



Hippies Next to Right-Wing Extremists?

Identifying Subgroups of Antilockdown Protesters in Germany Using Latent Profile Analysis

Luisa Liekefett¹, Ann-Kathrin Bürner, and Julia C. Becker¹

Department of Psychology, Osnabrück University, Germany

Abstract: To reduce the spread of COVID-19, adherence to protective measures was crucial around the world. While most complied with these measures, a vocal minority protested against them. Early reports emphasized the unusual heterogeneity of these protests: Hippies and esoterics marched alongside conspiracy theorists and neo-Nazis. We examined what these protestors might (and might not) have in common. A large study with antilockdown protestors in Germany ($N = 1,700$) revealed four subgroups: centrists, politically undifferentiated, left-wingers, and right-wingers. Beyond that, these subgroups demonstrated striking similarities: All endorsed conspiracy beliefs, misinformation, esotericism, and vaccine hesitancy to a similar extent. These beliefs share that they are scientifically unfounded and epistemically unwarranted. They may unite individuals from diverse political backgrounds in the antilockdown protests.

Keywords: antilockdown protests, coronavirus restrictions, conspiracy beliefs, vaccine hesitancy, esotericism

In response to the coronavirus pandemic, governments around the world announced far-reaching restrictions of private and public life. Quickly after these measures were implemented, a number of people organized protests against them. Such demonstrations have emerged in many countries, including Australia, the United States, the United Kingdom, the Netherlands, and Germany (BBC, 2020; Carothers, 2020; Milburn, 2020). Media reports about the antilockdown movement in Germany (the *Querdenken* [diagonal thinking] initiative) strongly emphasized its unusual heterogeneity: Rainbow flags were hissed next to German imperial flags (a symbol used by the far-right; Koos, 2021b). Some protestors attacked the police aggressively, while others meditated or chanted “Hare Krishna” (Merker, 2021; Röther, 2020). Joachim Herrmann, minister of the interior in Bavaria, described the movement as a mix of esoterics, antivaxxers, conspiracy theorists, right-wing extremists, and so-called “Reichsbürger” (a group who claims that the German Empire continues to exist in its pre-World War II form; Oswald, 2021).

However, it was also frequently emphasized that not all protestors should be considered a danger to democracy, or be dismissed as *crazy*, *paranoid*, or *hysterical* (Oswald, 2021; RND/dpa, 2020, 2021). Instead, a more moderate, bourgeois camp of protestors seemed to exist within the movement, which may have participated predominantly to express their concerns

about the economic impact of the lockdown measures (such as the *honk for hope* initiative, which attempted to save the coach industry; De la Riva, 2022; Deutschlandfunk, 2022). Such observations caused many to ask the following: Why do such contradictory groups meet up and protest together? What unites these diverse groups? The present research was set up to explore the ostensible heterogeneity of the antilockdown movement in Germany and examine what protestors might (or might not) have in common. In the following, we describe the variables we believe particularly relevant.

Conspiracy Beliefs and Coronavirus Downplaying

Conspiracy beliefs are attempts to explain significant social or political events through alleged conspiracies: a plot initiated by malevolent individuals or groups who are powerful and act in secret (Douglas et al., 2019; Imhoff & Bruder, 2014). Different conspiracy beliefs have developed in response to the coronavirus pandemic, for example, the idea that the virus was created in a lab, that it served to distract from other political scandals, or that it does not exist at all (Imhoff & Lamberty, 2020; Nocun & Lamberty, 2020). Coronavirus downplaying is a related concept that refers to frequent claims that the virus is not as dangerous as it is proclaimed to be and that it is, in fact,

not worse than the common flu (Küppers & Reiser, 2021; Latkin et al., 2021). Such conspiracy beliefs and misinformation appear to be widespread among the antilockdown protestors. The majority of participants who were surveyed by Nachtwey et al. (2020) agreed or completely agreed that “the coronavirus is no more dangerous than a severe flu,” and about half of the sample voiced conspiracy suspicions. Further, prominent individuals who are known to endorse conspiracy beliefs have been present at protests, such as the celebrity TV chef Attila Hildmann (Connolly, 2020).

Esotericism and Anthroposophy

People with a propensity toward esotericism and spiritual beliefs appear to be strongly represented in the German antilockdown movement (Speit, 2021). Esotericism is an umbrella term for diverse practices and beliefs that are rejected by mainstream science, among them paranormal and superstitious beliefs such as astrology, fortune-telling, or belief in spirits (Dyrendal et al., 2018; Lobato et al., 2014). In Germany, a particularly prominent esoteric school of thought is anthroposophy, which was developed by Rudolf Steiner and claims the existence of an invisible, spiritual world that is deeply intertwined with the *visible* world (Sebastini, 2011; Uhrmacher, 1995). An important principle in anthroposophy is that the causes of illness are not primarily physical, but spiritual and the result of a patient’s *karma*. Accordingly, interfering with the illness would be unwise because the patient would have to compensate for it in a later life (Rawlings, 2012; Steiner & Barton, 2013). Prominent supporters of anthroposophy took part in and publicly spoke at antilockdown protests (Düker, 2021), and anthroposophical beliefs about *natural self-healing powers* or alternative medicine were strongly endorsed among protest participants (Nachtwey et al., 2020).

Esoteric beliefs are closely linked with conspiracy beliefs, a phenomenon which has been termed *conspiratoriness* (Ward & Voas, 2011). Conspiratoriness consists of two components: the conviction that “a secret group covertly controls, or is trying to control, the political and social order” and that “humanity is undergoing a “paradigm shift” in consciousness, or awareness” (Ward & Voas, 2011, p. 104). Both components are tied together by shared themes of *awakening*, exposing (and deposing of) a shadow government, and *revealing truth* (Ward & Voas, 2011).

Opposition to Vaccination

Opposition to the COVID-19 vaccines is widespread in the antilockdown movement (Belghaus et al., 2020; Stark,

2020). Interviews in which the safety of the vaccines is explicitly drawn into doubt are among the most frequently shared videos on the protestors’ networks (Holzer, 2021). Many opponents of the vaccines believe that they are not necessary or even more dangerous than the disease itself (Jennings et al., 2021). Koos (2021a) found that 57% of the interviewed participants of an antilockdown demonstration identified as vaccination critics, and most protestors who participated in the survey by Nachtwey et al. (2020) feared that the government introduced compulsory vaccination as well as immunity cards for all citizens.

Vaccine hesitancy is closely linked to conspiracy beliefs and esotericism: Several conspiracy theories target vaccinations directly (e.g., by claiming that the vaccines implant microchips that serve to control humans), and conspiracy beliefs appear to be the strongest psychological predictor of antivaccination attitudes (Hornsey et al., 2018). Members of esoteric communities often adhere to a pseudoscientific *lay theory of immunity*, which views a natural diet and lifestyle as sufficient to ensure immunity, and vaccines as a harmful disruption of the workings of the immune system (Halafoff et al., 2022). Thus, it seems unsurprising that alternative spirituality consistently predicts vaccine hesitancy across multiple countries (Rutjens et al., 2022; Rutjens & van der Lee, 2020). Vaccine hesitancy, esotericism, anthroposophy, and unwarranted conspiracy beliefs can all be considered examples of antiscience attitudes: Their adherents ignore the majority of scientific evidence in favor of claims about the existence of powerful, invisible forces that are undetectable by current scientific methods (Lobato et al., 2014; Swami et al., 2011).

Economic Anxiety

In reports about the antilockdown protests, it was frequently emphasized that not all are conspiracy theorists, esoterics, and antivaxxers and that some may participate predominantly because they are worried about the consequences the protective measures may have for the economy or their own financial situation (e.g., small business owners; Callison & Slobodian, 2021). Indeed, the pandemic has led to a disruption of global economic activity (Fernandes, 2020). Evidence shows that economic anxiety has increased significantly after the outbreak of SARS-CoV-2 (Fetzer et al., 2021) and is comparable in scope to health anxiety (Bareket-Bojmel et al., 2021). Further, the amount of self-employed people appears to be higher in the protesting population than in the general population (Nachtwey et al., 2020), and many of the leaders of antilockdown protests worldwide are entrepreneurs or self-employed (Callison & Slobodian, 2021). These people may be particularly concerned over the

economic impact of protective measures, since they may lack financial security and support from labor unions. Therefore, economic anxiety may be a factor motivating opposition to the protective measures (Flade et al., 2020).

