongly Disagree	12	2.35	2.35				
Disagree	80	15.69	18.04				
Undecided	138	27.06	45.10				
Agree	227	44.51	89.61				
Strongly Agree	53	10.39	100.00				
<i>Respect</i>							
Strongly Disagree	6	1.18	1.18				
Disagree	34	6.67	7.84				
Undecided	60	11.76	19.61				
Agree	306	60.00	79.61				
Strongly Agree	104	20.39	100.00				
<i>Disagreeing</i>							
Strongly Disagree	11	2.16	2.16				

Disagree	70	13.73	15.88				
Undecided	114	22.35	38.24				
Agree	255	50.00	88.24				
Strongly Agree	60	11.76	100.00				
<i>Complaints</i>							
Strongly Disagree	21	4.12	4.12				
Disagree	59	11.57	15.69				
Undecided	106	20.78	36.47				
Agree	269	52.75	89.22				
Strongly Agree	55	10.78	100.00				
EXCLUSION				0	.8	-2.3	1.4
<i>Time Spending</i>							
Strongly Disagree	16	3.14	3.14				
Disagree	55	10.78	13.92				
Undecided	93	18.24	32.16				
Agree	238	46.67	78.82				
Strongly Agree	108	21.18	100.00				
<i>Invitation</i>							
Strongly Disagree	34	6.67	6.67				
Disagree	114	22.35	29.02				
Undecided	111	21.76	50.78				
Agree	198	38.82	89.61				
Strongly Agree	53	10.39	100.00				
<i>Holiday Plans</i>							

Strongly Disagree	36	7.06	7.06				
Disagree	78	15.29	22.35				
Undecided	93	18.24	40.59				
Agree	231	45.29	85.88				
Strongly Agree	72	14.12	100.00				
<i>Attention</i>							
Strongly Disagree	27	5.29	5.29				
Disagree	90	17.65	22.94				
Undecided	109	21.37	44.31				
Agree	219	42.94	87.25				
Strongly Agree	65	12.75	100.00				
<i>Eating Invitation</i>							
Strongly Disagree	24	4.71	4.71				
Disagree	70	13.73	18.43				
Undecided	67	13.14	31.57				
Agree	270	52.94	84.51				
Strongly Agree	79	15.49	100.00				
<i>Weekend Invitations</i>							
Strongly Disagree	26	5.10	5.10				
Disagree	87	17.06	22.16				
Undecided	88	17.25	39.41				
Agree	238	46.67	86.08				
Strongly Agree	71	13.92	100.00				

PERCEIVED INEQUALITY				0	.6	-1.8	1.5
<i>Satisfaction</i>							
Strongly Disagree	39	7.65	7.65				
Disagree	93	18.24	25.88				
Undecided	72	14.12	40.00				
Agree	221	43.33	83.33				
Strongly Agree	85	16.67	100.00				
<i>Worse Economic Situation</i>							
Strongly Disagree	58	11.37	11.37				
Disagree	182	35.69	47.06				
Undecided	129	25.29	72.35				
Agree	107	20.98	93.33				
Strongly Agree	34	6.67	100.00				
<i>Government Services</i>							
Strongly Disagree	33	6.47	6.47				
Disagree	111	21.76	28.24				
Undecided	130	25.49	53.73				
Agree	198	38.82	92.55				
Strongly Agree	38	7.45	100.00				
<i>Inequality Concern</i>							
Strongly Disagree	28	5.49	5.49				
Disagree	133	26.08	31.57				

Undecided	168	32.94	64.51				
Agree	147	28.82	93.33				
Strongly Agree	34	6.67	100.00				
<i>Redistribution</i>							
Strongly Disagree	18	3.53	3.53				
Disagree	47	9.22	12.75				
Undecided	93	18.24	30.98				
Agree	215	42.16	73.14				
Strongly Agree	137	26.86	100.00				
PERCEIVED OPPRESSION				0	.8	-1.7	1.9
<i>Inferior</i>							
Strongly Disagree	44	8.63	8.63				
Disagree	156	30.59	39.22				
Undecided	140	27.45	66.67				
Agree	128	25.10	91.76				
Strongly Agree	42	8.24	100.00				
<i>Looked Down Upon</i>							
Strongly Disagree	41	8.04	8.04				
Disagree	147	28.82	36.86				
Undecided	156	30.59	67.45				
Agree	126	24.71	92.16				
Strongly Agree	40	7.84	100.00				
<i>Unjust Treatment</i>							

Strongly Disagree	44	8.63	8.63				
Disagree	153	30.00	38.63				
Undecided	99	19.41	58.04				
Agree	172	33.73	91.76				
Strongly Agree	42	8.24	100.00				
<i>Humiliated by Dominant Groups</i>							
Strongly Disagree	47	9.22	9.22				
Disagree	193	37.84	47.06				
Undecided	122	23.92	70.98				
Agree	115	22.55	93.53				
Strongly Agree	33	6.47	100.00				
<i>Rights</i>							
Strongly Disagree	38	7.45	7.45				
Disagree	154	30.20	37.65				
Undecided	96	18.82	56.47				
Agree	150	29.41	85.88				
Strongly Agree	72	14.12	100.00				
<i>Felt Humiliated</i>							
Strongly Disagree	51	10.00	10.00				
Disagree	212	41.57	51.57				
Undecided	106	20.78	72.35				
Agree	105	20.59	92.94				
Strongly Agree	36	7.06	100.00				

<i>Living</i>							
Strongly Disagree	44	8.63	8.63				
Disagree	165	32.35	40.98				
Undecided	130	25.49	66.47				
Agree	131	25.69	92.16				
Strongly Agree	40	7.84	100.00				
<i>Control</i>							
Strongly Disagree	43	8.43	8.43				
Disagree	157	30.78	39.22				
Undecided	121	23.73	62.94				
Agree	147	28.82	91.76				
Strongly Agree	42	8.24	100.00				
<i>Hurt</i>							
Strongly Disagree	63	12.35	12.35				
Disagree	221	43.33	55.69				
Undecided	107	20.98	76.67				
Agree	86	16.86	93.53				
Strongly Agree	33	6.47	100.00				
<i>Abuse</i>							
Strongly Disagree	55	10.78	10.78				
Disagree	180	35.29	46.08				
Undecided	119	23.33	69.41				
Agree	120	23.53	92.94				
Strongly Agree	36	7.06	100.00				

RELIGIOSITY				0	.7	-1.3	2.7
<i>Prayer Frequency</i>							
Daily	395	77.45	77.45				
Weekly	37	7.25	84.71				
Monthly	12	2.35	87.06				
Sometimes	21	4.12	91.18				
Rarely	45	8.82	100.00				
<i>Identity</i>							
Male	17	3.33	3.33				
Female	9	1.76	5.10				
Muslim	404	79.22	84.31				
Caste/Tribe	13	2.55	86.86				
Pakistani	67	13.14	100.00				

4.7.3 Pairwise Correlation Test

Table 4.3: Pairwise Correlation Test

<i>Variables</i>	(1)
(1) Religiosity	1.000
(2) Radicalization	-0.010 (0.820)
(3) Economic Prospects	0.073 (0.097)
(4) Political Marginalization	0.063 (0.153)
(5) Individual Relative Deprivation	0.101 * (0.023)
(6) Collective Relative Deprivation	0.040 (0.366)
(7) Perceived Injustice	-0.126 * (0.004)
(8) Exclusion	-0.063 (0.156)
(9) Perceived Inequality	0.002 (0.966)
(10) Perceived Oppression	0.022 (0.615)
(11) Age	-0.040 (0.368)
(12) Gender	-0.023 (0.598)
(13) Marital Status	-0.093 * (0.035)
(14) Family Size	-0.047 (0.292)
(15) Family Income	0.023 (0.609)

