



Bundesministerium
für Bildung
und Forschung

GEFÖRDERT VOM

Radikalisierende **Räume**

Measuring Susceptibility to Radicalization

Article VI in the publication series "Radicalizing Spaces"

Armin Küchler

January 2024¹

¹ Translation of Article VI of the publications series in German from August 2023



FH MÜNSTER
University of Applied Sciences



Institut für interdisziplinäre
Konflikt- und Gewaltforschung



UNIVERSITÄT
BIELEFELD

The project "Radicalization and Space"

The project " Radicalization and Space " funded by the BMBF is running from October 2020 to September 2024 at the Institute for Interdisciplinary Conflict and Violence Research at the University of Bielefeld and the Department of Social Work at FH Münster. The project aims to identify spatial configurations that foster (neo-salafist) radicalization. Additionally, a practical tool for community-oriented social work is being developed, which serves both the prevention of neo-salafist radicalization and intervention in the event of a locally active Salafist scene. To this end, three distressed neighborhoods in Germany are being carefully examined using intensive ethnographic work and interviews. All project results, including thematic podcasts, working papers, a video documentation, and other publications, are available for free on the website <https://radikalisierende-raeume.de/en/home/>.

Foreword

The BMBF-funded project network "Radicalizing Spaces" deals with the question of the extent to which spaces in the geographical, demographic and social sense promote or hinder processes of radicalization in the phenomenon of Islamist extremism. A key component of the project is the development of a reliable and valid measuring instrument to record individuals' potential Susceptibility to Radicalization.

Radicalization trajectories vary from individual to individual and are processual and non-linear. They result from a complex interplay of socialization, personality, structures and other external influences - radicalization is therefore a latent, not directly measurable construct. The development of a measurement instrument is therefore associated with considerable challenges (see Chapter 2 of this article). In the past, empirically validated susceptibility factors for radicalization were therefore primarily derived from retrospective studies of the biographies of people who had already been radicalized. There are hardly any studies that measure the susceptibility of individuals who have not yet become conspicuous (exception: Kurtenbach, Linßer & Weitzel 2020).

Armin KÜchler builds on the preliminary work of the authors mentioned above and develops individual items for the dimensions they identified as central (mistrust of democracy, discrimination, authoritarianism), which together form the index Susceptibility to Radicalization (SuRa). In his article, the author provides a transparent and elaborate description of how the susceptibility scale was constructed: Creation of an item pool based on theoretical considerations and findings from preliminary studies, reduction of the item pool in discussion rounds with experts, cognitive pre-testing with pupils and students and testing on a random sample. The author plausibly demonstrates how an exploratory factor analysis with oblique rotation and exclusion of items that load weakly on one factor was used to develop a coherent, final survey instrument. With the three-dimensional SuRa scale, the author has succeeded in presenting a reliable (Cronbach's $\alpha = .857$) and valid instrument for measuring Susceptibility to Radicalization - a research gap has been closed.

Janine Linßer

Table of contents

1.	Introduction.....	6
2.	Challenges in the empirical assessment of Susceptibility to Radicalization	6
2.1	Theoretical assumptions of Susceptibility to Radicalization	7
3.	Methodical approach.....	11
3.1.	Data basis	11
3.2.	Data preparation	14
4.	Scale development	15
4.1.	Scale construction	17
4.2.	Reliability test	21
4.3.	Validity.....	23
5.	External validation	25
6.	Conclusion and outlook	27
7.	Literature.....	29
8.	Appendix A.....	33
9.	Appendix B.....	37

Abstract

Objective

The dynamics of radicalization pose a threat, if not the central threat, to the fabric of modern and democratic societies. However, there is a lack of valid and reliable ways to measure *Susceptibility to Radicalization* in standardized population surveys. This article aims to make a substantial contribution to filling this research gap.

Structure of the Susceptibility to Radicalization Scale

Susceptibility to Radicalization can be divided into three central subscales: *Discrimination*, *Distrust of Democracy*, and *Authoritarianism*. These subscales comprise a total of twelve items. A fourth dimension relates to phenomenon-specific *ideologization*, which refers to a meaning-giving mechanism that may be present in varying degrees. In this article, this concept is explained in passing in terms of extreme religious attitudes and measured with five items. The response categories comprise a 5-point rating scale ranging from "*strongly agree*" (5) to "*somewhat agree*" (4), "*partly/somewhat agree*" (3), "*somewhat disagree*" (2) and "*strongly disagree*" (1).

Fundamentals and Structure

The identification of radicalization tendencies is an important societal concern. However, there are currently no satisfactory instruments that can be used in general population surveys to adequately capture such vulnerability. Based on the theoretical assumptions and considerations of the "Vulnerability to Radicalization" project, the three vulnerability dimensions of discrimination, distrust of democracy, and authoritarianism were identified. An extensive pool of items was compiled by reviewing a large number of proven measurement methods for these dimensions. These items were successively reduced and tested for comprehensibility through expert discussions and various testing procedures in order to construct a survey instrument that is as valid and reliable as possible. The final development and evaluation of this Susceptibility to Radicalization scale was carried out on the basis of a general and randomly selected population survey in a large German city.

1. Introduction

Radicalization involves a process of increasing distancing from the norms and values of social common sense (Zick & Böckler, 2015). Central to this justification of deviant behavior is legitimization through ideological justifications (Kurtenbach, 2021). This means that radicalization can only be understood in the context of the prevailing social system (Zick, 2017, p. 23). Accordingly, individuals or organizations are considered radical if they demand far-reaching social and political changes, even if they respect the current system and do not necessarily consider violence a legitimate means to achieve their goals (Frindte et al., 2011, p. 30). In terms of the individual, radicalization is a latent construct that can be individually expressed. This means that the manifestation of radicalization cannot be measured directly, but only indirectly through other behaviors and attitudes. A number of different approaches to radicalization therefore take a qualitative approach to understanding the underlying structures of meaning. For example, the biographies of radicalized individuals are often used as a tried and tested method. This approach can be an illuminating first step towards a substantive exploration of the phenomenon, but multivariate analyses are a proven approach for working out generalizable effects, dynamics and (causal) mechanisms (Skillicorn et al., 2012).

The remainder of this paper discusses the challenges of assessing radicalization, as well as different theoretical assumptions and the resulting dimensions that may be useful in measuring Susceptibility to Radicalization. In addition, the methodological construction of the scale is presented in detail. In the project, we argue for the establishment of a specific measure of Susceptibility to Radicalization that is upstream of, but at the same time inextricably linked to, the specific process of radicalization. This approach is based on extensive literature research, exchange at international conferences, and discussions with experts in the field as well as people from preventive practice. More specifically, the operationalization of Susceptibility to Radicalization is examined on the basis of four different dimensions. Discrimination, mistrust of democracy, and authoritarianism provide the central and theoretically well-founded contribution to the latent construct of Susceptibility to Radicalization, which is expanded to include the dimension of ideological motivation - in our case, forms of extreme religiosity.

2. Challenges in the empirical assessment of Susceptibility to Radicalization

As a fuzzy concept, radicalization has some definitional parallels to concepts such as extremism or terrorism (Abay Gaspar et al., 2018, p. 3), which, however, tend to hinder a clear operationalization project. A central aspect is that radicalization is, on the one hand, a dynamic

process and, on the other hand, a situation from which people in a free and democratic constitutional order should be protected. As a result, the concept of radicalization is volatile, and answers to the radicalization items can be expected to be highly socially desirable, since normatively deviant - radical - attitudes or behavior patterns can be assumed. The measurement of a person's current level of radicalization is therefore conceptually unsatisfactory and unreliable. However, there are measurable signs that can indicate the possible onset of the radicalization process (see Figure 1). For this reason, the measurement of Susceptibility to Radicalization will be approached in the further course of operationalization.