Sociopolitical Ideology

Among the most controversial topics with regard to the antilockdown protestors is the issue of their political orientation. Protest participants have frequently been described as being politically very diverse (Fiedler & Starzmann, 2020). Protestors themselves often claim to represent the middle of society (Grande et al., 2021). Similarly, the founder of the German antilockdown movement, Michael Ballweg, has emphasized that the movement stems from the *center of society* and has officially distanced himself from any kind of extremism (Querdenken 711, 2022). Nevertheless, right-wing flags and symbols have been frequently spotted during protests (Callison & Slobodian, 2021; Hippert & Saul, 2021). Prominent members of right-wing extremist groups were present at the demonstrations, spoke on stages, and appear well connected to Michael Ballweg (Mertens, 2020; Speit, 2021). Due to these observations, it seems important to examine the extent to which protestors endorse radical right-wing beliefs. Central aspects of right-wing ideology are ideas of inequality between different social groups, such as ethnic or religious groups (Decker et al., 2013). It is not uncommon in Germany that individuals who describe their political attitudes as centrist endorse right-wing ideologies, such as a devaluation of minority groups (e.g., refugees, Muslims, Jews; Zick et al., 2019). Therefore, we not only examine the extent to which protest participants identify as left-wing, right-wing, or centrist but also their agreement to racist and antisemitic statements as indicators of right-wing political ideology.

The Present Research

The goal of this research was to explore the composition of the antilockdown movement in Germany. Media reports painted the picture of a diverse mix of protestors: While adherents of conspiracy theories, esoteric communities, antivaxxers, and right-wing extremist groups were obviously present at protests, the movement also attracted a more moderate, bourgeois crowd, thereby raising the question of how such contradictory groups can come together (De la Riva, 2022; Deutschlandfunk, 2022). These observations suggest that protestors differ in the extent to which they endorse conspiratorial, esoteric, or right-wing extremist ideas. This study investigates whether the

movement is indeed as heterogeneous as initially thought. For this purpose, we examine similarities and differences in protestors' belief systems and explore whether empirically distinct subgroups of protestors can be identified (e.g., *right-wing extremists*, *esoterics*, *moderates*). We address these questions by using latent profile analysis, a person-centered technique that groups people with similar response patterns on the latent profile indicators into one profile (Nylund-Gibson & Choi, 2018).

We examine a variety of variables relevant for understanding the antilockdown protests: conspiracy beliefs, downplaying of the dangers of the coronavirus, esotericism, opposition to vaccination, economic anxiety, and sociopolitical ideology. Although we do not have clear hypotheses as to what the profiles specifically look like, some preliminary suggestions can be derived: First, we expect that some protestors will be characterized by right-wing political self-identification, racism, and antisemitism (right-wingers; Callison & Slobodian, 2021; Hippert & Saul, 2021; Mertens, 2020; Speit, 2021). Second, some protestors will likely be characterized by opposition to vaccination, esotericism, and anthroposophical beliefs (i.e., esoterics), but not necessarily right-wing beliefs (Düker, 2021). Both of these groups presumably believe in conspiracies: On the one hand, racist and antisemitic attitudes are often justified by conspiratorial stereotypes (Bilewicz & Krzeminski, 2010; Kofta et al., 2020; Uenal, 2016), and on the other hand, esotericism, anthroposophy, and vaccine hesitancy are related to conspiracy beliefs through their rejection of science and belief in hidden and supernatural forces (Lewandowsky et al., 2013; Lobato et al., 2014; Rutjens & van der Lee, 2020; Swami et al., 2011). Finally, we expect to find at least one group of protestors that is more moderate and does not hold conspiracy, esoteric, or right-wing beliefs, since it was often emphasized that not all are extremists and conspiracy theorists (RND/dpa, 2021) and that a more moderate, bourgeois camp exists within the movement (Koo, 2021b).

Method

Procedure

Between February 23 and March 11, 2021, an online questionnaire was distributed among Telegram groups that were previously identified as related to antilockdown protests (Salheiser & Richter, 2020). We started with the most popular, largest channels and added smaller groups over time, a convenience sampling method that is commonly applied when the target group is difficult to approach (Naderifar et al., 2017). The questionnaire was

posted approximately 1–2 times a day on varying time points in a total of 58 groups. Participants had the chance to win one of four € 50 vouchers if they completed the survey.

Participants

A total of $N = 2,651$ participants completed the survey. We included only those who had indicated that they had already been at an antilockdown protest ($n = 1,705$). To ensure data quality, we excluded participants who completed the questionnaire unreasonably fast, that is, those who, on any page, spent less than an average of 2 s per item ($n = 5$; Huang et al., 2012). A sample of $N = 1,700$ remained, of which 35.57% identified as male, 63.55% as female, and .01% as diverse. The mean age was 50.75 years ($SD = 11.16$). Overall, the sample was highly educated, and most participants identified themselves as middle class (see Supplement, <https://osf.io/v56ra> for details).

Analytic Strategy

To identify distinct clusters of antilockdown protestors in Germany, we use a person-centered approach, namely latent profile analysis (LPA). LPA identifies unobserved or hidden subgroups in a population and groups individuals that share similar response patterns on the latent profile indicators into one profile (Nylund-Gibson & Choi, 2018; Osborne & Sibley, 2017). Before conducting the LPA, we subject all items to an exploratory factor analysis. Since a number of our items were self-developed or subsets from a larger measure, their factorial structure cannot be taken for granted. Items that (a) load onto their primary factor above 0.40, (b) load onto alternative factors below 0.30, and (c) demonstrate a difference of at least 0.20 between their primary and alternative factor loadings will be retained (Howard, 2016) and combined into mean scores, which will be used as indicators in the LPA.

A major challenge in LPA consists in selecting the appropriate number of profiles and variance-covariance matrix specification (Johnson, 2021). To guide this decision, it is recommended to jointly consider statistical fit indices, substantive interpretability and utility, and classification diagnostics (Nylund-Gibson & Choi, 2018). We consider the following indices: Bayesian Information Criterion (BIC), sample size-adjusted BIC (SABIC), the Vuong–Lo–Mendell–Rubin (VLMR) likelihood test, and the bootstrapped likelihood ratio test (BLRT). We also consider entropy (an overall measure of classification accuracy), sample proportions assigned to the smallest and

largest profiles, and theoretical utility of the emerging profiles (Johnson, 2021). We follow recommendations from Johnson (2021) in determining the appropriate variance-covariance specification. This involves systematically varying and evaluating two conditions, namely whether the variance in each profile is equal, or allowed to differ, and whether the indicators are allowed to covary over and above the relationship they share due to being in the same profile (along with an increasing number of profiles).

Measures

All items were answered on a 7-point scale from 1 (= *do not agree at all*) over 4 (= *neutral*) to 7 (= *agree completely*). The following measures are based on the results of a Promax-rotated exploratory factor analysis, which is described in detail in the Supplement (see <https://osf.io/v56ra>).

Conspiracy Beliefs

Conspiracy beliefs were measured using five items from the Conspiracy Mentality Questionnaire (Bruder et al., 2013), e.g., “I think that many very important things happen in the world, which the public is never informed about,” and four items that measured belief in specific conspiracy theories regarding the coronavirus, e.g., “I believe that Bill Gates was involved in putting the Coronavirus in the world;” (Liekefett et al., 2021). The scale demonstrated good internal consistency ($\alpha = .85$).

Coronavirus Downplaying

To measure coronavirus downplaying, we used three self-developed items, such as “I think that the Coronavirus is no worse than a normal flu.” The Cronbach’s α for this scale was .68.

Esotericism

We used a variety of items to measure esoteric beliefs: two items from the Revised Paranormal Belief Scale (e.g., “A person’s thoughts can influence the movement of a physical object;” Tobacyk, 2004), two items that measure anthroposophical beliefs (e.g., “Alternative medicine should be equated with conventional medicine;” Nachtwey et al., 2020), and three items from a short version of the Personality Styles and Disorder Inventory to measure schizotypy (e.g., “I believe in thought transference;” Hain et al., 2016). Internal consistency for this scale was good ($\alpha = .89$).

Opposition to Vaccination

We used three self-developed items to measure skepticism toward the COVID-19 vaccine, particularly regarding

compulsory vaccination (e.g., “I am scared that I might be forced to get a vaccination against COVID-19”). The scale’s Cronbach’s α was .75.

Financial Worries

Two self-developed items measured participants’ financial concerns (e.g., “In the context of the Coronavirus pandemic, I worry that I will have financial losses,” $r = .81$).

Economic Anxiety

Two self-developed items measured participants’ anxiety about the impact of the pandemic on the economy (e.g., “In the context of the Coronavirus pandemic, I worry that there could be an economic crisis,” $r = .67$).

Political Ideology

Participants indicated their agreement to the following statements:

- (1) I am left-wing,
- (2) I am right-wing, and
- (3) I am directly in the center.