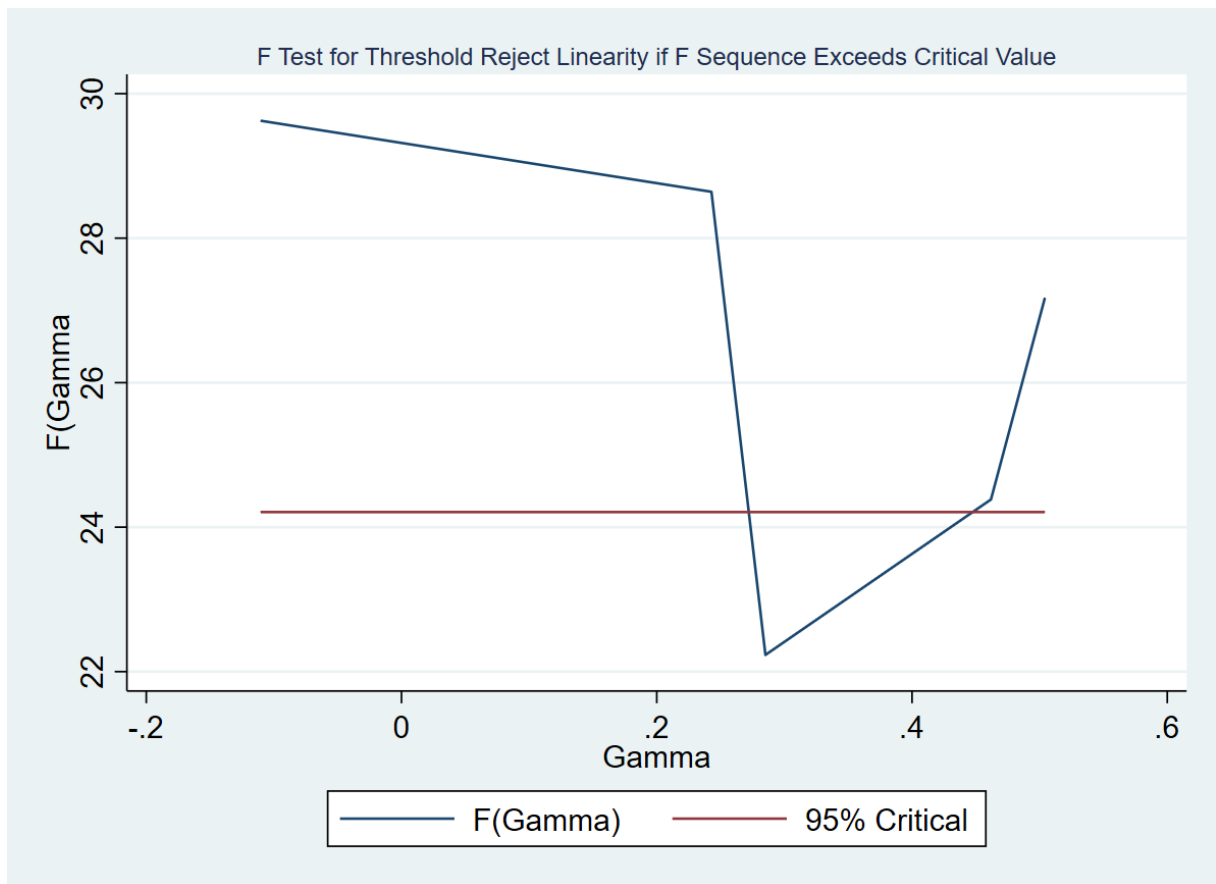
4.7.4 Linear Regression

Table 4.4: Linear Regression

Outcome: Radicalization	
<i>Variables</i>	Linear
Economic Prospects	0.103 *** (0.035)
Political Marginalization	0.031 (0.030)
Individual Relative Deprivation	0.149 *** (0.041)
Collective Relative Deprivation	-0.005 (0.041)
Perceived Injustice	0.110 *** (0.036)
Exclusion	0.001 (0.028)
Perceived Inequality	0.102 ** (0.044)
Perceived Oppression	-0.024 (0.040)
<i>Controls</i>	
Gender (0 = Female, 1 = Male)	0.211 *** (0.041)
Age	0.016 (0.023)
Marital Status	0.149 * (0.089)
Family Size	0.035 (0.030)
Family Income	-0.057 (0.017)
Bootstrap (P-value)	0.017
R-sq	0.183
Het (P-value)	0.009
No. of Observations	510
*** p<0.01, ** p<0.05, * p<0.1	

4.7.5 Threshold Test (Robustness Check)

Figure 4.2: Threshold Test (Robustness Check)



4.7.6 Threshold Regression (Robustness Check)

Table 4.5: Threshold Regression (Robustness Check)

<i>Variables</i>	Outcome: Radicalization		
	Linear	< -.330	> -.330
Economic Prospects	0.104 *** (0.035)	-0.113 (0.108)	0.139 *** (0.035)
Political Marginalization	0.031 (0.030)	0.011 (0.096)	0.026 (0.030)
Individual Relative Deprivation	0.150 *** (0.041)	0.111 (0.133)	0.169 *** (0.041)
Collective Relative Deprivation	-0.005 (0.042)	-0.296 ** (0.123)	0.061 (0.038)

Perceived Injustice	0.110 *** (0.037)	0.108 (0.084)	0.087 ** (0.039)
Exclusion	0.001 (0.028)	0.100 (0.108)	0.023 (0.028)
Perceived Inequality	0.103 (0.044)	0.033 (0.129)	0.099 ** (0.046)
Perceived Oppression	-0.024 (0.040)	0.076 (0.100)	-0.089 ** (0.037)
Religiosity	-0.006 (0.031)	0.106 (0.270)	-0.074 ** (0.037)
<i>Controls</i>			
Gender (0 = Female, 1 = Male)	0.211 *** (0.041)	0.194 (0.143)	0.218 ** (0.043)
Age	0.016 (0.023)	0.105 (0.070)	0.014 (0.024)
Marital Status	0.147 (0.090)	-0.271 (0.244)	0.191 ** (0.095)
Family Size	0.035 (0.030)	0.203 ** (0.101)	0.001 (0.025)
Family Income	-0.057 *** (0.017)	-0.108 * (0.066)	-0.045 ** (0.018)
Bootstrap (P-value)	0.000		
R-sq	0.183	0.321	0.241
Het (P-value)	0.011		
No. of Observations	510	64	446

Note: Standard errors are reported in parenthesis (White Corrected).

*** p<0.01, ** p<0.05, * p<0.1

4.7.7 Linear Regression with Squared Terms and Inflection Points

Table 4.6: Linear Regression with Squared Terms and Inflection Points

Outcome: Radicalization	Coef.	Inflection Point
<i>Variables</i>		
Economic Prospects	.097 ** (.039)	1.383
Economic Prospects^2	-.035 (.041)	

Political Marginalization	.037 (.03)	
Individual Relative Deprivation	.137 *** (.039)	2.333
Individual Relative Deprivation ²	-.029 (.034)	
Collective Relative Deprivation	-.002 (.04)	-.094
Collective Relative Deprivation ²	-.01 (.035)	
Perceived Injustice	.136 *** (.037)	-1.164
Perceived Injustice ²	.058 ** (.025)	
Exclusion	.004 (.028)	
Perceived Inequality	.108 ** (.043)	-.883
Perceived Inequality ²	.061 (.048)	
Perceived Oppression	-.015 (.037)	-.051
Perceived Oppression ²	-.15 *** (.03)	
<i>Controls</i>		
Gender (0 = Female, 1 = Male)	.229 *** (.041)	
Age	.025 (.023)	
Marital Status (0 = Unmarried, 1 = Married)	.179 ** (.089)	
Family Size	-.099 (.105)	424.060
Family Size ²	.03	