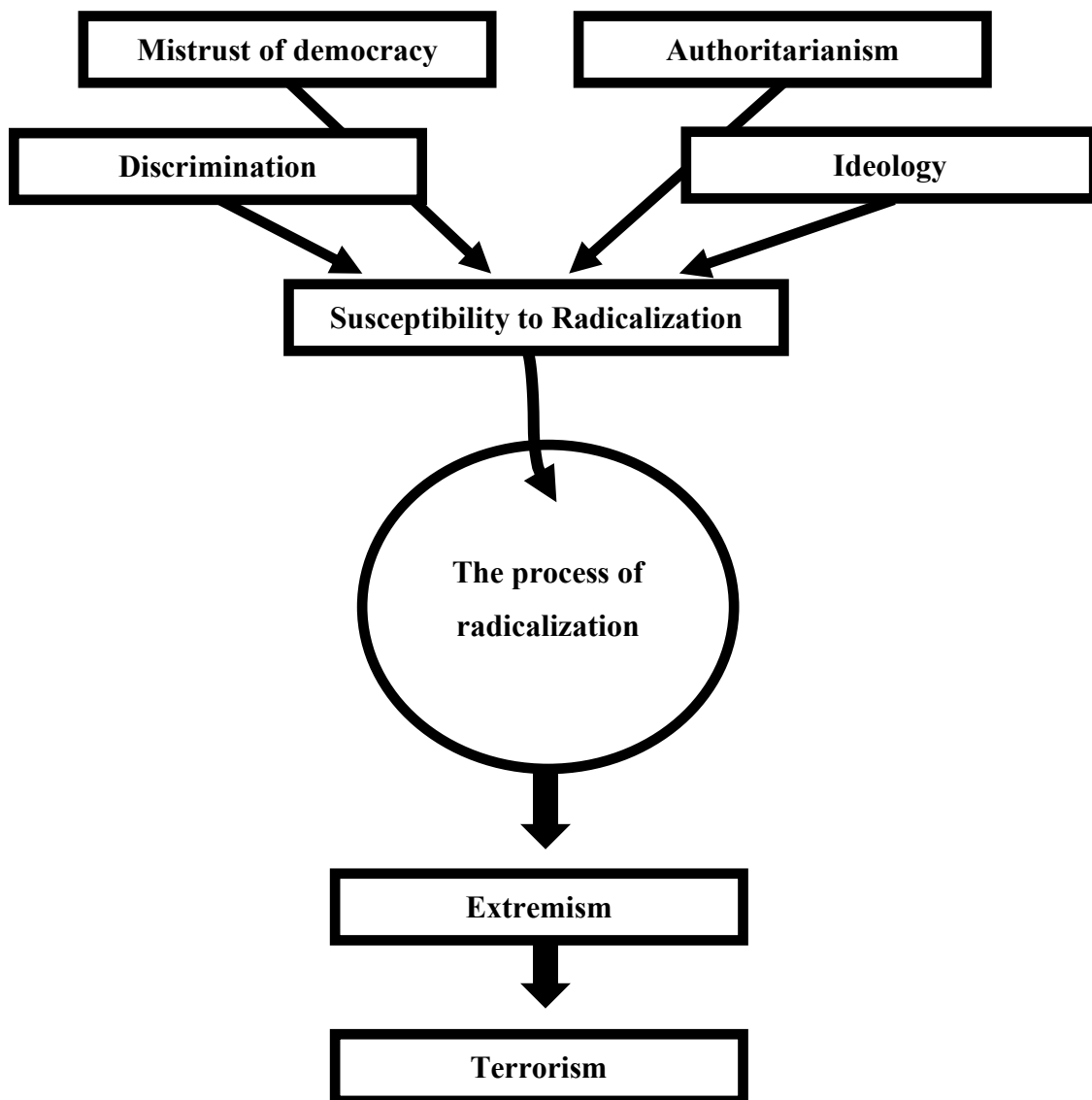


Illustration 1 Vulnerability to radicalization in the process of radicalization

2.1 Theoretical assumptions of Susceptibility to Radicalization

Due to the theoretical difficulty of recording direct forms of radicalization in standardized population surveys, an extensive qualitative study analyzed various attitudes and

positions of young people in order to gain possible insights into radicalization in the area of the neo-Salafist phenomenon (Kurtenbach et al., 2020). The study and the review of scientific literature showed that, for example, the holistic interpretation of religious fundamentalism with political aspirations (Lyons-Padilla et al., 2015; Rezaei & Goli, 2010), the support of fundamentalist groups, as well as a problematized perception of Islam in political and social discourses (Slootman et al., 2006) can be regarded as possible characteristics of radicalization (Kurtenbach et al., 2020, p. 29). However, the religiosity of young people per se and a deeper religious self-image or political understanding do not in themselves contribute to radicalization or even the acceptance of violence (Kurtenbach et al., 2020; Weiss et al., 2016). Religiousness and a conservative orientation of faith - regardless of denomination - are therefore something that democratic societies must be able to withstand. However, religious faith can also be used as a political instrument and lead to an ideological charge of individual actions, especially when religiosity is used to reconstruct a lost identity (Dalgaard-Nielsen, 2010; Kurtenbach et al., 2020; Weiss et al., 2016). Religion becomes a political ideology when religious values drift into extremist tendencies and core social norms are challenged and shaped as alternatives in line with the respective opposing worldview.

The mechanisms that promote such religious fundamentalism in relation to Islam are diverse and range from a holistic interpretation of faith with a political orientation (Lyons-Padilla et al., 2015; Rezaei & Goli, 2010), to support and solidarity with fundamentalist groups (Lyons-Padilla et al., 2015), to the media perception of Islam as a problematic issue in political discourse (Slootman et al., 2006). Once the point is reached where religion has become a political ideology, religious extremism differs little in its social implications and mechanisms from other political extremisms, such as forms of right-wing or left-wing extremism. In the theoretical derivation of Susceptibility to Radicalization, each of these diffuse subcategories of extremism fulfills an ideological moment of meaning that is central to the actual direction of any subsequent radicalization process. On the one hand, it can be prejudices against "the West", the devaluation of other groups of people through, for example, anti-Semitism or antiziganism, and, on the other hand, a general acceptance of ideologically motivated group violence that demonstrates an extremist affinity (Frindte et al., 2011; Lyons-Padilla et al., 2015).

The high degree of overlap with the attitudinal characteristics of an extremist ideology is, not surprisingly, a dimension of Susceptibility to Radicalization. What is perhaps more surprising is that while it is sufficient for susceptibility, it does not appear to be necessary. In contrast, the dimensions of *perceived discrimination*, *distrust of democracy*, and *authoritarianism* are necessary.

Perceived experiences of discrimination describe the experience or observation of disadvantage, unequal treatment or devaluation based on characteristics such as gender, race, ethnicity, sexual or religious orientation. These experiences can occur at both the individual and structural levels and are often perceived as very distressing for the individual. Research shows that perceived experiences of discrimination can have a negative impact on mental health and can lead to feelings of powerlessness and limited agency (Slootman et al., 2006; von Lersner et al., 2015). It is therefore reasonable to assume that experiences of discrimination are a central mechanism in Susceptibility to Radicalization. Feelings of disadvantage and exclusion can lead individuals to seek out a group or community in which they feel accepted and understood. Extremist groups in particular exploit this feeling to recruit people and spread their ideologies. Perceived discrimination is characterized by devaluations based on a person's German or non-German origin. These devaluations can be based on economic, social or interpersonal experiences.

Democratic distrust describes a phenomenon in which people have a strong distrust of politics and political processes. This mistrust can arise for a variety of reasons, such as disappointment over unfulfilled political promises or the feeling that political decisions are not made in the interests of the population or a particular segment of the population. People often feel unrepresented and that their voices are not heard (Richter et al., 2018; Zick et al., 2019, 2020; Ziemes & Jasper, 2017). This fuels social dynamics that lead to a loss of trust in democracy and the political process. In addition, further spirals of alienation can contribute to segments of the population becoming estranged from political elites and viewing them as corrupt and illegitimate. Such developments are often based on longer-term processes in which society has been repeatedly disappointed, for example by major political scandals or profoundly wrong decisions. Distrust of democracy is problematic for society as a whole because it undermines the functioning of democracy and can fuel alienation between those in power and those governed. For individuals or groups who feel this way, it provides a gateway to the general erosion of norms and values in civil society. It can also be assumed that distrust in democracy increases the openness to alternative orientations in the form of extremist ideologies (Slootman et al., 2006). On the one hand, the operationalization sought here focuses on aspects such as the general assessment of trust in state institutions as physical representatives. On the other hand, it also focuses on evaluations of political personalities and parties that symbolize a real democratic process with which people do not identify.

Closely related to distrust of democratic attitudes is openness to and acceptance of aspects of authoritarianism. Authoritarianism is described in social psychology, for example by

Adorno (1950) and the anti-democratic personality, as a high willingness to conform to norms and a tendency to subjugate or dominate weaker people. A widely used concept for measuring authoritarianism beyond social psychology, developed by Altemeyer (1996), includes authoritarian aggression and submissiveness as well as conventionalism (Beierlein et al. (Beierlein et al., 2014). These individual trade-offs are central factors that allow an opening for forms of authoritarianism and have been tested in explaining right-wing extremist attitudes (Beierlein et al., 2014, p. 5).

Abstracting from this definition of authoritarianism, it can be said that authoritarianism formally refers to the individual's acceptance of a strong concentration of power and decision-making authority in the hands of a few or individual persons. It is usually measured in terms of trust in the leadership qualities of a particular group or individual, and is fed on the one hand by disillusionment with overly complex and cumbersome democratic processes. On the other hand, there is also an above-average desire to conform to prevailing social norms and expectations. This desire can manifest itself, for example, in demands for a more drastic crackdown in the form of tougher laws. The latter corresponds to a return to traditional values, a mechanism common to both religious fundamentalism (Kurtenbach et al. (Kurtenbach et al., 2020, p. 14) and right-wing extremist worldviews (Altemeyer & Altemeyer, 1996). In addition to these discussed aspects, obedience and respect for superiors are also important characteristics of authoritarian traits. In contrast, recourse to traditional values and blind obedience are not helpful in understanding left-wing extremism. The universality of authoritarianism is therefore limited when it comes to understanding Susceptibility to Radicalization. It should be noted that left-wing extremist attitudes are characterized by different social mechanisms and dynamics than religious or right-wing extremism¹. It is therefore essential to contextualize the left-wing phenomenon under study. It is also important to emphasize that the aim is not to measure complete forms of authoritarianism, but merely to capture disruptions of an authoritarian sensibility.

To conclude these theoretical explanations, it should be emphasized that the Susceptibility to Radicalization defined here is intended to measure the tendency and inclination with which groups or individuals are more likely to turn to a process of radicalization. However, the difference between self-reported attitudes and the actual behavior of an individual or group remains (Frindte et al., 2011, p. 119). Sufficient nomological construct validity does not resolve this issue, as it is still a matter of agreement or disagreement with

¹ For a discussion of forms of *left-wing authoritarianism*, please refer to Conway III et al. (2023) and Costello et al. (2022) should be referred to.

attitudinal characteristics or intentions to act, not actual behavior. In the following, we will first discuss the data base and then go into more detail about the implementation of the theoretical assumptions in the development and construction of the scale.

3. Methodical approach

3.1. Data basis

In order to provide statistically sound arguments for the construction of the vulnerability scale in a realistic environment, an extensive pre-test was conducted in Bremen in January and February 2022. In a first preparatory phase, the Bremen Statistical Office was contacted in order to gain access to official statistical data. This information was used as small-scale information on the urban area and as classification variables. The general procedure can be outlined as follows: The city of Bremen consists of 88 districts. The following information was obtained from official statistics for these districts:

- *Youth ratio*
- *Share of single parents*
- *Unemployed (SGB III and SGB II)*
- Increase or decrease in *voter turnout* compared to the previous election
- *Muslim migration background*.