Including each item as a separate dimension allows to differentiate complex patterns of political self-identification. For instance, if forced to place themselves on a single left-right scale, participants who reject any political label would most likely choose the scale midpoint. Similarly, participants who identify as directly in the center (as many protest supporters do, see Grande et al., 2021) would also choose the midpoint.

Racism

Racism was measured using five items from the Questionnaire on Right-Wing Extremist Attitudes – Leipziger form (Decker, Hinz, et al., 2013, e.g. “Foreigners only come here to take advantage of our welfare state”) and from Zick et al. (2016), e.g., “Because of the many Muslims, I feel like a stranger in my own country” ($\alpha = .92$).

Antisemitism

We used three items from Imhoff (2010), for example, “With the policies that Israel is pursuing, I can well understand that people have something against Jews,” to measure antisemitism. We constructed a mean score of these items ($\alpha = .80$).

Results

All data and analysis scripts relevant for reproducing these results can be found on OSF: <https://osf.io/v56ra>.

Preliminary Analyses

Descriptive Statistics and Correlations

Table 1 displays descriptive statistics and correlations for the variables of interest. Overall, agreement to conspiracy beliefs, coronavirus downplaying, esotericism, vaccine hesitancy, financial worries, economic anxiety, and center ideology was high – all means were above the scale mean. Many scales were positively correlated with each other, for instance, conspiracy beliefs, downplaying, and esotericism. Most negative correlations emerged with left-wing ideology (e.g., with conspiracy beliefs, downplaying, economic anxiety, center ideology, racism, and antisemitism). Figure 1 shows histograms for all variables. It can be seen that there are some variables with only very little variance, namely coronavirus downplaying, vaccine hesitancy, and economic anxiety. These appear to be beliefs that most protestors agree on.

Latent Profile Analysis

Identifying the Best-Fitting Model

We used Mplus version 7.4 to estimate four model types with different variance-covariance specifications (Bauer & Curran, 2003; Johnson, 2021; Pastor et al., 2007; Rosenberg et al., 2018). We present the results for all models (Table S2) and a detailed description of the model selection process in the Supplement (<https://osf.io/v56ra>). From all models that could be estimated successfully, the four-profile model with equal covariances and variances provided the best fit, as indicated by lowest BIC and SABIC values, and well-differentiated profiles with balanced profile sizes (see Tables S3 and S4 for detailed model results).

Description of the Best-Fitting Model

A visual depiction of this model is shown in Figure 2. All four profiles are characterized by high mean scores on conspiracy beliefs, coronavirus downplaying, vaccine hesitancy, financial worries, and economic anxiety. These appear to be beliefs that most protestors share. Regarding esotericism, all profiles have moderately high scores. However, there appears to be some variance within the profiles on esotericism, as indicated by the relatively large *SD* around the mean. The variables most important for differentiating between the profiles appear to be socio-political. The largest profile ($n = 650$, 38.24%) is characterized by low scores on left and right ideology, high scores on center ideology, and moderate scores on racism and antisemitism. We label this class Centrists. The second largest profile ($n = 421$, 24.77%) is similar to the Centrist

Table 1. Means (*M*), *SD*, and correlations with confidence intervals

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Conspiracy beliefs	5.64	1.01	—									
2. Downplaying	6.51	0.79	.42**	—								
			[.38, .46]									
3. Esotericism	4.49	1.45	.41**	.17**	—							
			[.37, .45]	[.13, .22]								
4. Vaccine hesitancy	6.41	1.03	.14**	.16**	−.09**	—						
			[.10, .19]	[.12, .21]	[−.14, −.04]							
5. Financial worries	5.50	1.63	.22**	.09**	.01	.31**	—					
			[.18, .27]	[.04, .13]	[−.04, .06]	[.26, .35]						
6. Economic anxiety	6.46	0.86	.26**	.17**	.00	.31**	.49**	—				
			[.22, .30]	[.13, .22]	[−.04, .05]	[.27, .35]	[.45, .52]					
7. Left-wing	2.79	1.78	−.19**	−.09**	−.08**	−.00	−.09**	−.08**	—			
			[−.23, −.14]	[−.14, −.05]	[−.13, −.03]	[−.05, .04]	[−.14, −.04]	[−.13, −.03]				
8. Right-wing	2.29	1.56	.04	−.01	−.08**	−.01	.03	.02	.08**	—		
			[−.00, .09]	[−.06, .03]	[−.13, −.03]	[−.06, .04]	[−.01, .08]	[−.03, .06]	[.03, .13]			
9. Center	4.34	1.93	.08**	.07**	.06*	.03	.09**	.06*	−.22**	−.03	—	
			[.03, .12]	[.02, .12]	[.01, .10]	[−.01, .08]	[.04, .14]	[.01, .10]	[−.27, −.18]	[−.07, .02]		
10. Racism	3.38	1.67	.43**	.17**	.10**	.03	.18**	.16**	−.37**	.30**	.09**	—
			[.39, .47]	[.13, .22]	[.05, .14]	[−.02, .08]	[.13, .22]	[.11, .20]	[−.41, −.33]	[.25, .34]	[.04, .13]	
11. Antisemitism	2.62	1.45	.36**	.11**	.20**	−.00	.12**	.04	−.15**	.16**	.02	.44**
			[.32, .40]	[.06, .15]	[.16, .25]	[−.05, .04]	[.07, .16]	[−.00, .09]	[−.20, −.11]	[.11, .20]	[−.02, .07]	[.40, .47]

Note. Values in square brackets indicate the 95% confidence interval for each correlation. *indicates $p < .05$. **indicates $p < .01$.

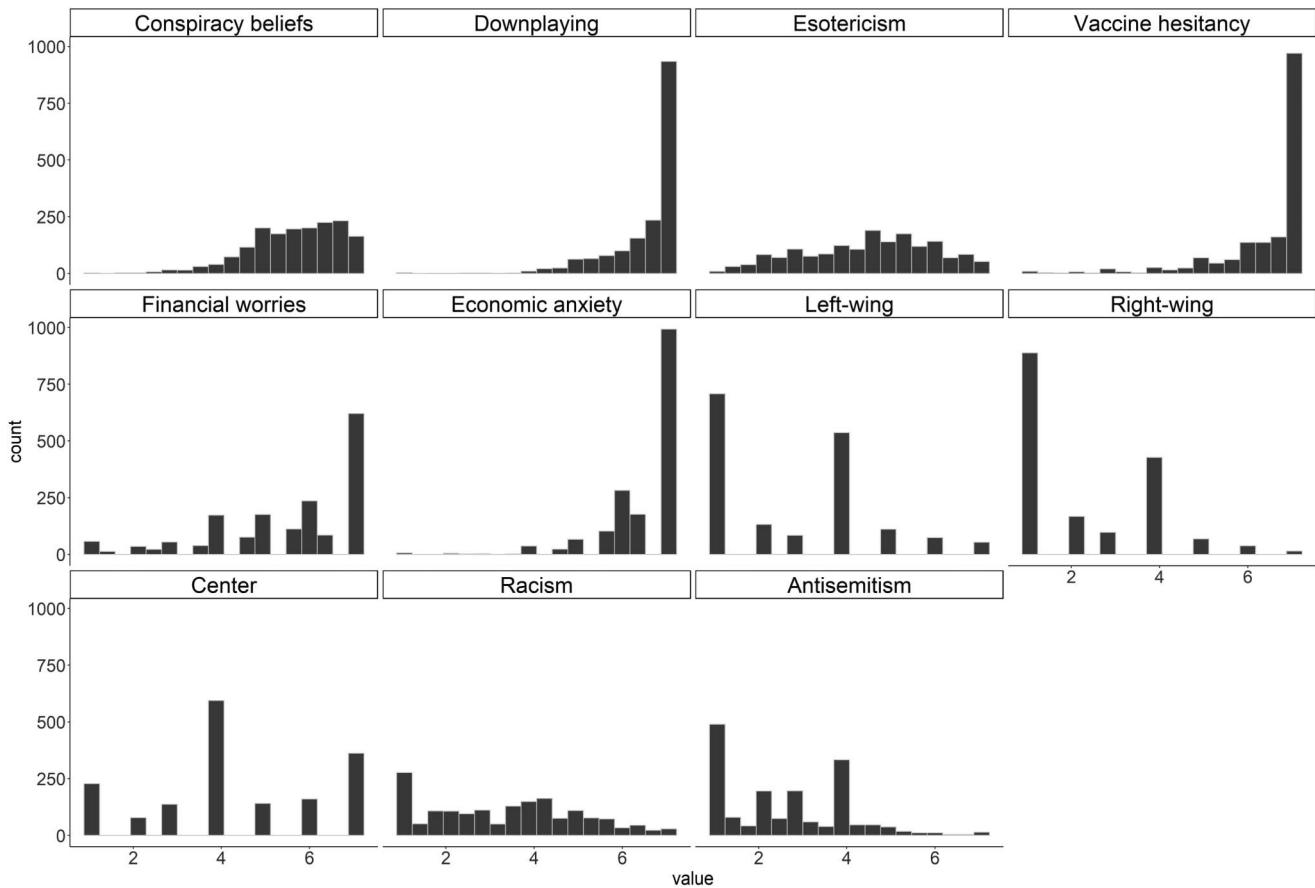


Figure 1. Histograms.

profile, with the exception that it moderately agrees to left, right, and center ideology. We label this profile Politically Undifferentiated. The third largest profile ($n = 407$, 23.94%) consists of participants who identify most strongly as left-wing, reject right-wing ideology, and score lowest on racism and antisemitism. We label this profile Left-wingers. The smallest profile consists of Right-wingers ($n = 222$, 13.06%). These participants reject left-wing ideology and score highest on right-wing ideology, racism, and antisemitism.