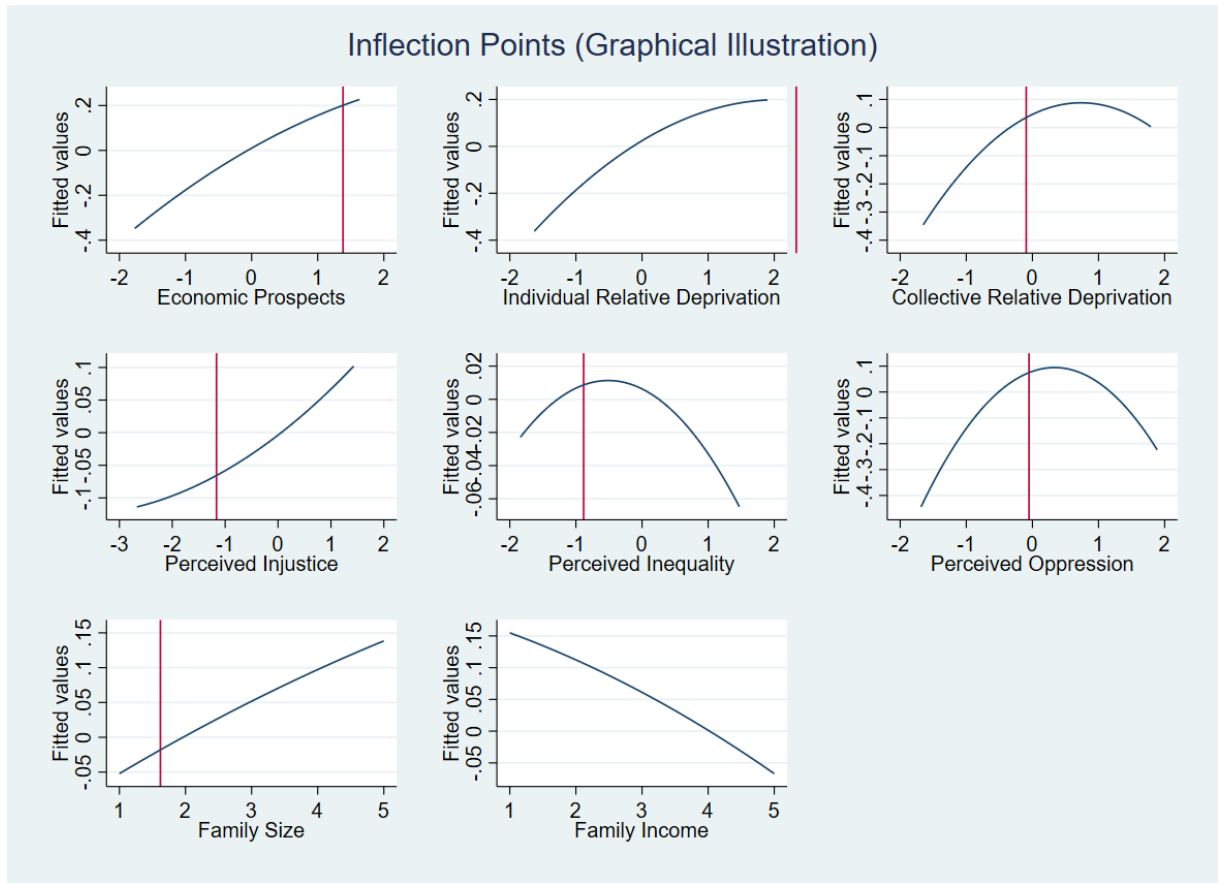
	(.022)	
Family Income	-.049	
	(.113)	1.621
Family Income^2	0	
	(.016)	

Note: Standard errors are reported in parenthesis (Robust).

*** p<0.01, ** p<0.05, * p<0.1

4.7.8 Inflection Points (Graphical Illustration)

Figure 4.3: Inflection Points (Graphical Illustration)



REFERENCES

- Adamczyk, A. and LaFree, G. (2019) 'Religion and Support for Political Violence among Christians and Muslims in Africa', *Sociological Perspectives*, 62(6), pp. 948–979. Available at: <https://doi.org/10.1177/0731121419866813>.
- Adam-Troian, J. *et al.* (2019) 'Positive associations between anomia and intentions to engage in political violence: Cross-cultural evidence from four countries', *Peace and Conflict: Journal of Peace Psychology* [Preprint]. Available at: <https://doi.org/10.1037/pac0000385>.
- Ahmad, A. (2016a) 'The Ties That Bind and Blind: Embeddedness and Radicalisation of Youth in One Islamist Organisation in Pakistan', *Journal of Development Studies*, 52(1), pp. 5–21.
- Ahmad, A. (2016b) 'The Ties that Bind and Blind: Embeddedness and Radicalisation of Youth in One Islamist Organisation in Pakistan', *The Journal of Development Studies*, 52(1), pp. 5–21. Available at: <https://doi.org/10.1080/00220388.2015.1075976>.
- Ahmad, M. (2013) 'Insurgency in FATA: causes and a way forward', *Pakistan annual research journal*, 49, pp. 11–43.
- Ahmed, Z.S., Yousaf, F. and Zeb, K. (2018) 'Socio-economic and Political Determinants of Terrorism in Pakistan: University Students' Perceptions', *International Studies*, 55(2), pp. 130–145. Available at: <https://doi.org/10.1177/0020881718790689>.
- Alexander, A. (2015) 'Couples make each other more radical. That's very bad for fighting terrorism', *The Washington Post*, 21 December. Available at: <https://www.washingtonpost.com/posteverything/wp/2015/12/23/couples-make-each-other-more-radical-thats-very-bad-for-fighting-terrorism/> (Accessed: 8 March 2022).
- Ali, M.B. (2015) *Roots Of Religious Extremism, The: Understanding The Salafi Doctrine Of Al-wala' Wal Bara'*. World Scientific.
- Allan, H. *et al.* (2015) 'Drivers of Violent Extremism: Hypotheses and Literature'.
- Alvi, H. (2014) 'The diffusion of intra-Islamic violence and terrorism: The impact of the proliferation of Salafi/Wahhabi ideologies', *Middle East Review of International Affairs (Online)*, 18(2), p. 38.

- Aly, A. and Striegher, J.-L. (2012) 'Examining the Role of Religion in Radicalization to Violent Islamist Extremism', *Studies in Conflict & Terrorism*, 35(12), pp. 849–862. Available at: <https://doi.org/10.1080/1057610X.2012.720243>.
- Amble, J.C. and Meleagrou-Hitchens, A. (2014) 'Jihadist Radicalization in East Africa: Two Case Studies', *Studies in Conflict & Terrorism*, 37(6), pp. 523–540. Available at: <https://doi.org/10.1080/1057610X.2014.893406>.
- Anaz, N., Aslan, Ö. and Özkan, M. (2016) 'Turkish foreign terrorist fighters and the emergence of a new kind of radicalization', *Turkish Studies*, 17(4), pp. 618–642. Available at: <https://doi.org/10.1080/14683849.2016.1243987>.
- Andre, V. and Harris-Hogan, S. (2013) 'Mohamed Merah: From Petty Criminal to Neojihadist', *Politics, Religion & Ideology*, 14(2), pp. 307–319. Available at: <https://doi.org/10.1080/21567689.2013.792655>.
- Arin, P. *et al.* (2021) 'Inflection Points, Kinks, and Jumps: A Statistical Approach to Detecting Nonlinearities', *Organizational Research Methods*, p. 10944281211058466. Available at: <https://doi.org/10.1177/10944281211058466>.
- Asta Maskaliūnaitė (2015) 'Exploring the Theories of Radicalization', *International Studies. Interdisciplinary Political and Cultural Journal*, 17(1), pp. 9–26. Available at: <https://doi.org/10.1515/ipcj-2015-0002>.
- Awan, M.S. (2012) 'Impact of radical Islamisation of education on Pakistani society', *Pakistaniaat: A Journal of Pakistan Studies*, 4(2), pp. 45–55.
- Azam, M. and Aftab, S. (2009) 'Inequality and the Militant Threat in Pakistan', *Pakistan Institute for Peace Studies* [Preprint].
- Aziz, K. (2015) 'Drivers of Radicalism and Extremism in Pakistan', *Friedrich-Ebert-Stiftung, Pakistan* [Preprint].
- Azman-Saini, W.N.W., Law, S.H. and Ahmad, A.H. (2010) 'FDI and economic growth: New evidence on the role of financial markets', *Economics Letters*, 107(2), pp. 211–213. Available at: <https://doi.org/10.1016/j.econlet.2010.01.027>.
- Bäck, E.A. *et al.* (2018) 'The Quest for Significance: Attitude Adaption to a Radical Group Following Social Exclusion', *International Journal of Developmental Science*. Edited by H. Scheithauer *et al.*, 12(1–2), pp. 25–36. Available at: <https://doi.org/10.3233/DEV-170230>.

