Supplementary Materials for
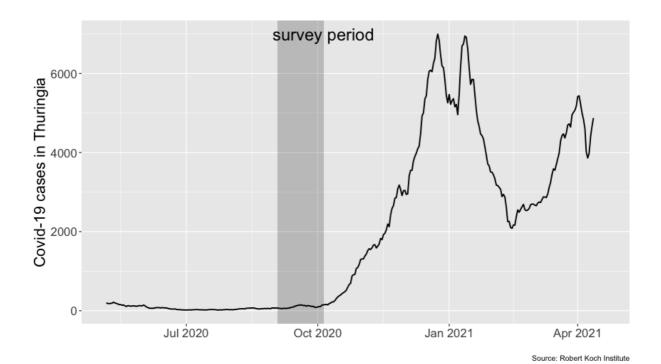

Ideological Extremism or Far-Right Attitudes? The Role of Ideology for
COVID-19 Scepticism

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Figure S.1

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Figure S.1 COVID-19 cases in Thuringia

Table S.1 OLS regression full model (unstandardised regression coefficients; standard error in parentheses)

The dependent variable is an additive index computed of three variables. Next to the variable 'the virus is actually not worse than the flu' that was already used in the logistic regression analysis in the main section of the paper, the two additional items are: 'The danger posed by the coronavirus is greatly exaggerated by the media' and 'I trust my feelings about dealing with Corona more than so-called experts'. All items were answered on a four-point scale ('fully agree'; 'mostly agree'; 'mostly disagree'; 'fully disagree').

	Dependent variable: COVID-19 scepticism (3-item index)	
Regressors	Model (1)	Model (2)
Far-right attitudes	1.466***	1.450***
	(0.337)	(0.337)
Ideological extremism	0.044	
	(0.070)	
Very far-right (dummy)		0.675
		(0.881)
Very far-left (dummy)		0.627
		(2.060)
AfD	-0.155	-0.121
	(0.549)	(0.558)
CDU	-0.157	-0.159
	(0.451)	(0.451)
FDP	0.718	0.685
	(1.021)	(1.112)
Greens	-0.979**	-0.927**
	(0.328)	(0.309)
Left	-0.359	-0.317
	(0.329)	(0.308)
SPD	-0.379	-0.336
	(0.555)	(0.550)
Other	0.282	0.284
	(0.667)	(0.641)
Age	-0.009	-0.010
	(0.009)	(0.009)
Gender (female)	0.150	0.156
	(0.249)	(0.249)
Education (A-levels or higher)	0.074	0.078
	(0.203)	(0.204)
Political interest	-0.191	-0.201
	(0.153)	(0.155)
Affectedness by COVID-19 (no)	0.328	0.337
	(0.280)	(0.287)
Affectedness by COVID-19 (no, but risk group)	0.093	0.126
	(0.403)	(0.404)
Risk perception (health) (high risk)	-0.651**	-0.666**
	(0.251)	(0.253)
Risk perception (pers. econ. situation) (high risk)	-0.369	-0.361
	(0.322)	(0.323)
Conspiracy belief	0.667	0.682*
	(0.345)	(0.347)
Trust federal government (low)	1.346**	1.318**
	(0.414)	(0.424)
Trust federal government (medium)	0.449	0.451
	(0.332)	(0.331)
Trust Robert Koch Institute (low)	2.525***	2.523***
	(0.471)	(0.477)
Trust Robert Koch Institute (medium)	1.327***	1.336***
	(0.385)	(0.386)
Intercept	1.237	1.322
	(0.742)	(0.747)
Observations	697	697
Adjusted R^2	0.507	0.508

Table S.2 Logistic regression full model (DV = dummy from 3 items); OR with 95% confidence interval

The dependent variable is an additive index computed of three variables. Next to the variable 'the virus is actually not worse than the flu' that was already used in the logistic regression analysis in the main section of the paper, the two additional items are: 'The danger posed by the coronavirus is greatly exaggerated by the media' and 'I trust my feelings about dealing with Corona more than so-called experts'. Thus; an individual receives the value (1 = COVID-19 sceptic); when (s)he responded 'fully agree' or 'mostly agree' on all three items.