Differences in Demographic Variables

We explored whether the profiles differed in important demographic characteristics, namely gender, age, level of education, and subjective social status. To do so, we applied a three-step procedure developed by Lanza et al. (2013), which computes the conditional distribution of the distal variable (i.e., the demographic characteristics) given class membership (Osborne & Sibley, 2017). In the Centrist and Left-wing profile, the probability of identifying as female was significantly greater than in the Right-wing and Politically Undifferentiated profile. Regarding age, Centrists

($\chi^2(1) = 17.36$, $p < .001$) and Left-wingers ($\chi^2(1) = 11.18$, $p = .001$) were significantly older than the Politically Undifferentiated. Further, Left-wingers were significantly higher educated than Right-wingers ($\chi^2(1) = 15.59$, $p < .001$) and Centrists ($\chi^2(1) = 30.56$, $p < .001$). Politically Undifferentiated were significantly higher educated than Right-wingers ($\chi^2(1) = 5.84$, $p = .016$) and Centrists ($\chi^2(1) = 11.75$, $p = .001$). Right-wingers indicated a significantly higher subjective social status than Left-wingers ($\chi^2(1) = 4.61$, $p = .032$) and Centrists ($\chi^2(1) = 15.52$, $p < .001$). Politically Undifferentiated indicated a significantly higher social status than Centrists ($\chi^2(1) = 8.52$, $p = .044$).

Discussion

Media reports about the antilockdown protests in Germany described a diverse mix of protestors: Conspiracy theorists, antivaxxers, esoterics, and right-wing extremists appeared to be marching side by side (Pantenburg et al., 2021). However, it was also frequently emphasized that not all participants

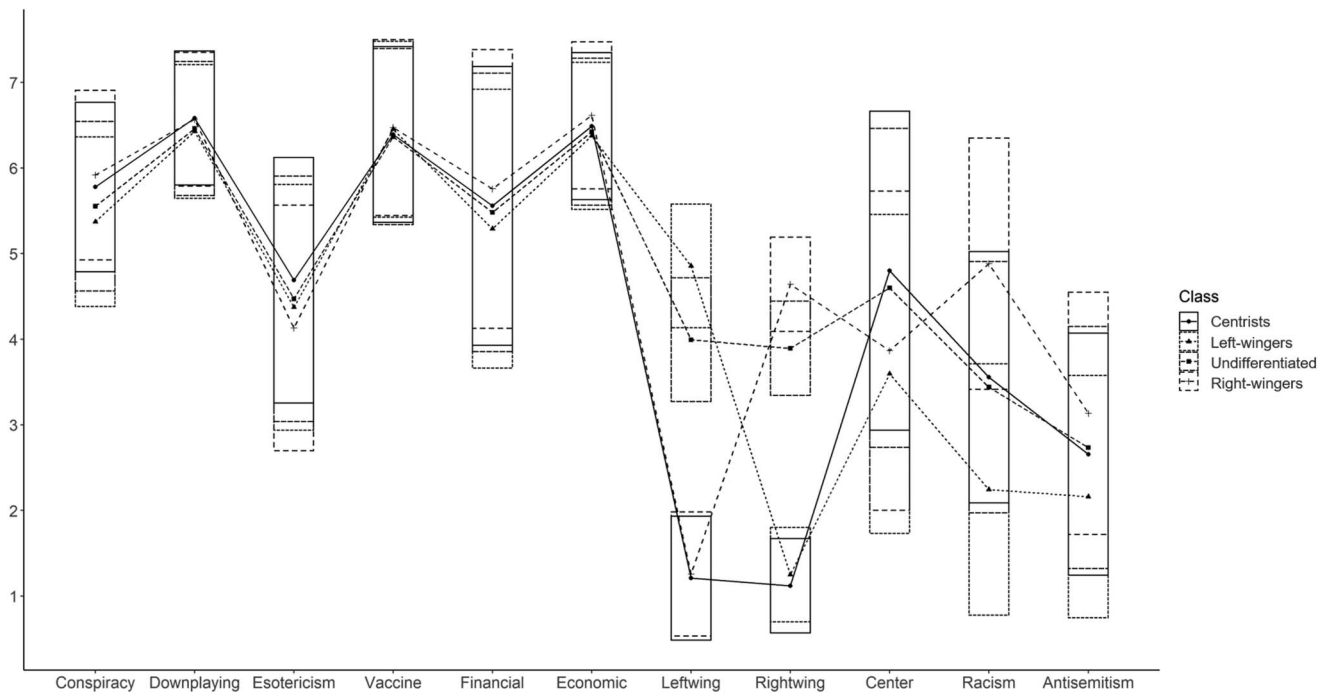


Figure 2. Item profile plot. To produce this plot, we used the MplusAutomation in tidyLPA (Rosenberg et al., 2018).

agreed with the more radical ideas endorsed by some protestors and that some mainly wanted to express economic concerns about the impact of the protective measures (Callison & Slobodian, 2021; Deutschlandfunk, 2022; RND/dpa, 2020). This suggests that protestors should vary in the degree to which they endorse conspiracy beliefs, esotericism, vaccine hesitancy, and right-wing beliefs. The goal of this research was to investigate this ostensible heterogeneity of antilockdown protestors in Germany and examine what they might (or might not) have in common. We conducted a latent profile analysis, which identified subgroups of protestors with similar response patterns on a number of variables relevant to the protests. In some regards, the protestors in our sample demonstrated striking similarities: Almost all indicated an openness toward conspiracy theories, misinformation, vaccine hesitancy, esotericism, and alternative medicine. Differences between the subgroups were largely determined by sociopolitical ideology.

About one quarter of participants could be described as **Left-wingers**: They identified most strongly with left-wing political ideology and scored relatively low on racism and antisemitism. We also observed a smaller profile of **Right-wingers**: These participants most strongly endorsed right-wing ideology and scored highest on racism and antisemitism. Members of this profile were more likely to be male and less educated and to indicate a higher subjective social status. However, the majority of protestors could be described as either **Centrists** or **Politically Undifferentiated**. Centrists

rejected both left- and right-wing ideological labels and positioned themselves directly in the center, whereas Politically Undifferentiated moderately endorsed all political labels. Both of these profiles took an *undecided* stance toward racism and antisemitism: Overall, they neither agreed nor disagreed with these constructs.

The distinction between Centrists and Politically Undifferentiated is interesting. On the traditional left-right self-placement scale, it is often unclear what the center position means (Rodon, 2015): On the one hand, people may interpret the center as the midpoint of what left and right stand for and choose this position to express their genuinely moderate ideology (consistent with our Centrist profile, whose members endorse the center position and reject left- and right-wing labels). On the other hand, it may reflect an undifferentiated ideological stance, and express “citizens struggle to use ideology with both sophistication and coherence.” This may correspond to our Politically Undifferentiated profile, whose members do not appear to possess a clear ideological identification and moderately agree to all positions. Thus, these two profiles appear to capture distinct political stances that are in between the traditional labels of left and right (Rodon, 2015). Instead of using the traditional left-right scale, we asked protestors for their endorsement of being left, being right, and being center separately in this study. This allowed us to capture these complexities in the movement’s political orientation.