- Bäck, E.A., Bäck, H. and Knapton, H.M. (2015) 'Group belongingness and collective action: Effects of need to belong and rejection sensitivity on willingness to participate in protest activities', *Scandinavian Journal of Psychology*, 56(5), pp. 537–544. Available at: <https://doi.org/10.1111/sjop.12225>.
- Bakker, E. and de Leede, S. (2015) 'European Female Jihadists in Syria: Exploring an Under-Researched Topic', *Terrorism and Counter-Terrorism Studies* [Preprint]. Available at: <https://doi.org/10.19165/2015.2.02>.
- Basit, A. (2015) 'Countering Violent Extremism: Evaluating Pakistan's Counter-Radicalization and de-Radicalization Initiatives', *IPRI Journal*, 15(2), pp. 44–68.
- Bayerl, P.S. *et al.* (2014) 'Chapter 33 - A Framework for the Investigation and Modeling of Online Radicalization and the Identification of Radicalized Individuals', in B. Akhgar and H.R. Arabnia (eds) *Emerging Trends in ICT Security*. Boston: Morgan Kaufmann, pp. 539–547. Available at: <https://doi.org/10.1016/B978-0-12-411474-6.00033-5>.
- Bélanger, J.J. *et al.* (2019) 'Radicalization Leading to Violence: A Test of the 3N Model', *Frontiers in Psychiatry*, 10, p. 42. Available at: <https://doi.org/10.3389/fpsy.2019.00042>.
- Beller, J. and Kröger, C. (2018) 'Religiosity, religious fundamentalism, and perceived threat as predictors of Muslim support for extremist violence', *Psychology of Religion and Spirituality*, 10(4), pp. 345–355. Available at: <https://doi.org/10.1037/rel0000138>.
- Bensaid, B. (2017) 'THE PATH TO SELF-RADICALIZATION: READINGS INTO THE CASE OF MARTIN "AHMAD" COUTURE-ROULEAU (AHMAD LE CONVERTI)', *Journal of Al-Tamaddun*, 12(1), pp. 15–33. Available at: <https://doi.org/10.22452/JAT.vol12no1.2>.
- van Bergen, D.D. *et al.* (2015) 'Collective identity factors and the attitude toward violence in defense of ethnicity or religion among Muslim youth of Turkish and Moroccan Descent', *International Journal of Intercultural Relations*, 47, pp. 89–100. Available at: <https://doi.org/10.1016/j.ijintrel.2015.03.026>.
- Bhui, K., Everitt, B. and Jones, E. (2014) 'Might Depression, Psychosocial Adversity, and Limited Social Assets Explain Vulnerability to and Resistance against Violent Radicalisation?', *PLoS ONE*. Edited by I. Correa-Velez, 9(9), p. e105918. Available at: <https://doi.org/10.1371/journal.pone.0105918>.

Bhui, K., Warfa, N. and Jones, E. (2014) 'Is violent radicalisation associated with poverty, migration, poor self-reported health and common mental disorders?', *PLoS one*, 9(3), p. e90718.

Blair, G. *et al.* (2013) 'Poverty and Support for Militant Politics: Evidence from Pakistan: *POVERTY AND SUPPORT FOR MILITANT POLITICS*', *American Journal of Political Science*, 57(1), pp. 30–48. Available at: <https://doi.org/10.1111/j.1540-5907.2012.00604.x>.

Böckler, N. *et al.* (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), pp. 5–24. Available at: <https://doi.org/10.3233/DEV-180255>.

Böckler, N., Hoffmann, J. and Meloy, J.R. (2017) "'Jihad Against the Enemies of Allah": The Berlin Christmas Market Attack from a Threat Assessment Perspective', *Violence and Gender*, 4(3), pp. 73–80. Available at: <https://doi.org/10.1089/vio.2017.0040>.

Borum, R. (2011) 'Radicalization into violent extremism I: A review of social science theories', *Journal of strategic security*, 4(4), pp. 7–36.

Botha, A. (2014) 'Political Socialization and Terrorist Radicalization Among Individuals Who Joined al-Shabaab in Kenya', *Studies in Conflict & Terrorism*, 37(11), pp. 895–919. Available at: <https://doi.org/10.1080/1057610X.2014.952511>.

Brunt, B.V., Murphy, A. and Ann, Z. (2017) 'An Exploration of the Risk, Protective, and Mobilization Factors Related to Violent Extremism in College Populations', *Violence and Gender* [Preprint]. Available at: <https://doi.org/10.1089/vio.2017.0039>.

al-Bukhari, M. ibn I. (9th Century) *Sahih al-Bukhari*. (Book 43, Number 629). Available at: https://www.sahih-bukhari.com/Pages/Bukhari_3_43.php (Accessed: 2 August 2022).

Capellan, J.A. and Anisin, A. (2018) 'A Distinction Without a Difference? Examining the Causal Pathways Behind Ideologically Motivated Mass Public Shootings', *Homicide Studies*, 22(3), pp. 235–255. Available at: <https://doi.org/10.1177/1088767918770704>.

Ceder, L.-E., Weidmann, N.B. and Gleditsch, K.S. (2011) 'Horizontal Inequalities and Ethnonationalist Civil War: A Global Comparison', *The American Political Science Review*, 105(3), pp. 478–495.

- Chepkong'a, M. (2020) 'Community Policing: An approach for Countering Youth Radicalization in Eastleigh Area of Nairobi County', *East African Journal of Interdisciplinary Studies*, 2, pp. 89–99. Available at: <https://doi.org/10.37284/eajis.2.1.212>.
- Choi, S.-W. and Piazza, J.A. (2016) 'Ethnic groups, political exclusion and domestic terrorism', *Defence and Peace Economics*, 27(1), pp. 37–63. Available at: <https://doi.org/10.1080/10242694.2014.987579>.
- Clingingsmith, D., Khwaja, A.I. and Kremer, M. (2009a) 'Estimating the Impact of The Hajj: Religion and Tolerance in Islam's Global Gathering*', *The Quarterly Journal of Economics*, 124(3), pp. 1133–1170. Available at: <https://doi.org/10.1162/qjec.2009.124.3.1133>.
- Clingingsmith, D., Khwaja, A.I. and Kremer, M. (2009b) 'Estimating the Impact of the Hajj: Religion and Tolerance in Islam's Global Gathering *', *Quarterly Journal of Economics*, 124(3), pp. 1133–1170. Available at: <https://doi.org/10.1162/qjec.2009.124.3.1133>.
- Coid, J.W. *et al.* (2016) 'Extremism, religion and psychiatric morbidity in a population-based sample of young men', *British Journal of Psychiatry*, 209(6), pp. 491–497. Available at: <https://doi.org/10.1192/bjp.bp.116.186510>.
- Costello, M. *et al.* (2018) 'Predictors of Viewing Online Extremism Among America's Youth', *Youth & Society*, p. 0044118X18768115. Available at: <https://doi.org/10.1177/0044118X18768115>.
- Crone, M. (2016) 'Radicalization revisited: violence, politics and the skills of the body', *International Affairs*, 92(3), pp. 587–604. Available at: <https://doi.org/10.1111/1468-2346.12604>.
- Dalacoura, K. (2006) 'Islamist terrorism and the Middle East democratic deficit: Political exclusion, repression and the causes of extremism', *Democratization*, 13(3), pp. 508–525. Available at: <https://doi.org/10.1080/13510340600579516>.
- Dash, K.K. (2008) 'The Fatwa Against Terrorism: Indian Deobandis Renounce Violence but Policing Remains Unchanged', in *Radicalisation Crossing Borders International Conference, Melbourne, Australia*.
- Dawn (2017) *Extremism in universities*, DAWN.COM. Available at: <https://www.dawn.com/news/1345738> (Accessed: 15 November 2021).

- Dawson, L.L. (2018) 'Debating the Role of Religion in the Motivation of Religious Terrorism', *Nordic Journal of Religion and Society*, 31(02), pp. 98–117. Available at: <https://doi.org/10.18261/issn.1890-7008-2018-02-02>.
- Delavande, A. and Zafar, B. (2015) 'Stereotypes and Madrassas: Experimental evidence from Pakistan', *Journal of Economic Behavior & Organization*, 118, pp. 247–267. Available at: <https://doi.org/10.1016/j.jebo.2015.03.020>.
- Delia Deckard, N. and Jacobson, D. (2015) 'The prosperous hardliner: Affluence, fundamentalism, and radicalization in Western European Muslim communities', *Social Compass*, 62(3), pp. 412–433. Available at: <https://doi.org/10.1177/0037768615587827>.
- Doosje, B., Loseman, A. and Bos, K. van den (2013) 'Determinants of Radicalization of Islamic Youth in the Netherlands: Personal Uncertainty, Perceived Injustice, and Perceived Group Threat', *Journal of Social Issues*, 69(3), pp. 586–604. Available at: <https://doi.org/10.1111/josi.12030>.
- Dzhekova, R. *et al.* (2016) 'Understanding radicalization', *Review of literature. Sofia: Center for the Study of Democracy* [Preprint].
- Elbert, T., Weierstall, R. and Schauer, M. (2010) 'Fascination violence: on mind and brain of man hunters', *European Archives of Psychiatry and Clinical Neuroscience*, 260(S2), pp. 100–105. Available at: <https://doi.org/10.1007/s00406-010-0144-8>.
- Erlandsson, Å. and Meloy, J.R. (2018) 'The Swedish School Attack in Trollhättan', *Journal of Forensic Sciences*, 63(6), pp. 1917–1927. Available at: <https://doi.org/10.1111/1556-4029.13800>.
- Fair, C.C., Malhotra, N. and Shapiro, J.N. (2012) 'Faith or Doctrine? Religion and Support for Political Violence in Pakistan', *Public Opinion Quarterly*, 76(4), pp. 688–720. Available at: <https://doi.org/10.1093/poq/nfs053>.
- Federico, C.M. and Malka, A. (2018) 'The Contingent, Contextual Nature of the Relationship Between Needs for Security and Certainty and Political Preferences: Evidence and Implications', *Political Psychology*, 39(S1), pp. 3–48. Available at: <https://doi.org/10.1111/pops.12477>.
- Ferenczi, N. *et al.* (2016) 'Associations of insecure attachment with extreme pro-group actions: The mediating role of perceived marginalisation', *Personality and Individual Differences*, 91, pp. 84–88. Available at: <https://doi.org/10.1016/j.paid.2015.11.057>.