The aim was not only to approximate a representative distribution of Bremen based on gender and age, but also to control for contextual effects resulting from spatial differences. Purely industrial areas or comparable districts with no real residential population were excluded from the analysis. In order to reduce the size and effort of the pre-test, a limited sample was drawn from the 88 districts in Bremen. Initially, the focus was on the district of Gröpelingen and three of its five neighborhoods, namely Lindenhof, Ohlenhof, and Gröpelingen. The underlying assumption is that Gröpelingen is a highly disadvantaged district, measured, for example, by the unemployment rate. This focus was chosen to account for the influence of such experiences of deprivation. Second, a simple random sample of unrestricted neighborhoods was drawn from the rest of the city. This sample included the districts of Farge, Utbremen, Barkhof, Fähr-Lobbendorf, Sebaldsbrück, Mahndorf and Gete. Figure 1 shows the geographical distribution of the surveyed neighborhoods, while Table 1 shows the social structure data.

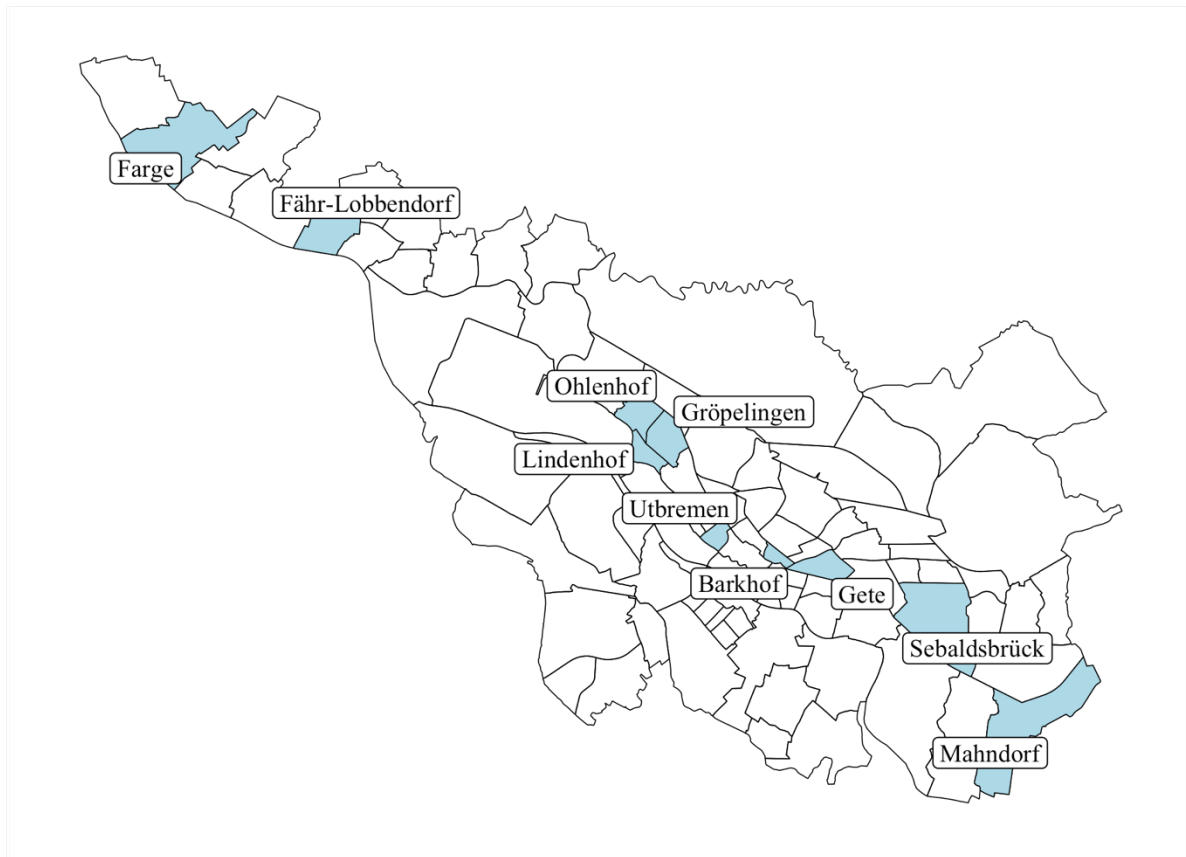


Figure 2 Parts of Bremen under investigation

Table 1 Data on the social structure of the districts surveyed in Bremen

District	Youth quotient (%)	Alone parents (%)	Unemployed (%)	Electoral participation (%)	Migration back. (%)
Gröpelingen	33,2	39,1	27,8	-1,1	35,8
Lindenhof	28,7	29,1	24,9	0,4	32,6
Ohlenhof	32,8	30,5	27,9	-0,1	36,9
Farge	27,9	29,8	13,2	3,7	9,8
Utbremen	26,7	30,1	13,9	1,9	25,2
Barkhof	15,7	18,6	4,7	3,5	5,6
Fähr-Lobbendorf	24,9	33,3	17,4	0,9	20,3
Sebaldsbrück	24,8	23,9	10,0	1,7	19,9
Gete	21,7	19,6	4,7	2,5	5,1
Mahndorf	29,8	23,6	8,2	3,1	16,2

Note: Data is based on a request to the Bremen State Statistical Office from 2021. A detailed description of the composition of the variables can be found in the main text.

In these districts, flyers were used to encourage digital participation in the general population questionnaire. The goal was to distribute a flyer to every household in the area.

Approximately 15,000 survey appeals were distributed. There was no reminder to participate in the survey, which resulted in a very low response rate of 2.35%. Table 2 provides a breakdown of the response rate by district. Ten cases were excluded from further analysis, so an opportunity sample with an n of 343 respondents is used in the following.

Table 2 Response rate of survey participants by district

District	<i>N</i>	Share (%)
Gröpelingen	58	16,91
Lindenhof	14	4,08
Ohlenhof	7	2,04
Farge	15	4,37
Utbremen	9	2,62
Barkhof	57	16,62
Fähr-Lobbendorf	56	16,33
Sebaldsbrück	2	0,58
Gete	57	16,62
Mahndorf	17	4,96
in another district	22	6,41
No district named	29	8,45
<i>Total</i>	343	100

Note: Data pre-test Bremen, adjusted ($n = 343$).

The survey revealed that of these 343 participants, 59.5% were male and 40.5% were female. In addition, 80.2% of respondents indicated that they were born in Germany, while 9.3% indicated another country of birth. The remaining 36 participants did not answer this question. Regarding age, the analysis showed that the mean age was about 56 years, with the youngest person being 17 years old and the oldest being 86 years old. The standard deviation was 14.1 years. Regarding the highest level of education, 37.3% of the participants stated that they had a university degree, 43.7% had a high school diploma or entrance qualification for a university of applied sciences, and only 5.2% had no high school diploma or only a lower secondary school diploma. The analysis of the survey data also shows that 26.8% of the respondents reported that they were in full-time employment, while 17.2% reported that they were in part-time employment. 22.2% were unemployed or looking for work and 21.3% were retired or on pension. In summary, the Bremen survey provides a wide range of information on gender, country of birth, age, education and current employment. Table 3 provides a complete overview of the socio-demographic characteristics that describe the sample.

Table 3 Descriptive statistics of socio-demographic characteristics

<i>Feature</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Gender					
<i>Female</i>	139	.40	.49	0	1
<i>Male</i>	204	.59	.49	0	1
Origin					
<i>Born in Germany</i>	275	.80	.39	0	1
<i>Not born in Germany</i>	32	.09	.29	0	1
<i>Not specified</i>	36	.10	.30	0	1
Religious community					
<i>Christian</i>	160	.46	.49	0	1
<i>Muslim</i>	4	.01	.10	0	1
<i>Not a religious community</i>	179	.52	.50	0	1
Age	343	55.91	14.14	17	86
Highest level of education					
<i>Still at school</i>	1	.00	.05	0	1
<i>No degree</i>	2	.00	.07	0	1
<i>Hauptschule o. v.</i>	16	.04	.21	0	1
<i>Realschule o. v.</i>	46	.13	.34	0	1
<i>Abitur o. v.</i>	150	.43	.49	0	1
<i>(Professional) university degree</i>	128	.37	.48	0	1
Current activity					
<i>Full-time employed</i>	92	.26	.44	0	1
<i>Part-time employed</i>	59	.17	.37	0	1
<i>Marginally employed</i>	18	.05	.22	0	1
<i>Unemployed/ job seeker</i>	76	.22	.41	0	1
<i>Housewife/husband</i>	11	.03	.17	0	1
<i>Pension</i>	73	.21	.40	0	1
<i>School</i>	3	.00	.09	0	1
<i>Study</i>	8	.02	.15	0	1
<i>Education</i>	3	.00	.09	0	1

Note: Data pre-test Bremen, adjusted ($n = 343$).

3.2. Data preparation

Since there was no general obligation to respond to the survey, there were always some missing values. However, the occurrence of missing data did not indicate a structural nature, so it is assumed to be missing at random (Rubin, 1987). Thus, the missing values are generated randomly and independently of the observed or unobserved variables. This means that the missing data are not related to other variables or the sample itself, but can be attributed to other reasons. Based on this fact, it was decided to replace missing data by multiple imputation. This

was done using the missRanger package in R. This function uses the random forest algorithm to impute missing values in a data set. The procedure is based on a random forest prediction for each missing value and estimates a distribution for the imputed value.