Beyond these ideological differences, almost all participants downplayed the dangers of the coronavirus, were concerned about compulsory vaccinations, and worried about the financial and economic consequences of the protective measures. Perhaps more surprisingly, conspiracy beliefs and esotericism were, on average, endorsed to a similar extent across all four profiles. That is, no profile emerged that clearly rejected esoteric or conspiracy beliefs. These beliefs are connected by common themes. For example, they may indicate a desire to defend the status quo from change: The dangers of the coronavirus may be downplayed, new vaccines may be rejected, or economic concerns may be put front and center to avert the changes that the lockdown measures may introduce to the status quo (Jost et al., 2017). Such a resistance toward change can motivate protests in defense of the status quo (Jost et al., 2017; Osborne et al., 2019). However, conspiracy beliefs and esotericism are less likely to reflect an endorsement of the status quo: They rather indicate an alternative worldview that is detached from official, mainstream explanations (Ward & Voas, 2011). Conspiracy beliefs, esotericism, downplaying of the coronavirus, and vaccine hesitancy can all be considered examples of antisience attitudes (Philipp-Muller et al., 2022): Their adherents reject mainstream scientific knowledge, distrust official institutions, and claim to possess secret, special, or higher knowledge that is undetectable by current scientific methods (Pöhlmann, 2021). Consistent with the notion of conspiratoriality, such unwarranted claims about society and the nature of the universe appear to be a commonality of protestors with diverse sociopolitical backgrounds.

Notably, across the whole sample, esotericism was positively correlated with racism and antisemitism (see Table 1). The link between esotericism and right-wing ideology has a long history in Germany (Klump, 2007). Right-wing groups often refer to irrational or mythical ideas to justify beliefs about inequalities between groups. For example, they perceive the German (*Germanic*) people as spiritually or morally superior and in need of protection from outside influences. Further, a narrative of a glorified *return to nature* becomes connected to ideas of *ancestral purity* (Klump, 2007). As such, esoteric beliefs may represent a dangerous gateway to misanthropic, right-wing ideologies – a dynamic that may be fueled within the antilockdown movement (Pöhlmann, 2021).

Strengths, Limitations, and Future Research

A strength of this study is the large sample of antilockdown protest participants – a population that is difficult to recruit for scientific surveys. Relying on participants' actual past

behavior (whether they had attended a protest before) further accounts for the potential gap in peoples' intentions and behaviors (Webb & Sheeran, 2006).

However, more research is required to replicate our findings, particularly in other countries. Antilockdown protests around the world likely differ in composition and motives (Haddad, 2021). Consistent with our observations, protests in wealthy, developed countries, such as Germany, the United States, the United Kingdom, Italy, and France, have been described as *big tent* demonstrations that attracted diverse audiences, including vaccine critics and far-right advocates (Carothers, 2020). Yet in poorer, developing countries (e.g., Malawi), antilockdown protests appear to have been more focused on the impact the lockdowns had on people's livelihoods. From a global perspective, antilockdown protests appear diverse, and our findings may predominantly apply to affluent Western countries. Further, the relatively high endorsement of esoteric beliefs, particularly regarding anthroposophy, may be specific to German-speaking countries: Anthroposophy is predominantly practiced in Germany and Switzerland (Ammon et al., 2012). However, other types of complementary and alternative medicine (CAM) share similar principles and are popular around the world (Harris et al., 2012; Peltzer & Pengpid, 2018).

In addition, our sample was most likely not representative of all protest participants. Participation in the study was voluntary and may be subject to self-selection biases. Recruitment largely happened via one specific messenger service (Telegram). Future research should supplement our findings with on-site investigations of protestors who do not use social media.

Due to the centrality of political ideology in differentiating between latent profiles, future research should include more extensive measures of political ideology that capture attitudes to a variety of issues in addition to ideological self-placement (Azevedo & Bolesta, 2021). Although ideological self-placement items are considered "common, economical, and intuitive" (Imhoff et al., 2022, p. 394), there are limitations associated with them: They may be influenced by context-specific interpretations and may be interpreted differently as referring to social or economic issues (Imhoff et al., 2022). Therefore, future research would ideally examine subgroups of protestors on attitudes toward specific political issues, such as immigration, rights of lesbian, gay, bisexual, transgender, intersex, queer, and/or questioning individuals (LGBTIQ+) rights, and economic redistribution.

The LPA approach chosen here is associated with some limitations. In particular, the profile enumeration process entails some subjectivity (Curran & Bauer, 2021), since there is no single fit index that can guide this decision in isolation (Johnson, 2021; Nylund-Gibson & Choi, 2018). Especially in large samples, it happens frequently that fit indices keep

getting better and better as more profiles are added to the model, and bootstrapped likelihood ratio tests keep giving significant results (Curran & Bauer, 2021). It remains possible that models with more profiles, or with varying variances and covariances, would have provided an even better fit than the chosen solution. However, the goal of LPA is not necessarily to recover the *literally true* number of latent profiles (in many cases, there may not be a true number of latent profiles), but to evaluate “different possible approximations to the data, trying to discern how many classes it takes to recover the primary structure without taking so many that we are starting to capture noise or nuisance variation” (Curran & Bauer, 2021). In that sense, we believe that the four-profile model presents an interpretable and useful approximation of the heterogeneity among protest participants at the time that our survey was conducted.

Finally, the antilockdown movement is probably dynamically changing (Louis et al., 2020). Our subgroup analysis represents a snapshot of the movement from the time where our survey was conducted and should ideally be supplemented with longitudinal investigations (e.g., latent transition analyses) of how these subgroups relate to each other over time. Relatedly, future research should examine radicalization processes within the movement. The Querdenken movement has been described as being in the process of radicalization, as evidenced by more negative and violent encounters with the police (Bingener & Soldt, 2022). Our finding that most protest participants were open to conspiracy beliefs adds to this concern: Conspiracy beliefs have been associated with violent extremist intentions, and the perpetrators of many recent terrorist attacks have referenced conspiracy beliefs in their manifestos (Rottweiler & Gill, 2020).

Conclusion

Antilockdown movements in Europe and the United States have been described as a strange mélange of hippies, antivaxxers, conspiracy theorists, and neo-Nazis. The present research sheds some light on the heterogeneity of participants in such protests. We used latent profile analysis to derive subgroups of protest participants and observed that participants mostly differed in sociopolitical ideology, while conspiracy beliefs, downplaying of the coronavirus, esotericism, and vaccine hesitancy did not differentiate between protestors. These beliefs share a rejection of scientific evidence and claim to possess a secret, higher knowledge or *enlightenment* that sets its adherents apart from the mainstream (Pöhlmann, 2021). Belief in such alternative knowledge appears to be a common thread that unites protestors from diverse political backgrounds (Pantenburg et al., 2021).

References

- Azevedo, F., & Bolesta, D. (2021). *Measuring ideology: Current practices, consequences, and recommendations*. <https://measuring.ideology.flavioazevedo.com/>
- Bareket-Bojmel, L., Shahar, G., & Margalit, M. (2021). Covid-19-related economic anxiety is as high as health anxiety: Findings from the USA, the UK, and Israel. *International Journal of Cognitive Therapy*, 14(3), 566–574. <https://doi.org/10.1007/s41811-020-00078-3>
- Bauer, D. J., & Curran, P. J. (2003). Distributional assumptions of growth mixture models: Implications for overextraction of latent trajectory classes. *Psychological Methods*, 8(3), 338–363. <https://doi.org/10.1037/1082-989X.8.3.338>
- BBC (2020, April 21). *Coronavirus lockdown protest: What's behind the US demonstrations?* <https://www.bbc.com/news/world-us-canada-52359100>
- Belghaus, N., Orde, S., & Jakob, C. (2020, December 19). *Gegen den Stich: Impfgegner und die Coronapandemie [Against the sting: opponents of vaccination and the Corona pandemic]*. *Taz*. <https://taz.de/Impfgegner-und-die-Coronapandemie/!5735702/>
- Bilewicz, M., & Krzeminski, I. (2010). Anti-semitism in Poland and Ukraine: The belief in Jewish control as a mechanism of scapegoating. *International Journal of Conflict and Violence*, 4(2), 234–243. <https://doi.org/10.4119/ijcv-2828>
- Bingener, R., & Soldt, R. (2022, January 4). *Zehntausende Demonstranten: Querdenker radikalisiert sich [Tens of thousands of demonstrators: Lateral thinkers radicalize themselves]*. *Frankfurter Allgemeine Zeitung*. <https://www.faz.net/aktuell/politik/inland/querdenker-radikalisierung-seit-der-debatte-ueber-corona-impfpflicht-17715640.html>
- Bruder, M., Haffke, P., Neave, N., Nouripanah, N., & Imhoff, R. (2013). Measuring individual differences in generic beliefs in conspiracy theories across cultures: Conspiracy mentality questionnaire. *Frontiers in Psychology*, 4, 1–15. <https://doi.org/10.3389/fpsyg.2013.00225>
- Callison, W., & Slobodian, Q. (2021, January 12). *Coronapoltics from the Reichstag to the capitol*. *Boston Review*. <https://www.bostonreview.net/articles/quinn-slobodian-toxic-politics-coronakspeticism/>
- Carothers, T. (2020). The global rise of anti-lockdown protests—and what to do about it. *World Politics Review*. <https://www.worldpoliticsreview.com/articles/29137/amid-the-covid-19-pandemic-protest-movements-challenge-lockdowns-worldwide>
- Connolly, K. (2020, July 21). *German Jewish leaders fear rise of antisemitic conspiracy theories linked to Covid-19*. *The Guardian*. <https://www.theguardian.com/world/2020/jul/21/german-jewish-leaders-fear-rise-of-antisemitic-conspiracy-theories-linked-to-covid-19>
- Curran, P. J., & Bauer, D. (2021, November 11). What's the best way to determine the number of latent classes in a finite mixture analysis? *CenterStat*. <https://centerstat.org/class-enumeration/>
- De la Riva, M. (2022, January 12). *Protestbewegungen: Aufstand der Entfremdeten [Protest movements: Uprising of the alienated]*. *Frankfurter Allgemeine Zeitung*. <https://www.faz.net/aktuell/karriere-hochschule/hoersaal/querdenker-proteste-wie-so-widerspruechliches-zusammenfinden-kann-17725600.html?premium>
- Decker, O., Hinz, A., Geißler, N., & Brähler, E. (2013). Fragebogen zur rechtsextremen Einstellung - Leipziger Form [Questionnaire on right-wing extremist attitudes - Leipzig form]. In O. Decker, J. Kiess, & E. Brähler (Eds.), *Rechtsextremismus der Mitte [Right-wing extremism of the center]* (pp. 197–212). Psychosozial-Verlag. <https://doi.org/10.30820/9783837966367-197>