- Ferguson, N. and McAuley, J.W. (2020) 'Radicalization or Reaction: Understanding Engagement in Violent Extremism in Northern Ireland', *Political Psychology*, 41(2), pp. 215–230. Available at: <https://doi.org/10.1111/pops.12618>.
- Fernandez, M., Gonzalez-Pardo, A. and Alani, H. (2019) 'Radicalisation Influence in Social Media', p. 16.
- Firdous, M.A. (2017) 'Counterterrorism in Cyberspace', *CISS Insight Journal*, 5(4), pp. 43–61.
- Franc, R. and Pavlović, T. (2019) 'The relationship between inequality and radicalization-insights based on syntheses of existing empirical studies', in. *Anniversary International Conference of the Centre for Youth Studies (HSE - St. Petersburg) Youth in the 21st Century: Multiplicity And Difference*, Petrograd, Russia.
- Franc, R. and Pavlović, T. (2021) 'Inequality and Radicalisation - Systematic Review of Quantitative Studies', *Terrorism and Political Violence*, 0(0), pp. 1–26. Available at: <https://doi.org/10.1080/09546553.2021.1974845>.
- Freytag, A. *et al.* (2011a) 'The origins of terrorism: Cross-country estimates of socio-economic determinants of terrorism', *European Journal of Political Economy*, 27, pp. S5–S16. Available at: <https://doi.org/10.1016/j.ejpoleco.2011.06.009>.
- Freytag, A. *et al.* (2011b) 'The origins of terrorism: Cross-country estimates of socio-economic determinants of terrorism', *European Journal of Political Economy*, 27, pp. S5–S16. Available at: <https://doi.org/10.1016/j.ejpoleco.2011.06.009>.
- Frounfelker, R.L. *et al.* (2019) 'Exploring the discrimination–radicalization nexus: empirical evidence from youth and young adults in Belgium', *International Journal of Public Health*, 64(6), pp. 897–908. Available at: <https://doi.org/10.1007/s00038-019-01226-z>.
- Gilman, R. *et al.* (2013) 'Validation of the ostracism experience scale for adolescents', *Psychological Assessment*, 25(2), pp. 319–330. Available at: <https://doi.org/10.1037/a0030913>.
- Gostin, L.O. (2014) 'Global Polio Eradication: Espionage, Disinformation, and the Politics of Vaccination', *The Milbank Quarterly*, 92(3), pp. 413–417. Available at: <https://doi.org/10.1111/1468-0009.12065>.

- Groppi, M. (2017) 'An Empirical analysis of causes of islamist radicalisation: Italian case study', *Perspectives on terrorism*, 11(1).
- Groppi, M. (2018) *Islamist radicalisation in Italy: myth or nightmare?: an empirical analysis of the Italian case study*. King's College London.
- Guerra, N.G., Rowell Huesmann, L. and Spindler, A. (2003) 'Community Violence Exposure, Social Cognition, and Aggression Among Urban Elementary School Children', *Child Development*, 74(5), pp. 1561–1576. Available at: <https://doi.org/10.1111/1467-8624.00623>.
- Gunaratna, R. and Nielsen, A. (2008) 'Al Qaeda in the Tribal Areas of Pakistan and Beyond', *Studies in Conflict & Terrorism*, 31(9), pp. 775–807. Available at: <https://doi.org/10.1080/10576100802291568>.
- Gurr, T.R. (2015) *Why Men Rebel*. New York: Routledge. Available at: <https://doi.org/10.4324/9781315631073>.
- Hansen, B.E. (2000) 'Sample Splitting and Threshold Estimation', *Econometrica*, 68(3), pp. 575–603. Available at: <https://doi.org/10.1111/1468-0262.00124>.
- Hansen, H.E., Nemeth, S.C. and Mauslein, J.A. (2018) 'Ethnic political exclusion and terrorism: Analyzing the local conditions for violence', *Conflict Management and Peace Science*, p. 0738894218782160. Available at: <https://doi.org/10.1177/0738894218782160>.
- Hansen, H.E., Nemeth, S.C. and Mauslein, J.A. (2020) 'Ethnic political exclusion and terrorism: Analyzing the local conditions for violence', *Conflict Management and Peace Science*, 37(3), pp. 280–300. Available at: <https://doi.org/10.1177/0738894218782160>.
- Haque, R.U. (2014) *Youth radicalization in Pakistan*. 167. Washington, D.C.: United States Institute of Peace, pp. 1–5. Available at: <https://www.usip.org/publications/2014/02/youth-radicalization-pakistan>.
- Hardy, K. (2018) 'Comparing theories of radicalisation with countering violent extremism policy', *Journal for Deradicalization*, (15), pp. 76–110.
- Holla, A.B. (2020) 'Marginalization of Ethnic Communities and the Rise in Radicalization', *Traektoriâ Nauki= Path of Science*, 6(7).

- Holt, T.J. *et al.* (2019) 'Loners, Colleagues, or Peers? Assessing the Social Organization of Radicalization', *American Journal of Criminal Justice*, 44(1), pp. 83–105. Available at: <https://doi.org/10.1007/s12103-018-9439-5>.
- Hug, E.C. (2013) *The Role of Isolation in Radicalization: How Important Is It?* NAVAL POSTGRADUATE SCHOOL MONTEREY CA. Available at: <https://apps.dtic.mil/sti/citations/ADA620454> (Accessed: 20 July 2020).
- Hussain, S. *et al.* (2014) 'Theoretical Analysis of Socio-Economic and Political Causes of Terrorism in Pakistan', *Pakistan Journal of Criminology*, 6(2), p. 53.
- Hussain, S. and Ahmad, A.R. (2022) 'Examining perceptions towards war/peace journalism: A survey of journalists in Iraq, Afghanistan and Pakistan', *International Communication Gazette*, 84(3), pp. 183–205. Available at: <https://doi.org/10.1177/17480485211015618>.
- Imran, M. (2019) *Bahawalpur student stabs professor to death over 'anti-Islam' remarks*, *DAWN.COM*. Available at: <https://www.dawn.com/news/1470814> (Accessed: 18 November 2020).
- Iqbal, K. and Mehmood, Z. (2021) 'Emerging trends of on-campus radicalization in Pakistan', *Journal of Policing, Intelligence and Counter Terrorism*, 16(2), pp. 141–156. Available at: <https://doi.org/10.1080/18335330.2021.1902551>.
- Jasko, K. *et al.* (2020) 'Social context moderates the effects of quest for significance on violent extremism', *Journal of Personality and Social Psychology*, 118(6), pp. 1165–1187. Available at: <https://doi.org/10.1037/pspi0000198>.
- Jasko, K., LaFree, G. and Kruglanski, A. (2017) 'Quest for Significance and Violent Extremism: The Case of Domestic Radicalization', *Political Psychology*, 38(5), pp. 815–831. Available at: <https://doi.org/10.1111/pops.12376>.
- Javaid, U. (2011) 'Genesis and effects of religious extremism in Pakistan', *International Journal of Business and Social Science*, 2(7), pp. 282–288.
- Jenne, E.K., Saideman, S.M. and Lowe, W. (2007) 'Separatism as a Bargaining Posture: The Role of Leverage in Minority Radicalization', *Journal of Peace Research*, 44(5), pp. 539–558. Available at: <https://doi.org/10.1177/0022343307080853>.