4. Scale development

Following the four-step procedure for scale development in Netemeyer et al. (2011), the theoretical considerations outlined in Section 2.1 served as the basis for the definition of an initial pool of questions in the following chapter. To this end, an extensive search was conducted for survey instruments that could be assigned to aspects of the dimensions discussed. Among other things, the use of easily understandable terms, the avoidance of long and complex questions, and the avoidance of double negatives were considered (Porst, 2014, p. 99 ff.). Subsequent discussions with experts led to a first pre-selection of items, so that 24 questions were considered for a cognitive pre-test and in-depth interviews with pupils from the Münsterland region and students from the Münster University of Applied Sciences. The resulting experiences and modifications were incorporated into the preparation of the convenience sample in Bremen described in section 3.1. Six questions were developed for each of the dimensions of perceived discrimination and distrust of democracy, four for the authoritarianism subscale, and eight for extreme religiosity; see Table 4 for a first descriptive overview of the items and questions. The aim was to reduce the number of questions per dimension to four in order to avoid unnecessarily increasing the complexity of the overall scale. The response options were a five-point Likert scale ranging from *strongly disagree*, *somewhat disagree*, *somewhat/partially agree*, *somewhat agree*, and *strongly agree*. In preparation for scale construction, all positively worded items of a given dimension were recoded so that all variables had the same direction. In the further course of the scale construction the following procedure was followed: Since only four respondents identified with a Muslim denomination and 160 with a Christian denomination, the questions on forms of extreme religiosity can at best examine Christian fundamentalism. A connection to the phenomena of Islamism or neo-Salafism cannot be established with this data base. This is not a serious problem, as it was already discussed in section 2.1 that the ideological dimension is a sufficient but not a necessary condition for Susceptibility to Radicalization. Another aspect that needs to be addressed is the fact that 179 people did not identify with any religious community, which means that the sample that can be used to construct the index on the basis of the four dimensions shrinks to $n = 164$ people. Therefore, the scale construction of the Susceptibility to Radicalization (SuRa) primarily refers to the three dimensions of forms of perceived discrimination, forms of mistrust

of democracy, and forms of authoritarianism, thus excluding a precise phenomenon-specific orientation. An analogous analysis of the SuRa index with forms of extreme religiosity can be found in a reduced version in Appendix A.

Table 4 Descriptive statistics of the SuRa questions by dimension

<i>Question</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
<i>^a Forms of extreme religiosity</i>					
Q15_1 Following the commandments of my religion is more important to me than the laws of the state in which I live.	164	1.47	.81	1	5
^b Q15_2 I can practise my religion within the framework of the laws of the state.	164	4.83	.47	2	5
Q15_3 Other religions also have their justification and must be respected.	164	4.50	.88	1	5
Q15_4 My religion is the only true religion. There should be no other besides it.	164	1.26	.75	1	5
Q15_5 You can be friends with people who belong to a different religion.	164	4.84	.51	1	5
Q15_6 People of other faiths are sinners, so you can't be friends with them.	164	1.06	.45	1	5
Q15_7 Believers of other religions are worth less.	164	1.15	.59	1	5
^b Q15_8 Even someone who is not religious can be a good person.	164	4.95	.24	3	5
<i>^c Forms of perceived discrimination</i>					
Q16_1 I have already been treated unfairly, insulted or abused because of my non-German origin.	343	2.03	1.16	1	5
Q16_2 When I compare myself with others in Germany, I am treated fairly on the whole.	343	4.02	.81	1	5
Q16_3 The economic situation of people of non-German origin living here is worse than the economic situation of people of German origin.	343	2.18	1.05	1	5
Q16_4 There is no significant difference between the economic situation of people of non-German origin and the economic situation of people of German origin.	343	2.53	.94	1	5

Continuation of the table on the next page

Continuation of the previous table

Question	N	Mean	SD	Min	Max
Q16_5 I often have the feeling that I am treated worse than others because of my non-German origin.	343	1.50	.94	1	5
Q16_6 People of non-German origin are generally treated in the same way as everyone else.	343	2.86	.96	1	5
Forms of mistrust of democracy					
Q17_1 I think democracy is generally a good form of government.	343	4.76	.60	1	5
Q17_2 There are better forms of government than democracy.	343	1.45	.79	1	5
Q17_3 All in all, I trust state institutions such as authorities, courts and universities in Germany.	343	3.90	.85	1	5
Q17_4 You can't be too careful with government bodies and institutions.	343	2.26	.90	1	5
Q17_5 All in all, I feel well represented by the politicians in the Bundestag.	343	2.92	.93	1	5
Q17_6 The democratic parties talk everything up and don't solve the problems.	343	2.80	.98	1	5
Forms of authoritarianism					
Q18_1 We need a strong political personality to make decisions.	343	2.79	1.05	1	5
Q18_2 I think it would be good if certain crimes were punished more severely in Germany.	343	3.40	1.04	1	5
Q18_3 By and large, the current laws on the punishment of criminal offenses in Germany are sufficient.	343	3.50	1.06	1	5
Q18_4 The most important qualities someone should have are obedience and respect for their superiors.	343	2.32	.99	1	5

Note: Data pre-test Bremen, adjusted (n = 343).

^a Questions on *forms of extreme religiosity* were only shown to people who had assigned themselves to a religious community.

^b Range of the response scale not fully exhausted.

^c Wording is adapted to *German* or *non-German origin* in the appropriate places depending on origin (measured by the parents' place of birth).

4.1. Scale construction

The basic SuRa index was constructed using exploratory factor analysis (EFA) with principal component factor (PCF) in Stata 17. EFA is a multivariate statistical method for

identifying latent variables that explain variation in a set of observed variables (Cudeck, 2000). It aims to determine the number of factors necessary to capture the common variance in the observed variables. EFA is used in various disciplines to investigate complex relationships between variables and to reduce the dimensionality of survey data. It is therefore a useful tool for data reduction and for identifying structures in collected data sets. The EFA used here was performed with oblique rotation using the Promax method. Oblique rotation is a method of factor rotation that allows the individual factors to correlate with each other. In contrast to orthogonal rotation, in which the factors are considered independent of each other, oblique rotation allows the factors to be related to each other. Oblique rotation is used when the factors are assumed to be interdependent rather than independent. The choice of oblique rotation is based on the theoretical assumption that the individual dimensions are not absolutely distinct from one another, since forms of authoritarianism can certainly correlate with forms of distrust of democracy, but also with forms of perceived discrimination. Table 1 in Appendix B shows the correlations between the individual items of each dimension.

All items of the three dimensions were used together in the EFA. The first computed EFA without rotation yielded four factors based on the Kaiser criterion with an eigenvalue >1 . Thus, each of these four extracted items explains more variance than a single variable on its own. An examination of the scree plot is more ambiguous and even more suggestive of a two-factor solution, as a clear bend can be seen after the second factor, see Figure 3. This means that the eigenvalue of the factor before this point is very high and the subsequent factors decrease rapidly. This kink in the "elbow" is therefore an indicator of the point at which the addition of more factors makes only a small additional contribution to the explanation of the variance. Thus, the Kaiser criterion and the scree plot provide ambiguous conclusions regarding the choice of the number of factors to be extracted.

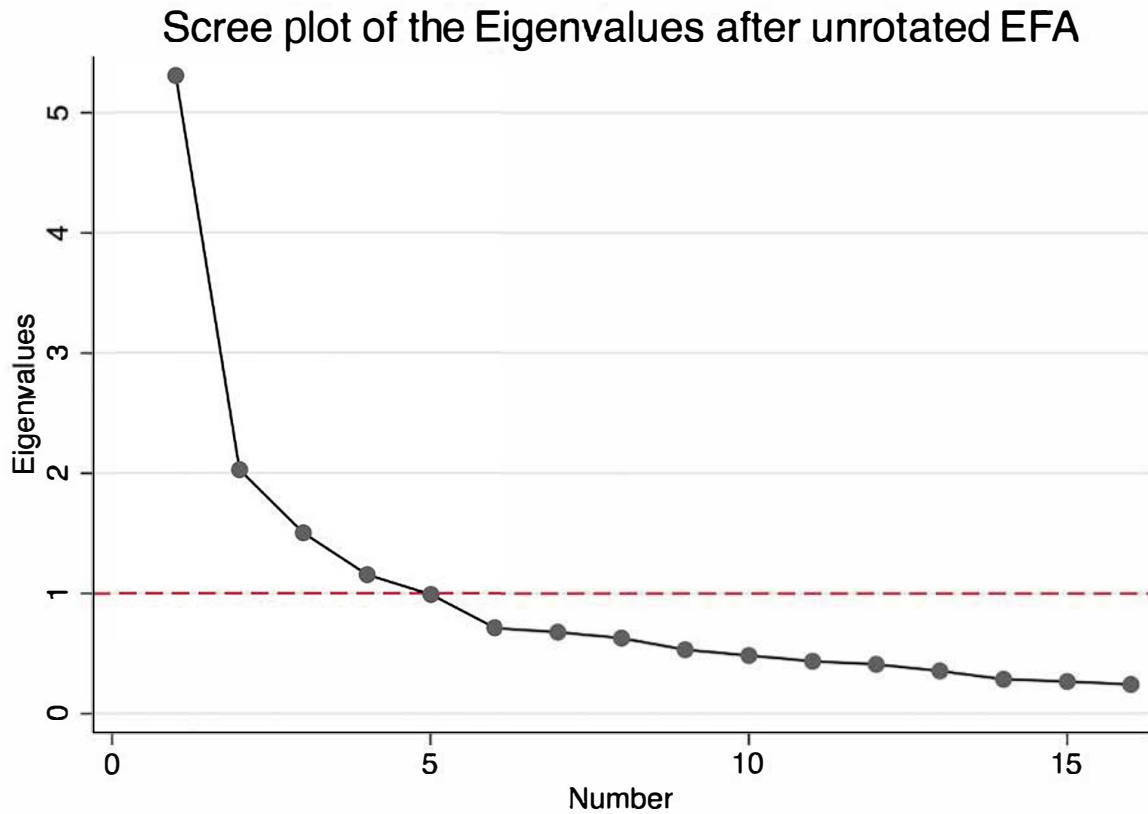


Figure 3 Scree plot of eigenvalues after non-rotated EFA

The factor loadings in Table 5 represent the relationship between the observed variables and the extracted factors after oblique rotation. This also results in a four-factor solution with modified eigenvalues. With an eigenvalue >3 , the first three factors explain significantly more variance than the fourth factor, which has an eigenvalue of 1.78. In general, a higher loading indicates a stronger relationship between the variable and the factor. For a better overview, loadings $<.4$ have been hidden. The uniqueness values in the last column show the proportion of the variance of each variable that is not explained by the common factors. A high uniqueness value - close to 1 - means that a large proportion of the variance of a variable is unique and cannot be explained by the common factors. In summary, we can say that the uniqueness of each variable is moderate, which allows us to conclude that all variables make a significant contribution to the factors.