- Decker, O., Kiess, J., & Brähler, E. (Eds.). (2013). *Rechtsextremismus der Mitte [Right-wing extremism of the center]*. Psychosozial-Verlag. <https://doi.org/10.30820/9783837966367>
- Deutschlandfunk (2022, May 6). *Corona-Demonstrationen: Wer marschiert da zusammen? [Corona demonstrations: Who is marching together?]*. <https://www.deutschlandfunk.de/corona-demonstrationen-wer-marschiert-da-zusammen-100.html#Neonazis>
- Douglas, K. M., Uscinski, J. E., Sutton, R. M., Cichocka, A., Nefes, T., Ang, C. S., & Deravi, F. (2019). Understanding conspiracy theories. *Political Psychology, 40*(S1), 3–35. <https://doi.org/10.1111/pops.12568>
- Düker, R. (2021). "Querdenken" mit Rudolf Steiner ["Lateral thinking" with Rudolf Steiner]. <https://www.zeit.de/2021/06/corona-proteste-querdenken-rudolf-steiner-waldorfpaedagogik-anthroposophie>
- Dyrendal, A., Robertson, G. D., & Asprem, E. (Eds.). (2018) *Handbook of conspiracy theory and contemporary religion*. BRILL. <https://doi.org/10.1163/9789004382022>
- Fernandes, N. (2020). *Economic effects of coronavirus outbreak (COVID-19) on the world economy*. IESE Business School Working Paper No. WP-1240-E. <https://ssrn.com/abstract=3557504> or <http://dx.doi.org/10.2139/ssrn.3557504>
- Fetzer, T., Hensel, L., Hermle, J., & Roth, C. (2021). Coronavirus perceptions and economic anxiety. *The Review of Economics and Statistics, 103*(5), 968–978. https://doi.org/10.1162/rest_a_00946
- Fiedler, M., & Starzmann, P. (2020, May 10). *Seit an Seit mit Extremisten: Wen ziehen die Corona-Proteste an? [Side by side with extremists: Who is drawn to the Corona protests?]*. Der Tagesspiegel. <https://www.tagesspiegel.de/politik/seit-an-seit-mit-extremisten-wen-ziehen-die-corona-proteste-an/25817450.html>
- Flade, F., Mascolo, G., & Steinke, R. (2020, November 2). *Corona-Leugner: Da braut sich was zusammen [Corona deniers: Something is brewing]*. Süddeutsche Zeitung. <https://www.sueddeutsche.de/politik/corona-proteste-regeln-1.5102560>
- Grande, E., Hutter, S., Hunger, S., & Kanol, E. (2021). *Alles Covidioten? Politische Potenziale des Corona-Protests in Deutschland [All Covidiot? Political potential of the Corona protest in Germany]*. Discussion Paper ZZ 2021-601. Wissenschaftszentrum Berlin für Sozialforschung.
- Haddad, M. (2021, February 2). *Mapping coronavirus anti-lockdown protests around the world*. Al Jazeera. <https://www.aljazeera.com/news/2021/2/2/mapping-coronavirus-anti-lockdown-protests-around-the-world>
- Hain, S., Schermelleh-Engel, K., Freitag, C., Louwen, F., & Oddo, S. (2016). Development of a short form of the Personality Styles and Disorder Inventory (PSDI-6). *European Journal of Psychological Assessment, 32*(4), 283–290. <https://doi.org/10.1027/1015-5759/a000260>
- Halafoff, A., Marriott, E., Fitzpatrick, R., & Weng, E. (2022). Selling (con) spirituality and COVID-19 in Australia: Convictions, complexity and countering dis/misinformation. *Journal for the Academic Study of Religion, 35*(2), 141–167. <https://doi.org/10.1558/jasr.22810>
- Harris, P. E., Cooper, K. L., Relton, C., & Thomas, K. J. (2012). Prevalence of complementary and alternative medicine (CAM) use by the general population: A systematic review and update. *The International Journal of Clinical Practice, 66*(10), 924–939. <https://doi.org/10.1111/j.1742-1241.2012.02945.x>. <http://arxiv.org/pdf/2012.02945v1>
- Hippert, J., & Saul, P. (2021, April 28). *Querdenken: Von Stuttgart bis auf die Treppen des Reichstagsgebäudes [From Stuttgart to the stairs of the Reichstag building]*. Süddeutsche Zeitung. <https://www.sueddeutsche.de/politik/querdenken-chronologie-bundestag-1.5279496>
- Holzer, B. (2021). Zwischen Protest und Parodie: Strukturen der "Querdenken"-Kommunikation auf Telegram (und anderswo) [Between protest and parody: Structures of "lateral thinking" communication on Telegram (and elsewhere)]. In S. Reichardt (Ed.), *Die Misstrauensgemeinschaft der "Querdenker": Die Corona-Proteste aus kultur- und sozialwissenschaftlicher Perspektive [The community of mistrust of the "lateral thinkers": The Corona protests from a cultural and social science perspective]*. Campus Verlag.
- Hornsey, M. J., Harris, E. A., & Fielding, K. S. (2018). The psychological roots of anti-vaccination attitudes: A 24-nation investigation. *Health Psychology, 37*(4), 307–315. <https://doi.org/10.1037/hea0000586>
- Howard, M. C. (2016). A review of exploratory factor analysis decisions and overview of current practices: What we are doing and how can we improve? *International Journal of Human-Computer Interaction, 32*(1), 51–62. <https://doi.org/10.1080/10447318.2015.1087664>
- Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology, 27*(1), 99–114. <https://doi.org/10.1007/s10869-011-9231-8>
- Imhoff, R., & Bruder, M. (2014). Speaking (un-)truth to power: Conspiracy mentality as a generalised political attitude. *European Journal of Personality, 28*(1), 25–43. <https://doi.org/10.1002/per.1930>
- Imhoff, R., & Lamberty, P. (2020). A bioweapon or a hoax? The link between distinct conspiracy beliefs about the coronavirus disease (COVID-19) outbreak and pandemic behavior. *Social Psychological and Personality Science, 11*(8), 1110–1118. <https://doi.org/10.1177/1948550620934692>
- Imhoff, R. (2010). Zwei Formen des modernen Antisemitismus? Eine Skala zur Messung primären und sekundären Antisemitismus [Two forms of modern antisemitism? A scale to measure primary and secondary antisemitism]. *Conflict & Communication Online, 9*(1), 191–199.
- Imhoff, R., Zimmer, F., Klein, O., António, J. H. C., Babinska, M., Bangerter, A., Bilewicz, M., Blanuša, N., Bovan, K., Bužarovska, R., Cichocka, A., Delouvée, S., Douglas, K. M., Dyrendal, A., Etienne, T., Gjonneska, B., Graf, S., Gualda, E., Hirschberger, G., ..., & van Prooijen, J.-W. (2022). Conspiracy mentality and political orientation across 26 countries. *Nature Human Behaviour, 6*(3): 392–403. <https://doi.org/10.1038/s41562-021-01258-7>
- Jennings, W., Stoker, G., Bunting, H., Valgarðsson, V. O., Gaskell, J., Devine, D., McKay, L., & Mills, M. C. (2021). Lack of trust, conspiracy beliefs, and social media use predict COVID-19 vaccine hesitancy. *Vaccines, 9*(6). <https://doi.org/10.3390/vaccines9060593>
- Johnson, S. K. (2021). Latent profile transition analyses and growth mixture models: A very non-technical guide for researchers in child and adolescent development. *New Directions for Child and Adolescent Development, 2021*(175), 111–139. <https://doi.org/10.1002/cad.20398>
- Jost, J. T., Becker, J., Osborne, D., & Badaan, V. (2017). Missing in (collective) action. *Current Directions in Psychological Science, 26*(2), 99–108. <https://doi.org/10.1177/0963721417690633>
- Klump, A. (2007). *Rechtsextremismus und Esoterik—Verbindungslinien, Erscheinungsformen, offene Fragen [Right-wing extremism and esotericism—connecting lines, manifestations, open questions]*. <https://web.archive.org/web/20071017235511/http://www.extremismus.com/texte/esorex.htm>
- Kofta, M., Soral, W., & Bilewicz, M. (2020). What breeds conspiracy antisemitism? The role of political uncontrollability and uncertainty in the belief in Jewish conspiracy. *Journal of Personality and Social Psychology, 118*(5), 900–918. <https://doi.org/10.1037/pspa0000183>
- Koos, S. (2021a). Konturen einer "Misstrauensgemeinschaft": Die soziale Zusammensetzung der Corona-Proteste und die Motive der Teilnehmer:innen. [Contours of a "community of mistrust": The social composition of the Corona protests and the motives of the participants]. In S. Reichardt (Ed.), *Die Misstrauensgemeinschaft*