- Jensen, M.A., Atwell Seate, A. and James, P.A. (2018) 'Radicalization to Violence: A Pathway Approach to Studying Extremism', *Terrorism and Political Violence*, pp. 1–24. Available at: <https://doi.org/10.1080/09546553.2018.1442330>.
- Kadir, J. and Jawad, M. (2020) 'Politics and the family: Rethinking the India–Pakistan two-nations theory through the familial construction of political ideas', *India Review*, 19(3), pp. 223–253. Available at: <https://doi.org/10.1080/14736489.2020.1754009>.
- Karmon, E. (2009) 'Pakistan, the Radicalization of the Jihadist Movement and the Challenge to China', *Journal of Middle Eastern and Islamic Studies (in Asia)*, 3(3), pp. 14–28.
- Kavanagh, J. (2011) 'Selection, Availability, and Opportunity: The Conditional Effect of Poverty on Terrorist Group Participation', *Journal of Conflict Resolution*, 55(1), pp. 106–132. Available at: <https://doi.org/10.1177/0022002710374713>.
- Khan, A.U. (2015) 'De-Radicalization of Pakistani Society', *Journal of Research in Social Sciences*, 3(2), p. 55.
- Khan, G. and Ahmed, M. (2017a) 'Socioeconomic Deprivation, Fanaticism and Terrorism: A Case of Waziristan, Pakistan', *Pakistan Journal of History & Culture*, 38(2), pp. 65–83.
- Khan, G. and Ahmed, M. (2017b) 'Socioeconomic Deprivation, Fanaticism and Terrorism: A Case of Waziristan, Pakistan', *Pakistan Journal of History and Culture*, 38(2).
- Khan, K. and Kiran, A. (2012) 'Emerging tendencies of radicalization in Pakistan', *Strategic Studies*, 32(2/3), pp. 20–43.
- Khan, Z. and Ullah, R. (2018) 'Historical Roots of Radicalization in Pashtun's Society', *Al-Idah*, 36(2), pp. 59–65.
- Kleinmann, S.M. (2012) 'Radicalization of Homegrown Sunni Militants in the United States: Comparing Converts and Non-Converts', *Studies in Conflict & Terrorism*, 35(4), pp. 278–297. Available at: <https://doi.org/10.1080/1057610X.2012.656299>.
- Kmietowicz, Z. (2014) 'Radicalisation is a public health problem that needs to be discussed to be prevented, says psychiatrist', *BMJ*, 349(oct17 1), pp. g6273–g6273. Available at: <https://doi.org/10.1136/bmj.g6273>.

Kruglanski, A.W. *et al.* (2014) 'The Psychology of Radicalization and Deradicalization: How Significance Quest Impacts Violent Extremism: Processes of Radicalization and Deradicalization', *Political Psychology*, 35, pp. 69–93. Available at: <https://doi.org/10.1111/pops.12163>.

Kundnani, A. (2012) 'Radicalisation: the journey of a concept', *Race & Class*, 54(2), pp. 3–25. Available at: <https://doi.org/10.1177/0306396812454984>.

Lafree, G. *et al.* (2018) 'Correlates of Violent Political Extremism in the United States*', *Criminology*, 56(2), pp. 233–268. Available at: <https://doi.org/10.1111/1745-9125.12169>.

Lall, M. (2008) 'Educate to hate: The use of education in the creation of antagonistic national identities in India and Pakistan', *Compare*, 38(1), pp. 103–119.

Law, S.H., Azman-Saini, W.N.W. and Ibrahim, M.H. (2013) 'Institutional quality thresholds and the finance – Growth nexus', *Journal of Banking & Finance*, 37(12), pp. 5373–5381. Available at: <https://doi.org/10.1016/j.jbankfin.2013.03.011>.

Lehmann, T.C. and Tyson, S.A. (2022) 'Sowing the Seeds: Radicalization as a Political Tool', *American Journal of Political Science*, 66(2), pp. 485–500. Available at: <https://doi.org/10.1111/ajps.12602>.

Leuzinger-Bohleber, M. (2016) 'From free speech to IS—Pathological regression of some traumatized adolescents from a migrant background in Germany', *International Journal of Applied Psychoanalytic Studies*, 13(3), pp. 213–223. Available at: <https://doi.org/10.1002/aps.1499>.

Lindekilde, L., Bertelsen, P. and Stohl, M. (2016) 'Who Goes, Why, and With What Effects: The Problem of Foreign Fighters from Europe', *Small Wars & Insurgencies*, 27(5), pp. 858–877. Available at: <https://doi.org/10.1080/09592318.2016.1208285>.

Lindemann, S. and Wimmer, A. (2018) 'Repression and refuge: Why only some politically excluded ethnic groups rebel', *Journal of Peace Research*, 55(3), pp. 305–319. Available at: <https://doi.org/10.1177/0022343317747337>.

Lobato, R.M. (2017) 'Cuestionario de opresión percibida reducido (R-OQ)'. Available at: <https://doi.org/None>.

- Lobato, R.M. *et al.* (2018) 'From Oppression to Violence: The Role of Oppression, Radicalism, Identity, and Cultural Intelligence in Violent Disinhibition', *Frontiers in Psychology*, 9, p. 1505. Available at: <https://doi.org/10.3389/fpsyg.2018.01505>.
- Lombardi, M., Ragab, E. and Chin, V. (2014) *Countering Radicalisation and Violent Extremism Among Youth to Prevent Terrorism*. IOS Press.
- Macdougall, A.I. *et al.* (2018) 'Different Strokes for Different Folks: The Role of Psychological Needs and Other Risk Factors in Early Radicalisation', *International Journal of Developmental Science*. Edited by H. Scheithauer *et al.*, 12(1–2), pp. 37–50. Available at: <https://doi.org/10.3233/DEV-170232>.
- Mahfud, Y. and Adam-Troian, J. (2019) "'Macron demission!': Loss of significance generates violent extremism for the Yellow Vests through feelings of anomia", *Group Processes*, p. 17.
- MALIK, S.M. (2009) 'Horizontal Inequalities and Violent Conflict in Pakistan: Is There a Link?', *Economic and Political Weekly*, 44(34), pp. 21–24.
- McCauley, C. and Moskaleiko, S. (2008) 'Mechanisms of Political Radicalization: Pathways Toward Terrorism', *Terrorism and Political Violence*, 20(3), pp. 415–433. Available at: <https://doi.org/10.1080/09546550802073367>.
- Meierrieks, D., Krieger, T. and Klotzbücher, V. (2021) 'Class Warfare: Political Exclusion of the Poor and the Roots of Social-Revolutionary Terrorism, 1860-1950', *Defence and Peace Economics*, 32(6), pp. 681–697. Available at: <https://doi.org/10.1080/10242694.2021.1940456>.
- Meloy, J.R. (2018) 'The Operational Development and Empirical Testing of the Terrorist Radicalization Assessment Protocol (TRAP-18)', *Journal of Personality Assessment*, 100(5), pp. 483–492. Available at: <https://doi.org/10.1080/00223891.2018.1481077>.
- Meloy, J.R. and Genzman, J. (2016) 'The Clinical Threat Assessment of the Lone-Actor Terrorist', *Psychiatric Clinics of North America*, 39(4), pp. 649–662. Available at: <https://doi.org/10.1016/j.psc.2016.07.004>.
- Meloy, J.R. and Gill, P. (2016) 'The lone-actor terrorist and the TRAP-18.', *Journal of Threat Assessment and Management*, 3(1), pp. 37–52. Available at: <https://doi.org/10.1037/tam0000061>.