Table 5 Factor loadings and eigenvalues of the rotated four-factor solution

<i>Variable</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Factor 4</i>	<i>Uniqueness</i>
Q16_1		0.8165			0.3533
Q16_2		0.5288			0.4388
Q16_3		0.7529			0.4105
Q16_4				0.8633	0.2895
Q16_5		0.8191			0.2145
Q16_6				0.8084	0.2947
Q17_1	0.6637				0.5586
Q17_2	0.6190				0.5915
Q17_3	0.7718				0.3845
Q17_4	0.7422				0.4264
Q17_5	0.7768				0.3370
Q17_6	0.7471				0.3298
Q18_1			0.6817		0.4089
Q18_2			0.8444		0.2778
Q18_3			0.8174		0.2615
Q18_4			0.6094		0.4380
<i>Eigenvalues</i>	4.36311	3.46547	3.21410	1.78479	

Note: Data pre-test Bremen, adjusted (n = 343); factor loadings <.4 not shown; names of the variables can be found in Table 4; positively worded items were re-pooled.

The content interpretation of the factor loadings shows that Factor 1 loads most strongly on variables that characterize forms of distrust of democracy and thus reflect this latent construct. A closer look at the individual variables and their contribution to the factor shows that Q17_1 and Q17_2 load weaker on the latent construct in direct comparison and their uniqueness of >.5 is closer to 1 than that of the other Q17 variables. In order to reduce the scope of the SuRa scale, it was decided on the basis of these key figures and interpretation not to consider Q17_1 and Q17_2 for further use of the SuRa scale. The second factor loads exclusively with items that belong to the latent construct of perceived discrimination. The variables in question all load relatively strongly on this factor, with item Q16_2 having the lowest loading with a factor loading of approximately .528. The uniqueness values are also all less than .5, indicating that a large portion of the variance in the observed variables is explained by the common factor. It should be noted that the Q16 items do not load uniformly on a single factor. Q16_4 and Q16_6 load most strongly on a fourth factor. In interpreting the factor loadings, reference is made to forms of perceived discrimination which, in their wording, suggest an individual level and, through item Q16_3, also include a form of general and group-related perception of discrimination. For theoretical reasons, it was decided not to include

Q16_4 and Q16_6 in the construction of the SuRa scale. The third factor loads almost exclusively on variables that can be assigned to forms of authoritarianism. Here, all items behave according to the theoretical assumption and are also convincing in terms of factor loading and uniqueness, so that nothing is changed in this constellation. Table 6 shows the factors and factor loadings after the reduction of the items.

Table 6 Factor loadings and eigenvalues of the rotated three-factor solution after item reduction

<i>Variable</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Uniqueness</i>
Q16_1		0.7973		0.3690
Q16_2		0.5692		0.4261
Q16_3		0.7299		0.4300
Q16_5		0.8408		0.2050
Q17_3	0.8308			0.2909
Q17_4	0.7406			0.4114
Q17_5	0.8447			0.2800
Q17_6	0.7258			0.3303
Q18_1			0.7739	0.4040
Q18_2			0.7660	0.3291
Q18_3			0.7179	0.3303
Q18_4			0.7236	0.4093
<i>Eigenvalues</i>	3.63812	3.17553	3.08400	

Note: Data pre-test Bremen, adjusted (n = 343); factor loadings <.4 not shown; names of the variables can be found in Table 4; positively worded items were re-pooled.

The three factors identified in this way are consistent with the theoretical assumptions of the three underlying dimensions and each represent different aspects of the Susceptibility to Radicalization defined in section 2.1. In order to create a central index that represents the overall impact of these aspects on the phenomenon under study, the three factors are added together with equal weighting. The decision to combine the factors with equal weighting is based on our assumption that each factor contributes equally to the central index. This approach allows the combined effect of the three factors to be captured in a single measure that can be used for further analysis and interpretation. Careful consideration has been given to the appropriateness of the theoretical rationale for combining the factors in the research context envisaged here to ensure that the results are valid and meaningful.

4.2. Reliability test

In order to ensure a meaningful assessment of the SuRa scale, the reliability of the index is determined using Cronbach's alpha. Secondly, the Kaiser-Meyer-Olkin criterion (KMO) is used to assess the suitability of the items used for factor analysis. Cronbach's alpha indicates how

consistent the results of a measurement are and can be considered an indicator of reliability (Cronbach & Meehl, 1955). Scale reliability is often calculated using Cronbach's alpha coefficient, which indicates how well the items or questions on a scale correlate with each other. A Cronbach's alpha coefficient of 0.7 or higher is usually considered an indicator of sufficiently high scale reliability. High scale reliability is important because unreliable measures can lead to errors in data analysis and thus to incorrect conclusions. It is therefore necessary to take scale reliability into account when developing and using scales in general population surveys and, if necessary, to take measures to increase reliability. Table 7 compares the Cronbach's alpha coefficients of the first non-reduced four-factor solution and the reduced three-factor solution. By looking at the Cronbach's alpha values for each variable, it is possible to see how much the reliability test would change if the variable in question were not taken into account, assuming that all other variables continue to be used. It can be seen that the SuRa scale is also reduced in terms of Cronbach's alpha by the variables Q16_4 and Q16_6, which are unsuitable for the scale as a result of the considerations in section 4.1. The exclusion of the items Q17_1 and Q17_2 does not imply an improvement in the overall Cronbach's alpha, but rather a deterioration, but the theoretical assumptions must be weighted more heavily here, which is why the reduction by the variables in question remains. A comparison of the overall performance of the respective factor analyses in terms of Cronbach's alpha shows that the coefficient in the reduced solution performs slightly better at .8567 than in the non-reduced factor analysis at .8504. Thus, the exclusion of Q17_1 and Q17_2 does not significantly affect the overall assessment of Cronbach's alpha. The KMO values for Q16_4 and Q16_6 in particular are $< .7$, which means that the suitability of these variables for factor analysis is rather reduced. A high KMO value (usually greater than .6) indicates that the data are suitable for factor analysis or principal component analysis, since a substantial portion of the variance can be explained by the common factors (Kaiser & Rice, 1974). On the other hand, a low KMO value indicates that the data are less suitable for factor analysis because a large proportion of the variance is unique to the individual variables and is not explained by common factors. Only variable Q16_4 does not meet the described KMO limit. The decision to exclude these four items is based on the theoretical assumptions and the fact that they perform worse than the other variables in the corresponding dimension.

Table 7 Cronbach's alpha and Kaiser-Meyer-Olkin coefficients before and after reducing the items

<i>Variable</i>	<u>Cronbach's alpha</u>		<u>Kaiser-Meyer-Olkin</u>	
	<i>Not reduced</i>	<i>Reduced</i>	<i>Not reduced</i>	<i>Reduced</i>
Q16_1	0.8418	0.8497	0.8195	0.8096
Q16_2	0.8393	0.8498	0.8668	0.8487
Q16_3	0.8424	0.8489	0.8758	0.9072
Q16_4	0.8624		0.5569	
Q16_5	0.8327	0.8384	0.8042	0.7781
Q16_6	0.8515		0.6682	
Q17_1	0.8413		0.8129	
Q17_2	0.8414		0.8442	
Q17_3	0.8363	0.8430	0.8581	0.8487
Q17_4	0.8366	0.8445	0.8871	0.8868
Q17_5	0.8338	0.8416	0.8639	0.8513
Q17_6	0.8338	0.8381	0.8790	0.8708
Q18_1	0.8469	0.8518	0.8635	0.8515
Q18_2	0.8403	0.8445	0.8130	0.8151
Q18_3	0.8367	0.8409	0.8213	0.8235
Q18_4	0.8503	0.8561	0.7977	0.8190
Total	0.8504	0.8567	0.8319	0.8402

Note: Data pre-test Bremen, adjusted (n = 343); names of the variables can be found in Table 4; positively formulated items were pooled.

In conclusion, the reduced three-factor solution of the SuRa scale can be considered a reliable index, as the Cronbach's alpha of .8567 is above the generally accepted threshold of .7, indicating a high internal consistency of the variables within the index. This means that the variables that make up the scale fit well together and are consistent. The high value of Cronbach's alpha indicates the reliability of the measurement. The KMO of .8402 is in the range of .8 to .9 and indicates that the data are very suitable for factor analysis. A KMO value in this range means that a significant portion of the variance in the observed variables can be explained by the common factors. This means that factor analysis is likely to yield meaningful and useful results.