- der "Querdenker": Die Corona-Protteste aus kultur- und sozialwissenschaftlicher Perspektive [The community of mistrust of the "lateral thinkers": The Corona protests from a cultural and social science perspective]. Campus Verlag.
- Koos, S. (2021b). Die "Querdenker". Wer nimmt an Corona-Prottesten teil und warum? [The "lateral thinkers". Who is taking part in Corona protests and why?]. Forschungsbericht Universität Konstanz.
- Küppers, A., & Reiser, M. (2021). 'It is not worse than a flu'—COVID-19 Scepticism and the Role of Trust and Far-Right Attitudes in Germany. <https://doi.org/10.31235/osf.io/afnmz>
- Lanza, S. T., Tan, X., & Bray, B. C. (2013). Latent class analysis with distal outcomes: A flexible model-based approach. *Structural Equation Modeling: A Multidisciplinary Journal*, 20(1), 1–26. <https://doi.org/10.1080/10705511.2013.742377>
- Latkin, C. A., Dayton, L., Moran, M., Strickland, J. C., & Collins, K. (2021). Behavioral and psychosocial factors associated with COVID-19 skepticism in the United States. *Current Psychology*, 41, 7918–7926. <https://doi.org/10.1007/s12144-020-01211-3>
- Lewandowsky, S., Gignac, G. E., & Oberauer, K. (2013). The role of conspiracist ideation and worldviews in predicting rejection of science. *PLoS One*, 8(10), e75637. <https://doi.org/10.1371/journal.pone.0075637>
- Liekefett, L. (2022). *Data and supplementary materials for "Identifying Subgroups of Anti-Lockdown Protestors in Germany"*. <https://osf.io/v56ra>
- Liekefett, L., Christ, O., & Becker, J. C. (2022). Can conspiracy beliefs be beneficial? Longitudinal linkages between conspiracy beliefs, anxiety, uncertainty aversion, and existential threat. *Personality and Social Psychology Bulletin*. <https://doi.org/10.1177/01461672211060965>
- Lobato, E., Mendoza, J., Sims, V., & Chin, M. (2014). Examining the relationship between conspiracy theories, paranormal beliefs, and pseudoscience acceptance among a university population. *Applied Cognitive Psychology*, 28(5), 617–625. <https://doi.org/10.1002/acp.3042>
- Louis, W., Thomas, E., McGarty, C., Lizzio-Wilson, M., Amiot, C., & Moghaddam, F. (2020). The volatility of collective action: Theoretical analysis and empirical data. *Political Psychology*, 41(S1), 35–74. <https://doi.org/10.1111/pops.12671>
- Merker (2021, November 8). *Querdenker: Gewalttätige Zusammenstöße bei Demo in Leipzig [Lateral thinkers: Violent clashes at demonstration in Leipzig]*. ZEIT ONLINE. <https://www.zeit.de/gesellschaft/zeitgeschehen/2021-11/querdenker-demonstration-leipzig-gewalt-verletzte-polizisten-sachsen-corona>
- Mertens, J. (2020, September 10). Wie viel Reichsdenken steckt im Querdenken? [How much imperial thinking is in lateral thinking?]. *Belltower News*. <https://www.belltower.news/querdenken-711wieviel-reichsdenken-steckt-im-querdenken-104063/>
- Milburn, K. (2020, September 4). *The cosmic right is on the rise in the UK. The left must fight it with reason*. Novara Media. <https://novaramedia.com/2020/09/04/the-cosmic-right-is-on-the-rise-in-the-uk-the-left-must-fight-it-with-reason/>
- Nachtwey, O., Schäfer, R., & Frei, N. (2020). *Politische Soziologie der Corona-Protteste [Political sociology of the Corona protests]*. <https://doi.org/10.31235/osf.io/zyp3f>
- Naderifar, M., Goli, H., & Ghaljaie, F. (2017). Snowball sampling: A purposeful method of sampling in qualitative research. *Strides in Development of Medical Education*, 14(3)e67670. <https://doi.org/10.5812/sdme.67670>
- Nocun, K., & Lamberty, P. (2020). *Fake Facts — Wie Verschwörungsdenken unser Denken bestimmen [Fake facts—How conspiracy theories determine our thinking]*. Bastei Lübbe AG.
- Nylund-Gibson, K., & Choi, A. Y. (2018). Ten frequently asked questions about latent class analysis. *Translational Issues in Psychological Science*, 4(4), 440–461. <https://doi.org/10.1037/tps0000176>
- Osborne, D., Jost, J. T., Becker, J. C., Badaan, V., & Sibley, C. G. (2019). Protesting to challenge or defend the system? A system justification perspective on collective action. *European Journal of Social Psychology*, 49(2), 244–269. <https://doi.org/10.1002/ejsp.2522>
- Osborne, D., & Sibley, C. G. (2017). Identifying "types" of ideologies and intergroup biases: Advancing a person-centred approach to social psychology. *European Review of Social Psychology*, 28(1), 288–332. <https://doi.org/10.1080/10463283.2017.1379265>
- Oswald, B. (2021). *Querdenker: Wer sie sind—und wie sich die Bewegung entwickelt [Lateral thinkers: Who they are—and how the movement develops]*. <https://www.br.de/nachrichten/deutschland-welt/die-querdenker-eine-heterogene-protestbewegung,S09TvdX>
- Pantenburg, J., Reichardt, S., & Sepp, B. (2021). Wissensparallelwelten der »Querdenker« [Knowledge parallel worlds of "lateral thinkers"]. In S. Reichardt (Ed.), *Die Misstrauensgemeinschaft der "Querdenker": Die Corona-Protteste aus kultur- und sozialwissenschaftlicher Perspektive [The community of mistrust of the "lateral thinkers": The Corona protests from a cultural and social science perspective]*. Campus Verlag.
- Pastor, D. A., Barron, K. E., Miller, B. J., & Davis, S. L. (2007). A latent profile analysis of college students' achievement goal orientation. *Contemporary Educational Psychology*, 32(1), 8–47. <https://doi.org/10.1016/j.cedpsych.2006.10.003>
- Peltzer, K., & Pengpid, S. (2018). Prevalence and determinants of traditional, complementary and alternative medicine provider use among adults from 32 countries. *Chinese Journal of Integrative Medicine*, 24(8), 584–590. <https://doi.org/10.1007/s11655-016-2748-y>
- Philipp-Muller, A., Lee, S. W. S., & Petty, R. E. (2022). Why are people antiscience, and what can we do about it? *Proceedings of the National Academy of Sciences of the United States of America*, 119(30), e2120755119. <https://doi.org/10.1073/pnas.2120755119>
- Pöhlmann, M. (2021). *Rechte Esoterik: Wenn sich alternatives Denken und Extremismus gefährlich vermischen. [Right-wing esotericism: When alternative thinking and extremism mix dangerously]*. Verlag Herder GmbH
- Querdenken. (2022). *Unser Manifest [Our manifest]*. <https://querdenken-711.de/manifest/>
- Rawlings, R. (2012). *Rudolf Steiner's Quackery*. Quackwatch. <https://quackwatch.org/11Ind/steiner/>
- RND/dpa (2020, May 16). *Wissenschaftler: Demonstrierende nicht pauschal ausgrenzen [Scientist: Do not exclude demonstrators across the board]*. <https://www.rnd.de/panorama/wissenschaftler-demonstrierende-nicht-pauschal-ausgrenzen-BDAWIL6US3Z42TSX-D5AFGJP3XY.html>
- RND/dpa (2021, May 23). *Gauk fordert Toleranz für "Querdenker" und "Querdenkerinnen": "Nicht alle, die dort mitlaufen, sind Gefahr für Demokratie" [Gauk calls for tolerance for "lateral thinkers": "Not everyone who runs there is a danger to democracy"]*. <https://www.rnd.de/politik/joachim-gauk-fordert-toleranz-fuer-querdenker-nicht-alle-die-dort-mitlaufen-sind-gefahr-fuer-XUXBLPRBAGCKISBXAONJHAO2MA.html>
- Rodon, T. (2015). Do all roads lead to the center? The unresolved dilemma of centrist self-placement. *International Journal of Public Opinion Research*, 27(2), 177–196. <https://doi.org/10.1093/ijpor/edu028>
- Rosenberg, J., Beymer, P., Anderson, D., van Lissa, C., & Schmidt, J. (2018). tidyLPA: An R package to easily carry out Latent Profile Analysis (LPA) using open-source or commercial software. *Journal of Open Source Software*, 3(30), 978. <https://doi.org/10.21105/joss.00978>
- Röther (2020, September 2). *Esoterik, Rechtsextreme und Proteste gegen Corona-Maßnahmen: Gegen denselben Feind [Esotericism, right-wing extremists and protests against Corona measures: against the same enemy]*. Deutschlandfunk. <https://www.>