- Meloy, J.R. and Yakeley, J. (2014) 'The Violent True Believer as a "Lone Wolf" – Psychoanalytic Perspectives on Terrorism', *Behavioral Sciences & the Law*, 32(3), pp. 347–365. Available at: <https://doi.org/10.1002/bsl.2109>.
- Milani, L. (2017) *Youth, Trauma & Radicalization*. Futures Without Violence. Available at: https://www.futureswithoutviolence.org/wp-content/uploads/FWV_blueprint_7-Youth.pdf.
- Milla, M.N., Faturochman and Ancok, D. (2013) 'The impact of leader–follower interactions on the radicalization of terrorists: A case study of the Bali bombers', *Asian Journal of Social Psychology*, 16(2), pp. 92–100. Available at: <https://doi.org/10.1111/ajsp.12007>.
- Mitts, T. (2019) 'From Isolation to Radicalization: Anti-Muslim Hostility and Support for ISIS in the West', *American Political Science Review*, 113(1), pp. 173–194. Available at: <https://doi.org/10.1017/S0003055418000618>.
- Moccia, L. (2019) *Literature Review on Radicalisation*. 0.4. Rome (RM), Italy: Università degli Studi "Roma Tre". Available at: <https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5c2d85f61&appId=PPGMS>.
- Moyano, M. and Trujillo, H.M. (2014) 'Intention of activism and radicalism among Muslim and Christian youth in a marginal neighbourhood in a Spanish city / Intención de activismo y radicalismo de jóvenes musulmanes y cristianos residentes en un barrio marginal de una ciudad española', *Revista de Psicología Social*, 29(1), pp. 90–120. Available at: <https://doi.org/10.1080/02134748.2013.878571>.
- Naseer, R., Amin, M. and Maroof, Z. (2019) 'Countering Violent Extremism in Pakistan: Methods, Challenges and Theoretical Underpinnings', *NDU Journal*, 33, pp. 100–16.
- Naz, A. *et al.* (2013) 'Militancy: A Myth or Reality - An Exploratory Study of the Socio-Economic and Religious Forces Behind Militancy in Khyber Pakhtunkhwa, Pakistan', *Bangladesh e-Journal of Sociology*, 10(2).
- Nesser, P. (2012) 'Research Note: Single Actor Terrorism: Scope, Characteristics and Explanations', *Perspectives on Terrorism*, 6(6), pp. 61–73.
- Neumann, K., Arendt, F. and Baugut, P. (2018) 'News and Islamist Radicalization Processes: Investigating Muslims' Perceptions of Negative News Coverage of Islam', *Mass Communication and Society*, 21(4), pp. 498–523. Available at: <https://doi.org/10.1080/15205436.2018.1430832>.

Neumann, P.R. (2010) 'Prisons and terrorism radicalisation and de-radicalisation in 15 countries. London, England: ICSR, King's College London. Noricks, D'. Available at: <https://www.clingendael.org/sites/default/files/pdfs/Prisons-and-terrorism-15-countries.pdf>.

Neumann, P.R. (2013) 'The trouble with radicalization', *International Affairs*, 89(4), pp. 873–893. Available at: <https://doi.org/10.1111/1468-2346.12049>.

Neumann, P.R., Stoil, J. and Esfandiary, D. (2008) 'Perspectives on Radicalisation and Political Violence: Papers from the First International Conference on Radicalisation and Political Violence', *London: International Centre for the Study of Radicalisation and Political Violence* [Preprint].

Nilsson, M. (2019) 'Motivations for Jihad and Cognitive Dissonance – A Qualitative Analysis of Former Swedish Jihadists', *Studies in Conflict & Terrorism*, pp. 1–19. Available at: <https://doi.org/10.1080/1057610X.2019.1626091>.

Noor, S. and Hussain, D. (2010) 'Women Radicalization-An Empirical Study', *Pakistan Institute for Peace Studies*, pp. 2–9.

Obaidi, M. *et al.* (2019) 'Group-Based Relative Deprivation Explains Endorsement of Extremism Among Western-Born Muslims', *Psychological Science*, 30(4), pp. 596–605. Available at: <https://doi.org/10.1177/0956797619834879>.

Oppetit, A. *et al.* (2019) 'Do Radicalized Minors Have Different Social and Psychological Profiles From Radicalized Adults?', *Frontiers in Psychiatry*, 10, p. 644. Available at: <https://doi.org/10.3389/fpsy.2019.00644>.

Oxford Poverty and Human Development Initiative (2021) *Global MPI Country Briefing 2021: Pakistan (South Asia)*. University of Oxford. Available at: https://ophi.org.uk/wp-content/uploads/CB_PAK_2021.pdf.

Ozer, S. and Bertelsen, P. (2019) 'Countering radicalization: An empirical examination from a life psychological perspective.', *Peace and Conflict: Journal of Peace Psychology*, 25(3), pp. 211–225. Available at: <https://doi.org/10.1037/pac0000394>.

Pakistan Bureau of Statistics (2017) *Final Results (Census-2017)*. Available at: <https://www.pbs.gov.pk/content/population-census> (Accessed: 30 July 2022).

Pakistan Economic Survey 2017-18 (2018). Islamabad, Pakistan: Finance Division, Government of Pakistan, p. 248. Available at: https://www.finance.gov.pk/survey/chapters_18/Economic_Survey_2017_18.pdf (Accessed: 31 October 2021).

Panayotov, B. (2019) 'Crime and terror of social exclusion: The case of 13 imams in Bulgaria', *European Journal of Criminology*, 16(3), pp. 369–387. Available at: <https://doi.org/10.1177/1477370819829650>.

Papageorgiou, C. (2002) 'Trade as a threshold variable for multiple regimes', *Economics Letters*, 77(1), pp. 85–91. Available at: [https://doi.org/10.1016/S0165-1765\(02\)00114-3](https://doi.org/10.1016/S0165-1765(02)00114-3).

Pasha, H.A. (2021) *Charter of the Economy: Agenda for Economic Reforms in Pakistan*. Friedrich-Ebert-Stiftung (FES). Available at: <https://pakistan.fes.de/e/charter-of-the-economy>.

Pauwels, L. and Schils, N. (2016) 'Differential Online Exposure to Extremist Content and Political Violence: Testing the Relative Strength of Social Learning and Competing Perspectives', *Terrorism and Political Violence*, 28(1), pp. 1–29. Available at: <https://doi.org/10.1080/09546553.2013.876414>.

Pauwels, L.J.R. and Heylen, B. (2017) 'Perceived Group Threat, Perceived Injustice, and Self-Reported Right-Wing Violence: An Integrative Approach to the Explanation Right-Wing Violence', *Journal of Interpersonal Violence*, p. 0886260517713711. Available at: <https://doi.org/10.1177/0886260517713711>.

Pearson, E. (2016) 'The Case of Roshonara Choudhry: Implications for Theory on Online Radicalization, ISIS Women, and the Gendered Jihad: Gender and Online Radicalization', *Policy & Internet*, 8(1), pp. 5–33. Available at: <https://doi.org/10.1002/poi3.101>.

Pedersen, W., Vestel, V. and Bakken, A. (2018) 'At risk for radicalization and jihadism? A population-based study of Norwegian adolescents', *Cooperation and Conflict*, 53(1), pp. 61–83. Available at: <https://doi.org/10.1177/0010836717716721>.

Penagos-Corzo, J.C. *et al.* (2019) 'Psychometric Properties and Development of a Scale Designed to Evaluate the Potential of Predatory Violent Behavior', *Frontiers in Psychology*, 10, p. 1648. Available at: <https://doi.org/10.3389/fpsyg.2019.01648>.

- Pfundmair, M. *et al.* (2019) 'Pathways toward Jihadism in Western Europe: An Empirical Exploration of a Comprehensive Model of Terrorist Radicalization', *Terrorism and Political Violence*, pp. 1–23. Available at: <https://doi.org/10.1080/09546553.2019.1663828>.
- Pfundmair, M. *et al.* (2022) 'Pathways toward Jihadism in Western Europe: An Empirical Exploration of a Comprehensive Model of Terrorist Radicalization', *Terrorism and Political Violence*, 34(1), pp. 48–70. Available at: <https://doi.org/10.1080/09546553.2019.1663828>.
- Piazza, J.A. (2012) 'Types of Minority Discrimination and Terrorism', *Conflict Management and Peace Science* [Preprint]. Available at: <https://doi.org/10.1177/0738894212456940>.
- Pisoui, D. and Ahmed, R. (2016) 'Radicalisation Research - Gap Analysis', *Radicalisation Awareness Network (RAN)* [Preprint]. Available at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/docs/pages/201612_radicalisation_research_gap_analysis_en.pdf.
- Prats, M., Raymond, S. and Gasman, I. (2019) 'Religious Radicalization and Lone-Actor Terrorism: A Matter for Psychiatry?', *Journal of Forensic Sciences*, 64(4), pp. 1253–1258. Available at: <https://doi.org/10.1111/1556-4029.13992>.
- Rathore, M. and Basit, A. (2010) 'Trends and Patterns of Radicalization in Pakistan', *Conflict and Peace Studies*, 3(2), pp. 15–32.
- Renström, E.A., Bäck, H. and Knapton, H.M. (2020) 'Exploring a pathway to radicalization: The effects of social exclusion and rejection sensitivity', *Group Processes & Intergroup Relations*, 23(8), pp. 1204–1229.
- Rieger, D., Frischlich, L. and Bente, G. (2019) 'Dealing with the dark side: The effects of right-wing extremist and Islamist extremist propaganda from a social identity perspective', *Media, War & Conflict*, p. 1750635219829165. Available at: <https://doi.org/10.1177/1750635219829165>.
- Rink, A. and Sharma, K. (2018a) 'The determinants of religious radicalization: Evidence from Kenya', *Journal of Conflict Resolution*, 62(6), pp. 1229–1261.
- Rink, A. and Sharma, K. (2018b) 'The Determinants of Religious Radicalization: Evidence from Kenya', *Journal of Conflict Resolution*, 62(6), pp. 1229–1261. Available at: <https://doi.org/10.1177/0022002716678986>.