4.3. Validity

In order to examine the validity of the SuRa scale and the extent to which it actually measures the theoretical assumptions it is intended to measure, attitudinal traits that are assessed independently of the index will be compared to SuRa and the extent to which they correlate will be examined. Construct validity is a measure of the validity of a scale that indicates the extent to which the scale correlates with a construct related to the underlying theoretical

assumptions (Krebs & Menold, 2019; Reinecke, 2019, p. 729). One such construct related to the additive SuRa index is the *Supporting Violent Extremist Attitudes* scale, which measures support for violent extremism (Nivette et al., 2017, p. 765). This is a four-item scale, the questions of which were translated into German for the pretest in Bremen. The questions are: 1. *sometimes it is necessary to fight against things that are unjust using forms of violence* 2. *sometimes people have to resort to forms of violence to defend their values, beliefs or religious views.* (3) *It is okay to support groups that fight violently against injustice.* 4. *it may sometimes be necessary to use forms of violence, attack something or kidnap people to fight for a better world.* The original response scale included a four-point agreement question, but this was replaced by a five-point scale that was used consistently throughout the pretest. These items were condensed into one factor based on factor analysis. The Cronbach's alpha for this scale is .89. In testing the construct validity, it is now assumed that there is a positive correlation between the SuRa Index and the established *Supporting Violent Extremist Attitudes* scale. An examination of the relationship between these two constructs shows a positive correlation of $r = .1324$ at a significant level ($p < 0.05$). Thus, there is a strong nomological relationship between the SuRa index and increased acceptance of extremist behavior. The low strength of the correlative relationship indicates that the two constructs in themselves measure substantially different aspects of the complex radicalization process, but positively influence each other at a significant level.

Also in the assessment of criterion validity, i.e. the correlation of SuRa between variables that are independent of the SuRa measurement but represent a practically relevant criterion (Reinecke, 2019, p. 729), there are satisfactory indications of validity. For example, the correlation ($r = -0.2018$) between SuRa and a collective efficacy scale shows that the two constructs are negatively correlated at a significant level ($p < 0.05$). The collective efficacy scale consists of the following questions: 1. *the relationships between the people in my neighborhood are good* 2 *I have problems / stress with the people in my neighborhood.* 3. *i do not dare to help the people in my neighborhood.* 4 *I know most of the people who live in my neighborhood.* 5) *I talk to people in my neighborhood about important things.* 6. *there are enough opportunities in my neighborhood to get to know each other - e.g. at parties or events.* 7. *i can borrow items in my neighborhood - e.g. tools or food.* 8. *we in the neighborhood look out for each other and help each other when possible.* 9. *the people in my neighborhood and I have similar attitudes towards life.* 10. *we visit each other in each other's homes.* The aforementioned five-point response scale was also used for these questions in the pretest. The corresponding items were condensed into two factors based on factor analysis, which were added together to create a

central latent construct of collective efficacy. The Cronbach's alpha for this scale is .78. Collective efficacy refers to the ability of a community or neighborhood to act and work together to enforce social norms, overcome problems, and maintain a positive social environment (Sampson, 1997). Collective efficacy can be expected to have a negative, i.e. preventive, effect on individual Susceptibility to Radicalization, which is why it is suitable as an external criterion for validation. Taken together, the construct validity and criterion validity of the Susceptibility to Radicalization scale presented here can be said to be comprehensive.

5. External validation

Based on the pre-test in Bremen presented here, the SuRa Scale was implemented in a representative and general population survey in Germany. The representativeness of this survey refers to the age and gender distribution, stratified by federal states. The survey was conducted from September to November 2002 in cooperation with the polling institute InWis and was produced as part of the Radicalizing Spaces project. A total of 2002 participants in the nationwide survey were included in the analysis. Of these, 54.2% were male and 45.9% were female. In addition, 89.7% of respondents indicated that they had German citizenship, while 10.3% indicated another nationality. Regarding the age of the respondents, the analysis showed that the average age was around 45 years, with the youngest being 17 years old and the oldest 89 years old. The standard deviation was 16 years. Regarding the respondents' highest current educational attainment, 31.6% of the participants had a university degree, 24.8% had a high school diploma or entrance qualification for a university of applied sciences, and 12.4% had no high school diploma or a lower secondary school diploma. The analysis of the national survey data shows that 49.8% of the respondents reported that they were in full-time employment, while 12.2% reported that they were in part-time employment. Correspondingly, 4.4% were unemployed or looking for work and 17.3% were retired or receiving a pension. In summary, the nationwide survey provides a broad range of information on gender, country of birth, age, education, current occupation, and more, similar to the Bremen sample. It should be emphasized that the descriptive representations are unweighted statistical distributions. For the analysis of the national data, design weights were used to adjust for the desired representativeness. Partial missing values were estimated in the same way as for the pre-test described above, using the multiple imputation method.

The three-dimensional and twelve-item SuRa scale was created on the basis of the nationwide survey analogously to the procedure described in Section 4.1 and has a Cronbach's alpha of .7992. Although this value is lower than the value of the final instrument of the pretest

(Cronbach's alpha = .8567), it is still within an acceptable range. This means that the internal reliability of the scale can also be reproduced in a general and representative population survey. However, the distribution of the factor loadings is not as clear as in the pretest. Table 8 shows the factor loadings of the obliquely rotated factor analysis. It can be seen that the analysis yields the three expected factors, but the loadings are significantly less uniform than in the Bremen sample. Table 2 in Appendix B shows the correlations of the individual items of each dimension.

Table 8 Factor loadings and eigenvalues of the rotated factor analysis of the representative Germany sample

<i>Variable</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Uniqueness</i>
Q16_1		0.8623		0.3275
Q16_2	0.4759	0.4121		0.5277
Q16_3		0.7185		0.3864
Q16_5		0.8757		0.1895
Q17_3	0.8364			0.2739
Q17_4	0.3662	0.3268		0.5947
Q17_5	0.8748			0.2995
Q17_6	0.4586		0.4444	0.4527
Q18_1			0.8195	0.3096
Q18_2			0.7468	0.3756
Q18_3	0.6601			0.4653
Q18_4	-0.3998		0.7607	0.3666
<i>Eigenvalues</i>	3.10486	2.90678	2.59250	

Note: Data Germany sample, adjusted (n = 2002); factor loadings <.3 not shown; names of the variables can be found in Table 4; positively worded items were re-pooled.

This time, a cross-loading of Q18_3 between the dimensions of forms of mistrust in democracy and forms of authoritarianism as well as various equally strong loadings on two factors in Q16_2, Q17_4 or Q17_6 can be identified. Contrary to the results of the pretest analysis, this may indicate deficits in the internal consistency of the scale construction. With regard to the theoretical assumptions underlying the dimensions, this methodological inconsistency is not interpreted as a major disadvantage, since the individual factors ultimately merge into an equally weighted additive index and thus no loss of information in the explanation of variance is assumed. Moreover, in a representative survey it is hardly surprising that there are non-separable factor loadings, since the theoretically defined dimensions - especially with regard to mistrust in democracy and authoritarianism - are extremely strongly interacting concepts, so that the correlation of the factors with each other is not limited. When examining the validity in the German sample, it should be noted with regard to construct validity that SuRa

correlates at the highest level of significance ($p < 0.001$) with approval of violent extremism ($r = .0930$). The criterion validity also refers to the already presented construct of collective efficacy. A highly significant ($p < 0.001$) negative correlation of $r = -.1305$ should be mentioned here, which once again confirms the finding from the pretest. Further information on the constructs used in the German sample is available upon request. Comparing the validity of the SuRa scale in the representative sample with that of the pre-test, it can be seen that the correlation strength decreases, but firstly retains the expected direction and secondly increases in significance, so that it can be assumed with greater statistical certainty that SuRa does indeed measure Susceptibility to Radicalization.

6. Conclusion and outlook

The starting point of this work was to describe the scale construction for measuring susceptibility to the process of radicalization in the form of a quantifiable survey instrument. Based on a theoretical derivation, the three central dimensions of *perceived discrimination*, *distrust of democracy* and *authoritarianism* were proposed. A further dimension of *ideological motivation* or susceptibility was theoretically discussed in passing, but was excluded from the statistical analyses for the time being and requires further investigation. Through the pretest described above, the preliminary theoretical considerations were supplemented and further adapted by empirical findings, so that a susceptibility scale was developed that, on the one hand, has satisfactory reliability in terms of internal consistency as measured by Cronbach's alpha and the Kaiser-Meyer-Olkin criterion. In addition, internal validity tests were conducted in the form of construct and criterion validity, which can confirm the initial robustness of the theoretically intended construct.

In addition to this detailed description of the scale construction and validation, an external validation of the SuRa Index on the basis of a general population survey in Germany was also discussed. It must be critically noted that the factor loadings in some cases show inconsistent loading behavior, which could not be determined in the pretest. However, this methodological shortcoming is of secondary importance due to the theoretical assumption already discussed, since the individual factors are included in an equally weighted additive index, so that no substantial loss of information in the explanation of the variance is to be expected. Furthermore, it is not surprising that there were no clear factor loadings in a representative population survey, since the theoretically defined dimensions, especially distrust of democracy and authoritarianism, are not directly distinguishable. Nevertheless, the validity tests were supported at the highest level of significance in the general survey, which speaks to the

robustness of the scale construction with respect to the underlying theoretical assumptions and hypotheses.

Further research is needed in the area of a quantifiable representation of the ideological charge(s) dimension of the Susceptibility to Radicalization under consideration. It would be desirable to include sensitive subscales depending on the domain of the phenomenon in order to make ideological openness measurable. Further research is also needed on the underlying causal assumptions, as a substantive link can be established through nomological construct validity, but only on the basis of a purely correlative relationship. This is not sufficient to determine which attitudinal relationships were initially present. Therefore, investigating the direction of causality in relation to Susceptibility to Radicalization must be another central research concern and should be used, for example, in panel designs that examine general population samples.

7. Literature

Abay Gaspar, H., Daase, C., Deitelhoff, N., Junk, J., & Sold, M. (2018). *Was ist Radikalisierung? - Präzisierungen eines umstrittenen Begriffs*. Leibniz-Institut Hessische Stiftung Friedens- und Konfliktforschung (HSFK).

Adorno, T. L. W. (1950). *The authoritarian personality*. Harper & Row.