- deutschlandfunk.de/esoterik-rechtsextreme-und-proteste-gegen-corona-massnahmen-100.html
- Rottweiler, B., & Gill, P. (2020). Conspiracy beliefs and violent extremist intentions: The contingent effects of self-efficacy, self-control and law-related morality. *Terrorism and Political Violence*, 34(7), 1483–1504. <https://doi.org/10.1080/09546553.2020.1803288>
- Rutjens, B. T., Sengupta, N., van der Lee, R., van Koningsbruggen, G. M., Martens, J. P., Rabelo, A., & Sutton, R. M. (2022). Science skepticism across 24 countries. *Social Psychological and Personality Science*, 13(1), 102–117. <https://doi.org/10.1177/19485506211001329>
- Rutjens, B. T., & van der Lee, R. (2020). Spiritual skepticism? Heterogeneous science skepticism in The Netherlands. *Public Understanding of Science*, 29(3), 335–352. <https://doi.org/10.1177/0963662520908534>
- Salheiser, A., & Richter, C. (2020). *Proteste in der Corona-Pandemie: Gefahr für unsere Demokratie? [Protests in the Corona pandemic: A danger to our democracy?]*. Forschungsinstitut Gesellschaftlicher Zusammenhalt Jena. <https://www.fgz-risc.de/publikationen/details/open-access-proteste-in-der-corona-pandemie-gefahr-fuer-unsere-demokratie>
- Sebastini, A. (2011). *Waldorfpädagogik: Versteinerte Erziehung [Waldorf pedagogy: Petrified education]*. Gesellschaft zur wissenschaftlichen Untersuchung von Parawissenschaften e.V. <https://www.gwup.org/component/content/article/62-anthroposophie/1156-versteinerte-erziehung>
- Speit, A. (2021). *Verqueres Denken: Gefährliche Weltbilder in alternativen Milieus [Strange thinking: Dangerous worldviews in alternative milieus]*. ChLinks Verlag.
- Stark, H. (2020, September 1). *Corona-Proteste: Die neue Wohnzimmer-Radikalität [Corona protests: The new living room radicalism]*. ZEIT ONLINE. <https://www.zeit.de/politik/deutschland/2020-09/corona-proteste-demonstrationen-massnahmen-verschwörungstheorien-coronavirus>
- Steiner, R., & Barton, M. (2013). *Disease, Karma and healing: Spiritual-scientific enquiries into the nature of the human being (Vol. 107)*. Rudolf Steiner Press.
- Swami, V., Coles, R., Stieger, S., Pietschnig, J., Furnham, A., Rehim, S., & Voracek, M. (2011). Conspiracist ideation in Britain and Austria: Evidence of a monological belief system and associations between individual psychological differences and real-world and fictitious conspiracy theories. *British Journal of Psychology*, 102(3), 443–463. <https://doi.org/10.1111/j.2044-8295.2010.02004.x>
- Tobacyk, J. J. (2004). A revised paranormal belief scale. *International Journal of Transpersonal Studies*, 23(1), 94–98. <https://doi.org/10.24972/ijts.2004.23.1.94>
- Uenal, F. (2016). The “Secret Islamization” of Europe: Exploring Integrated threat theory for predicting Islamophobic conspiracy Stereotypes. *International Journal of Conflict and Violence*, 10(1), 93–108. <https://doi.org/10.4119/ijcv-3080>
- Uhrmacher, P. B. (1995). Uncommon schooling: A historical look at Rudolf Steiner, anthroposophy, and Waldorf education. *Curriculum Inquiry*, 25(4), 381–406. <https://doi.org/10.1080/03626784.1995.11076190>
- von Ammon, K., Frei-Erb, M., Cardini, F., Daig, U., Dragan, S., Hegyi, G., Di Roberti Sarsina, P., Sörensen, J., & Lewith, G. (2012). Complementary and alternative medicine provision in Europe—first results approaching reality in an unclear field of practices. *Forschende Komplementärmedizin*, 19(Suppl 2), 37–43. <https://doi.org/10.1159/000343129>
- Ward, C., & Voas, D. (2011). The emergence of spirituality. *Journal of Contemporary Religion*, 26(1), 103–121. <https://doi.org/10.1080/13537903.2011.539846>
- Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin*, 132(2), 249–268. <https://doi.org/10.1037/0033-2909.132.2.249>
- Zick, A., Krause, D., Berghan, W., & Küpper, B. (2016). Gruppenbezogene Menschenfeindlichkeit in Deutschland 2002–2016 [Group-focused enmity in Germany 2002–2016]. In A. Zick, B. Küppers, D. Krause, & herausgegeben für die Friedrich-Ebert-Stiftung von Ralf Melzer (Eds.), *Gespaltene Mitte—Feindselige Zustände: Rechts-extreme Einstellungen in Deutschland 2016 [Divided center—hostile conditions: Right-wing extremist attitudes in Germany 2016]*. Dietz. <https://pub.uni-bielefeld.de/record/2907853>
- Zick, A., Küpper, B., Berghan, W., & Schröter, F. (2019). *Verlorene Mitte, feindselige Zustände: Rechtsextreme Einstellungen in Deutschland 2018–19 [Lost center, hostile conditions: far-right attitudes in Germany 2018–19]*. Dietz.

History

Received June 1, 2022

Revision received November 7, 2022

Accepted November 10, 2022

Published online March 10, 2023

Publication Ethics

Informed consent was obtained from all participants included in the study. This study was approved by the Ethics Committee of the University of Osnabrück.

Authorship

Luisa Liekefett, data curation, formal analysis, methodology, visualization, writing – original draft, writing – review and editing; Ann-Kathrin Bürner, data curation, investigation; Julia C. Becker, conceptualization, project administration, supervision, writing – review and editing. All authors approved the final version of the manuscript.

Open Data

The information needed to reproduce all of the reported results is available at <https://osf.io/v56ra/>.


The online supplementary materials are available at <https://osf.io/v56ra/> (Liekefett, 2022)

Funding

Open access publication enabled by Osnabrück University.

ORCID

Luisa Liekefett

 <https://orcid.org/0000-0001-5669-9613>

Julia C. Becker

 <https://orcid.org/0000-0002-2456-1174>

Luisa Liekefett

Department of Psychology

Osnabrück University

Seminarstr. 20

49074 Osnabrück

Germany

luisa.liekefett@uni-osnabrueck.de