- Rodermond, E. and Weerman, F. (2021) 'The families of Dutch terrorist suspects: Risk and protective factors among parents and siblings', *Monatsschrift für Kriminologie und Strafrechtsreform*, 104(3), pp. 271–282. Available at: <https://doi.org/10.1515/mks-2021-0133>.
- Saeed, S. (2007) 'Pakistani nationalism and the state marginalisation of the Ahmadiyya community in Pakistan', *Studies in Ethnicity and Nationalism*, 7(3), pp. 132–152.
- Saif, L. (2007) 'Pakistan and SEATO', *Pakistan Journal of History and Culture*, 28(2), pp. 79–80.
- Saigol, R. (2010) 'Radicalization of state and society in Pakistan', *Heinrich Boll Stiftung Pakistan* [Preprint].
- Sajjad, F., Christie, D.J. and Taylor, L.K. (2017) 'De-radicalizing Pakistani society: the receptivity of youth to a liberal religious worldview', *Journal of Peace Education*, 14(2), pp. 195–214.
- SATP (2022) *Yearly Suicide Attacks Datasheet - Paksitan, South Asian Terrorism Portal (SATP)*. Available at: <https://www.satp.org/datasheet-terrorist-attack/suicide-attacks/pakistan> (Accessed: 29 October 2020).
- Schils, N. and Verhage, A. (2017) 'Understanding How and Why Young People Enter Radical or Violent Extremist Groups', *International Journal of Conflict and Violence (IJCV)*, 11, pp. a473–a473. Available at: <https://doi.org/10.4119/ijcv-3084>.
- Schmid, A. (2013) 'Radicalisation, De-Radicalisation, Counter-Radicalisation: A Conceptual Discussion and Literature Review', *Terrorism and Counter-Terrorism Studies* [Preprint]. Available at: <https://doi.org/10.19165/2013.1.02>.
- Schmid, A.P. (2014) 'Al-Qaeda's "single narrative" and attempts to develop counter-narratives: The state of knowledge', *The Hague: ICCT*, 26(2), pp. 208–225.
- Sedgwick, M. (2010) 'The Concept of Radicalization as a Source of Confusion', *Terrorism and Political Violence*, 22(4), pp. 479–494. Available at: <https://doi.org/10.1080/09546553.2010.491009>.
- Shortland, N. *et al.* (2017) 'The Interaction of Extremist Propaganda and Anger as Predictors of Violent Responses', *Journal of Interpersonal Violence*, p. 0886260517747599. Available at: <https://doi.org/10.1177/0886260517747599>.

Siddiq, A. (2009) 'Jihadism in Pakistan: The Expanding Frontier', *Journal of International Affairs*, 63(1), pp. 57–71.

Sieckelinck, S. *et al.* (2019) 'Transitional Journeys Into and Out of Extremism. A Biographical Approach', *Studies in Conflict & Terrorism*, 42(7), pp. 662–682. Available at: <https://doi.org/10.1080/1057610X.2017.1407075>.

Silke, A. (2008) 'Holy Warriors: Exploring the Psychological Processes of Jihadi Radicalization', *European Journal of Criminology*, 5(1), pp. 99–123. Available at: <https://doi.org/10.1177/1477370807084226>.

Silva, D.M.D. (2018) "'Radicalisation: the journey of a concept", revisited', *Race & Class*, 59(4), pp. 34–53. Available at: <https://doi.org/10.1177/0306396817750778>.

Sing, M. (2016) 'Dis/connecting Islam and terror: the "Open Letter to Al-Baghdadi" and the pitfalls of condemning ISIS on Islamic grounds', *Journal of Religious and Political Practice*, 2(3), pp. 296–318. Available at: <https://doi.org/10.1080/20566093.2016.1222735>.

Singay, K.A. (2020) 'Social Marginalisation and Scapegoating: A Study of Mob Lynching in Pakistan and India', *Pakistan Social Sciences Review*, pp. 526–536.

Singh, C. (Retd) H. (2010) *South Asia Defence and Strategic Year Book, 2010*. Pentagon Press.

South Asia Terrorism Portal (2022). Available at: <https://www.satp.org/> (Accessed: 23 June 2022).

Süß, C.-A. and Noor Baheige Aakhunzzada, A. (2019) 'The Socioeconomic Dimension of Islamist Radicalization in Egypt and Tunisia'.

Tahir, H., Rønningsdalen Kunst, J. and Lackland Sam, D. (2019) 'Threat, Anti-Western Hostility and Violence among European Muslims: The Mediating Role of Acculturation', *International Journal of Intercultural Relations*, 73, pp. 74–88. Available at: <https://doi.org/10.1016/j.ijintrel.2019.08.001>.

Tanoli, F. (2018) 'SOCIO-ECONOMIC FACTORS BEHIND RADICALIZATION: EVIDENCE FROM PAKISTAN', *NDU Journal*, 32, pp. 80–88.

Taylor, L. and Soni, A. (2017) 'Preventing radicalisation: a systematic review of literature considering the lived experiences of the UK's Prevent strategy in educational settings', *Pastoral Care in Education*, 35(4), pp. 241–252.

The Persecution of Ahmadis (2020) *Facts and Figures / Persecution of Ahmadiyya Muslim Community, The Persecution of Ahmadis*. Available at: <https://www.persecutionofahmadis.org/facts-in-figures/> (Accessed: 4 November 2020).

Troian, J. *et al.* (2019) 'Evidence for indirect loss of significance effects on violent extremism: The potential mediating role of anomia', *Aggressive Behavior*, 45(6), pp. 691–703. Available at: <https://doi.org/10.1002/ab.21863>.

Vasegh, S. (2009) 'Psychiatric Treatments Involving Religion: Psychotherapy from an Islamic Perspective', in H.G. Koenig and P. Huguelet (eds) *Religion and Spirituality in Psychiatry*. Cambridge: Cambridge University Press, pp. 313–314. Available at: <https://doi.org/10.1017/CBO9780511576843.020>.

Veldhuis, T. and Staun, J. (2009) *Islamist radicalisation: A root cause model*. Netherlands Institute of International Relations Clingendael The Hague.

Vergani, M. *et al.* (2018) 'The Three Ps of Radicalization: Push, Pull and Personal. A Systematic Scoping Review of the Scientific Evidence about Radicalization Into Violent Extremism', *Studies in Conflict & Terrorism*, pp. 1–32. Available at: <https://doi.org/10.1080/1057610X.2018.1505686>.

Wahab, S. and Hussain, A. (2021) 'Causes & Consequences of Terrorism in Khyber Pakhtunkhwa, Pakistan', *International Journal of Research*, 8(2), pp. 234–245.

Wahl, F. (2019) 'Political participation and economic development. Evidence from the rise of participative political institutions in the late medieval German Lands', *European Review of Economic History*, 23(2), pp. 193–213. Available at: <https://doi.org/10.1093/ereh/hey009>.

Yamin, S. and Malik, S. (2014) *Mapping conflict trends in Pakistan*. United States Institute of Peace Washington, DC.

Yousaf, F. (2019) 'Counter-Terrorism in Pakistan's "Tribal" Districts', *Peace Review*, 31(4), pp. 521–528. Available at: <https://doi.org/10.1080/10402659.2019.1800940>.

Yusuf, M. (2008) 'Prospects of youth radicalization in Pakistan', *The Saban Center for Middle East Policy at BROOKINGS*, 14(7), pp. 1–27.

Zahid, F. (2015) 'Tahir Saeen Group: higher-degree militants', *Pak Institute for Peace Studies* [Preprint].

Zaidi, M. (2010) 'A link between poverty & radicalization in Pakistan', *Pakistan Institute for Peace Studies* [Preprint].

Zaman, M.Q. (1998) 'Sectarianism in Pakistan: The radicalization of Shi 'i and Sunni identities', *Modern Asian Studies*, 32(3), pp. 689–716.

Zeb, K. and Ahmed, Z.S. (2019) 'Structural Violence and Terrorism in the Federally Administered Tribal Areas of Pakistan', *Civil Wars*, 21(1), pp. 1–24. Available at: <https://doi.org/10.1080/13698249.2019.1586334>.