Altemeyer, R. A., & Altemeyer, B. (1996). *The Authoritarian Specter*. Harvard University Press.

Beierlein, C., Asbrock, F., Kauff, M., & Schmidt, P. (2014). Die Kurzskala Autoritarismus (KSA-3). *GESIS-Working Papers*, 35, 32.

Conway III, L. G., Zubrod, A., Chan, L., McFarland, J. D., & Van de Vliert, E. (2023). Is the myth of left-wing authoritarianism itself a myth? *Frontiers in Psychology*, 13. <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.1041391>

Costello, T. H., Bowes, S. M., Stevens, S. T., Waldman, I. D., Tasimi, A., & Lilienfeld, S. O. (2022). Clarifying the structure and nature of left-wing authoritarianism. *Journal of Personality and Social Psychology*, 122(1), 135–170. <https://doi.org/10.1037/pspp0000341>

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281.

Cudeck, R. (2000). 10—Exploratory Factor Analysis. In H. E. A. Tinsley & S. D. Brown (Eds.), *Handbook of Applied Multivariate Statistics and Mathematical Modeling* (pp. 265–296). Academic Press. <https://doi.org/10.1016/B978-012691360-6/50011-2>

Dalgaard-Nielsen, A. (2010). Violent Radicalization in Europe: What We Know and What We Do Not Know. *Studies in Conflict & Terrorism*, 33(9), 797–814. <https://doi.org/10.1080/1057610X.2010.501423>

Frindte, W., Boehnke, K., Kreikenbom, H., & Wagner, W. (2011). *Lebenswelten junger Muslime in Deutschland*. Bundesministerium des Innern.

Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark Iv. *Educational and Psychological Measurement*, 34(1), 111–117. <https://doi.org/10.1177/001316447403400115>

Krebs, D., & Menold, N. (2019). Gütekriterien quantitativer Sozialforschung. *Handbuch Methoden Der Empirischen Sozialforschung*, 489–504.

Kurtenbach, S. (2021). *Radikalisierung und Raum. Forschungsstand zur Untersuchung räumlicher Einflüsse auf Radikalisierungsanfälligkeit. I.* <https://doi.org/10.4119/unibi/2953901>

Kurtenbach, S., Linßer, J., & Weitzel, G. (2020). *Anfällig für Radikalisierung? Einstellungen und Haltungen von Jugendlichen aus unterschiedlichen Lebenswelten zu den Themen Demokratie, Religion, Diskriminierung und Geschlecht* (Vol. 2). Bonn International Center for Conversion (BICC).

Lyons-Padilla, S., Gelfand, M. J., Mirahmadi, H., Farooq, M., & van Egmond, M. (2015). Belonging nowhere: Marginalization & radicalization risk among Muslim immigrants. *Behavioral Science & Policy*, 1(2), 1–12. <https://doi.org/10.1353/bsp.2015.0019>

Netemeyer, R. G., Haws, K. L., & Bearden, W. O. (Eds.). (2011). *Handbook of marketing scales: Multi-item measures for marketing and consumer behavior research* (3rd ed). SAGE.

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>

Porst, R. (2014). *Fragebogen*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-02118-4>

Reinecke, J. (2019). Grundlagen der standardisierten Befragung. *Handbuch Methoden Der Empirischen Sozialforschung*, 717–734.

Rezaei, S., & Goli, M. (2010). *House of War: Islamic Radicalisation in Denmark*. Centre for Studies in Islamism and Radicalization (CIR), Aarhus University.

<https://forskning.ruc.dk/en/publications/house-of-war-islamic-radicalisation-in-denmark>

Richter, K., Wohlt, S., & Frindte, W. (2018). Wie hältst Du es mit der Demokratie? Einstellungen von Jugendlichen zur Demokratie und politischen Partizipation. *Institut für Demokratie und Zivilgesellschaft*. https://www.idz-jena.de/fileadmin/user_upload/PDFS_WsD3/Text_Richter_Wohlt_Frindte.pdf

Rubin, D. B. (Ed.). (1987). *Multiple Imputation for Nonresponse in Surveys*. John Wiley & Sons, Inc. <https://doi.org/10.1002/9780470316696>

Sampson, R. J. (1997). Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science*, 277(5328), 918–924. <https://doi.org/10.1126/science.277.5328.918>

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>

Slootman, M., Demant, F., Buijs, F., & Tillie, J. (2006). *Processes of Radicalisation. Why some Amsterdam Muslims become radicals*.

von Lersner, U., Pleger, M., Baschin, K., Morina, N., & Fydrich, T. (2015). Psychische Belastung von Jugendlichen. *Zeitschrift Für Klinische Psychologie Und Psychotherapie*, 44(3), 147–158. <https://doi.org/10.1026/1616-3443/a000306>

Weiss, H., Ateş, G., & Schnell, P. (Eds.). (2016). *Muslimische Milieus im Wandel? Religion, Werte und Lebenslagen im Generationenvergleich* (1. Auflage). Springer VS.

Zick, A. (2017). Extremistische Inszenierungen: Elemente und Pfade von Radikalisierungs- und Deradikalisierungsprozessen. *Radikalisierung und terroristische Gewalt: Perspektiven aus dem Fall- und Bedrohungsmanagement*. <https://pub.uni-bielefeld.de/record/2912798>

Zick, A., Berghan, W., & Mokros, N. (2020). Jung, feindselig, rechts!? Menschenfeindliche, rechtspopulistische und -extreme Orientierungen im intergenerativen Vergleich. *Zeitschrift für Erziehungswissenschaft*, 23(6), 1149–1178. <https://doi.org/10.1007/s11618-020-00975-5>

Zick, A., & Böckler, N. (2015). Radikalisierung als Inszenierung. *Extremismus Und Prävention*, 3, 6–16.

Zick, A., Küpper, B., Berghan, W., & Verlag J. H. W. Dietz Nachf. (2019). *Verlorene Mitte—Feindselige Zustände Rechtsextreme Einstellungen in Deutschland 2018*.

Ziemes, J. F., & Jasper, J. (2017). Gruppenbezogene Einstellungen. *Das Politische Mindset Der*, 135–160.

8. Appendix A

Tables 1 to 3 show two factor analyses as well as an overview of Cronbach's alpha and the Kaiser-Meyer-Olkin criterion in relation to the two factor analyses. The procedure is analogous to that described in the main text. It can be seen that the unreduced pool of questions loads on seven factors. Factors two and four correspond to the theoretical dimensions of forms of authoritarianism and forms of distrust of democracy. Based on the theoretical assumptions and the information from Table 3, it was decided to retain the item selection of the SuRa scale from the continuous text for the three basic dimensions. The selection of variables for forms of extreme religiosity is more difficult. It was decided to include five items for this dimension. This is mainly due to the influence of the corresponding variables on the Cronbach's alpha in Table 3. In general, it should be noted that the analysis could only be carried out on a subsample of $n = 164$ people who had identified themselves as belonging to a religious community. It should also be emphasized that almost all of these people feel that they belong to a Christian religious community and only four people belong to a Muslim religious community. The range of phenomena covered thus corresponds at best to a susceptibility to Christian-motivated fundamentalism, but should not be over-interpreted, since it is firstly a small sample and secondly does not claim to be representative, since it is an occasional sample.

Table 1 Factor loadings and eigenvalues of the rotated SuRa dimension including forms of extreme religiosity

<i>Variable</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Factor 4</i>	<i>Factor 5</i>	<i>Factor 6</i>	<i>Factor 7</i>	<i>Uniqueness</i>
Q15_1						0.7641		0.3459
Q15_2	0.4600					0.4548		0.3987
Q15_3	0.6641							0.4392
Q15_4	0.6697							0.2303
Q15_5	0.8185							0.2293
Q15_6	0.7825							0.3240
Q15_7	0.6656							0.4186
Q15_8	0.6511							0.4435
Q16_1			0.7702					0.3289
Q16_2					0.4867			0.3381
Q16_3			0.6561					0.3512
Q16_4						0.8798		0.2522
Q16_5			0.7346					0.1944
Q16_6						0.8141		0.2717
Q17_1					0.7360			0.3429
Q17_2					0.6575			0.5072
Q17_3				0.7971				0.2933
Q17_4				0.7437				0.4038
Q17_5				0.6893				0.2864
Q17_6				0.5392				0.1827
Q18_1		0.7410						0.3717
Q18_2		0.7704						0.3078
Q18_3		0.7814						0.2978
Q18_4		0.5996						0.3623
<i>Eigenvalues</i>	4.32117	3.55607	3.42423	3.23093	2.26963	1.79490	1.54764	

Note: Data pre-test Bremen, adjusted; only people who assign themselves to a religious community (n = 164); factor loadings <.4 not shown; names of the variables can be found in Table 4 in the full text; positively worded items were re-pooled.

Table 2 Factor loadings and eigenvalues of the rotated SuRa dimension including forms of extreme religiosity *after* reduction of the items

<i>Variable</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Factor 4</i>	<i>Uniqueness</i>
Q15_3	0.7816				0.4547
Q15_4	0.7975				0.2733
Q15_5	0.8174				0.2900
Q15_6	0.8184				0.3489
Q15_7	0.6618				0.4477
Q16_1		0.8125			0.3464
Q16_2		0.3968		0.3725	0.5425
Q16_3		0.6800			0.4043
Q16_5		0.7810			0.1912
Q17_3				0.7738	0.3113
Q17_4				0.7353	0.4387
Q17_5				0.7700	0.2860
Q17_6			0.5068	0.5851	0.3244
Q18_1			0.7578		0.3862
Q18_2			0.7516		0.3204
Q18_3			0.7402		0.3460
Q18_4			0.6571		0.4415
<i>Eigenvalues</i>	3.88404	3.65414	3.38066	3.10275	

Note: Data pre-test Bremen, adjusted; only people who assign themselves to a religious community (n = 164); factor loadings <.3 not shown; names of the variables can be found in Table 4 in the full text; positively worded items were re-pooled.

Table 3 Cronbach's alpha and Kaiser-Meyer-Olkin coefficients before and after reducing the items

<i>Variable</i>	<u>Cronbach's alpha</u>		<u>Kaiser-Meyer-Olkin</u>	
	<i>Not reduced</i>	<i>Reduced</i>	<i>Not reduced</i>	<i>Reduced</i>
Q15_1	0.8493		0.6422	
Q15_2	0.8485		0.7311	
Q15_3	0.8482	0.8586	0.8345	0.8545
Q15_4	0.8408	0.8514	0.7681	0.7988
Q15_5	0.8415	0.8528	0.8138	0.8196
Q15_6	0.8477	0.8582	0.7198	0.7307
Q15_7	0.8422	0.8519	0.7664	0.8297
Q15_8	0.8492		0.7599	
Q16_1	0.8429	0.8523	0.8684	0.8701
Q16_2	0.8409	0.8517	0.8367	0.8313
Q16_3	0.8440	0.8521	0.8082	0.8743
Q16_4	0.8590		0.5035	
Q16_5	0.8366	0.8440	0.7969	0.8149
Q16_6	0.8560		0.5298	
Q17_1	0.8480		0.7075	
Q17_2	0.8532		0.7484	
Q17_3	0.8432	0.8532	0.7877	0.8089
Q17_4	0.8470	0.8593	0.8087	0.8381
Q17_5	0.8440	0.8558	0.7717	0.7517
Q17_6	0.8449	0.8556	0.7593	0.7487
Q18_1	0.8471	0.8577	0.8206	0.7995
Q18_2	0.8425	0.8523	0.8325	0.8363
Q18_3	0.8423	0.8518	0.8217	0.8105
Q18_4	0.8467	0.8578	0.7630	0.8109
Total	0.8517	0.8614	0.7738	0.8114

Note: Data pre-test Bremen, adjusted; only persons who assign themselves to a religious community (n = 164); names of the variables can be found in Table 4 in the full text; positively formulated items were re-pooled.

9. Appendix B

	Q16_1	Q16_2	Q16_3	Q16_5	Q17_3	Q17_4	Q17_5	Q17_6	Q18_1	Q18_2	Q18_3	Q18_4	¹ Dim1	² Dim2	³ Dim3	SuRa
Q16_1	1.0000															
Q16_2	0.3560*	1.0000														
Q16_3	0.3999*	0.3766*	1.0000													
Q16_5	0.6353*	0.5020*	0.5391*	1.0000												
Q17_3	0.3491*	0.3922*	0.2287*	0.3523*	1.0000											
Q17_4	0.2632*	0.3175*	0.2528*	0.3348*	0.5974*	1.0000										
Q17_5	0.2701*	0.4205*	0.2206*	0.3057*	0.6316*	0.5016*	1.0000									
Q17_6	0.2564*	0.4114*	0.2835*	0.3102*	0.5150*	0.5170*	0.6418*	1.0000								
Q18_1	0.1379	0.0605	0.2346*	0.2520*	0.1929	0.2698*	0.2065	0.3637*	1.0000							
Q18_2	0.2057	0.1573	0.2703*	0.3212*	0.2712*	0.2733*	0.3355*	0.3927*	0.4686*	1.0000						
Q18_3	0.2323*	0.1908	0.2811*	0.4059*	0.3269*	0.3247*	0.3746*	0.4357*	0.4446*	0.6947*	1.0000					
Q18_4	0.1749	0.0833	0.2696*	0.3696*	0.0526	0.1217	0.1268	0.2247*	0.4482*	0.3865*	0.3870*	1.0000				
¹ Dim1	0.3374*	0.5341*	0.2593*	0.3665*	0.8508*	0.7369*	0.8677*	0.7831*	0.2485*	0.3731*	0.4345*	0.0494	1.0000			
² Dim2	0.7841*	0.6258*	0.6900*	0.9311*	0.3827*	0.3330*	0.3151*	0.3183*	0.1831	0.2579*	0.3272*	0.3391*	0.3919*	1.0000		
³ Dim3	0.1806	0.0630	0.3314*	0.3981*	0.1896	0.2770*	0.2843*	0.4465*	0.7473*	0.8267*	0.8097*	0.6933*	0.2923*	0.2983*	1.0000	
SuRa	0.5854*	0.5494*	0.5755*	0.7620*	0.6384*	0.6041*	0.6579*	0.6941*	0.5284*	0.6535*	0.7046*	0.4854*	0.7554*	0.7598*	0.7131*	1.0000

Note: Data pre-test Bremen, adjusted (n = 343); names of the variables can be found in Table 4 in the full text; positively formulated items were pooled; variables with a * correspond to a significance level of $p < 0.001$.

¹Dim1 corresponds to the dimension: *Forms of mistrust of democracy*.

²Dim2 corresponds to the dimension: *Forms of perceived discrimination*.

³Dim3 corresponds to the dimension: *Forms of authoritarianism*.

Table 2 Correlation table of the variables in connection with the SuRa construct

	Q16_1	Q16_2	Q16_3	Q16_5	Q17_3	Q17_4	Q17_5	Q17_6	Q18_1	Q18_2	Q18_3	Q18_4	¹ Dim1	² Dim2	³ Dim3	SuRa
Q16_1	1.0000															
Q16_2	0.2641*	1.0000														
Q16_3	0.4508*	0.2449*	1.0000													
Q16_5	0.6588*	0.3885*	0.6274*	1.0000												
Q17_3	0.1385*	0.4184*	0.2251*	0.2535*	1.0000											
Q17_4	0.2494*	0.2530*	0.3682*	0.3913*	0.4353*	1.0000										
Q17_5	0.0373	0.3611*	0.1477*	0.1278*	0.6037*	0.2672*	1.0000									
Q17_6	0.1585*	0.2134*	0.3227*	0.3260*	0.3578*	0.4513*	0.4183*	1.0000								
Q18_1	0.1640*	0.0679	0.2653*	0.2758*	0.0628	0.2435*	0.0578	0.4150*	1.0000							
Q18_2	0.1011*	0.0501	0.2118*	0.1731*	0.1125*	0.2373*	0.1757*	0.3756*	0.4819*	1.0000						
Q18_3	0.0451	0.2691*	0.1399*	0.1209*	0.4521*	0.1371*	0.4295*	0.2680*	0.2082*	0.3979*	1.0000					
Q18_4	0.1073*	-0.0389	0.2207*	0.1922*	-0.1508*	0.1280*	-0.1367*	0.1827*	0.4943*	0.3161*	0.0242	1.0000				
¹ Dim1	0.1084*	0.5176*	0.2600*	0.2698*	0.8631*	0.4703*	0.8476*	0.5558*	0.1507*	0.3088*	0.6380*	-0.1736*	1.0000			
² Dim2	0.8095*	0.4473*	0.7354*	0.9429*	0.2920*	0.4531*	0.1216*	0.3235*	0.2593*	0.1205*	0.0744*	0.1969*	0.2727*	1.0000		
³ Dim3	0.1212*	0.0096	0.3396*	0.2821*	0.0476	0.3199*	0.0996*	0.5447*	0.8499*	0.7559*	0.3459*	0.7068*	0.2026*	0.2445*	1.0000	
SuRa	0.4957*	0.4627*	0.6352*	0.7118*	0.5694*	0.5901*	0.5052*	0.6749*	0.5976*	0.5613*	0.5004*	0.3470*	0.6982*	0.7228*	0.6861*	1.0000

Note: Data Germany sample, adjusted (n = 2002); names of the variables can be found in Table 4 in the full text; positively formulated items were pooled; variables with a* correspond to a significance level of $p < 0.001$.

¹Dim1 corresponds to the dimension: *Forms of mistrust of democracy*.

²Dim2 corresponds to the dimension: *Forms of perceived discrimination*.

³Dim3 corresponds to the dimension: *Forms of authoritarianism*.

Impressum

Armin Küchler

Measuring Susceptibility to Radicalization, Bielefeld/Münster: Institut für interdisziplinäre Konflikt- und Gewaltforschung (IKG) der Universität Bielefeld/Fachbereich Sozialwesen der FH Münster, 2021

Schriftenreihe „Radikalisierende Räume“

DOI: <https://doi.org/10.4119/unibi/2986673>

URN: urn:nbn:de:0070-pub-29866739

Tel: + 49 251 83-65745/ Fax: + 49 251 83-65702

E-Mail: info@radikalisierende-raeume.de

„Schriftenreihe Radikalisierende Räume“

General Editor: Prof. Dr. Andreas Zick/Prof. Dr. Sebastian Kurtenbach

ISSN 2748-1654



Soweit nicht anders angegeben, wird diese Publikation unter der Lizenz Creative Commons Namensnennung - Nicht kommerziell - Keine Bearbeitungen 4.0 International (CC BY-NC-ND) veröffentlicht. Weitere Informationen finden Sie unter: <https://creativecommons.org/licenses/by-nc-nd/4.0/deed.de> und <https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode.de>

Prof. Dr. Andreas Zick
Universität Bielefeld
Institut für interdisziplinäre Konflikt- und
Gewaltforschung (IKG)
Universitätsstr. 25
33615 Bielefeld

Tel: +49 521 106-3124
E-Mail: zick.ikg@uni-bielefeld.de
[https://www.uni-bielefeld.de/\(de\)/ikg/institut.html](https://www.uni-bielefeld.de/(de)/ikg/institut.html)

Prof. Dr. Sebastian Kurtenbach
FH Münster
- University of Applied Sciences -
Friesenring 32
48147 Münster

Tel: + 49 251 83-65745
E-Mail: kurtenbach@fh-muenster.de
www.fh-muenster.de/index.php