	Dependent variable: dummy COVID-19 scepticism (3 items)	
Regressors	Model (1)	Model (2)
Far-right attitudes	4.351***	4.194***
	[2.667; 7.264]	[2.563; 7.021]
Ideological extremism	1.115	
	[0.950; 1.305]	
Very far-right (dummy)		3.189
		[0.351; 20.075]
Very far-left (dummy)		4.180
		[0.414; 64.577]
AfD	0.671	0.717
	[0.233; 1.904]	[0.247; 2.033]
CDU	1.209	1.208
	[0.554; 2.582]	[0.555; 2.576]
FDP	2.992	2.736
	[0.624; 14.196]	[0.543; 13.439]
Greens	0.103	0.114
	[0.326; 1.749]	[0.326; 1.935]
Left	0.741	0.820
	[0.326; 1.620]	[0.367; 1.755]
SPD	1.604	1.707
	[0.463; 4.775]	[0.491; 5.112]
Other	0.034**	0.037**
	[0.003; 0.211]	[0.003; 0.229]
Age	1.001	1.001
	[0.984; 1.018]	[0.984; 1.019]
Gender (female)	1.429	1.437
	[0.859; 2.393]	[0.864; 2.405]
Education (A-levels or higher)	1.028	1.052
	[0.550; 1.898]	[0.561; 1.947]
Political interest	0.791	0.781
	[0.597; 1.041]	[0.588; 1.029]
Affectedness by COVID-19 (no)	1.085	1.115
	[0.476; 2.606]	[0.487; 2.691]
Affectedness by COVID-19 (no, but risk group)	0.600	0.651
	[0.207; 1.753]	[0.225; 1.910]
Risk perception (health) (high risk)	0.424*	0.423*
	[0.215; 0.804]	[0.214; 0.803]
Risk perception (pers. econ. situation) (high risk)	0.888	0.912
	[0.445; 1.733]	[0.458; 1.780]
Conspiracy belief	1.546	1.636
	[0.905; 2.624]	[0.955; 2.787]
Trust federal government (low)	2.457*	2.335*
	[1.176; 5.169]	[1.115; 4.921]
Trust federal government (medium)	1.582	1.556
	[0.812; 3.108]	[0.799; 3.052]
Trust Robert Koch Institute (low)	12.576***	12.832***
	[5.201; 31.842]	[5.288; 32.614]
Trust Robert Koch Institute (medium)	3.519***	3.586***
	[1.945; 6.422]	[1.979; 6.558]
Intercept	0.009***	0.010***
	[0.001; 0.046]	[0.002; 0.051]
Observations	697	697
Log Likelihood	-188.689	-188.662
AIC	423.377	425.323
Nagelkerke Pseudo-R2	0.460	0.460

Table S.3 Logistic regression full model with left-right self-placement (model 1) or extremism (dummies) (model 2) as operationalisation of political ideology; OR with 95% confidence interval

	Dependent variable: dummy COVID-19 scepticism ('the virus is actually not worse than the flu')	
Regressors	Model (1)	Model (2)
Left-right self-placement	0.870	
	[0.709; 1.063]	
Very far-right (dummy)		6.935***
		[2.385; 19.565]
Very far-left (dummy)		12.968*
		[1.456; 181.832]
Age	1.008	1.010
	[0.997; 1.019]	[0.999; 1.021]
Gender (female)	0.770	0.786
	[0.528; 1.118]	[0.539; 1.144]
Education (A-levels or higher)	0.789	0.872
	[0.502; 1.231]	[0.551; 1.369]
Political interest	0.601***	0.548***
	[0.495; 0.725]	[0.447; 0.667]
Affectedness by COVID-19 (no)	1.549	1.545
	[0.847; 2.920]	[0.844; 2.914]
Affectedness by COVID-19 (no, but risk group)	0.822	0.852
	[0.374; 1.816]	[0.385; 1.894]
Risk perception (health) (high risk)	0.606*	0.535**
	[0.381; 0.949]	[0.332; 0.848]
Risk perception (pers. econ. situation) (high risk)	0.956	1.028
	[0.577; 1.569]	[0.616; 1.697]
Conspiracy belief	2.141***	2.264***
	[1.426; 3.216]	[1.501; 3.420]
Trust federal government (low)	3.146***	2.672***
	[1.861; 5.326]	[1.588; 4.497]
Trust federal government (medium)	1.925**	1.937**
	[1.233; 3.008]	[1.235; 3.044]
Trust Robert Koch Institute (low)	10.802***	10.622***
	[5.089; 24.733]	[4.967; 24.454]
Trust Robert Koch Institute (medium)	3.067***	2.933***
	[1.943; 4.867]	[1.859; 4.645]
Intercept	0.779	0.532
	[0.218; 2.781]	[0.189; 1.467]
Observations	808	808
Log Likelihood	-326.395	-319.589
AIC	682.790	671.177
Nagelkerke Pseudo-R2	0.327	0.347

Table S.4 Logistic regression full model (5-item scales instead of dummies); OR with 95% confidence interval

5-item scales instead of dummies were used for the variables risk perception (health); risk perception (personal economic situation); trust in the federal government and trust in the Robert Koch Institute.

	Dependent variable: dummy COVID-19 scepticism ('the virus is actually not worse than the flu')
Regressors	Model (1)
Far-right attitudes	2.779***
	[1.808; 4.325]
Ideological extremism	1.169*
	[1.034; 1.320]
AfD	0.457
	[0.167; 1.267]
CDU	1.906*
	[1.001; 3.633]
FDP	1.382
	[0.302; 6.354]
Greens	0.611
	[0.112; 2.130]
Left	0.557
	[0.278; 1.083]
SPD	1.252
	[0.419; 3.340]
Other	2.378
	[0.868; 6.490]
Age	1.004
	[0.991; 1.018]
Gender (female)	0.983
	[0.632; 1.525]
Education (A-levels or higher)	1.286
	[0.774; 2.137]
Political interest	0.654***
	[0.518; 0.819]
Affectedness by COVID-19 (no)	1.309
	[0.662; 2.683]
Affectedness by COVID-19 (no, but risk group)	0.620
	[0.247; 1.551]
Risk perception (health)	0.737**
	[0.598; 0.905]
Risk perception (pers. econ. situation)	0.903
	[0.741; 1.099]
Conspiracy belief	1.558
	[0.978; 2.476]
Trust federal government	1.499***
	[1.182; 1.910]
Trust Robert Koch Institute	2.334***
	[1.818; 3.035]
Intercept	0.012***
	[0.003; 0.053]
Observations	719
Log Likelihood	-252.860
AIC	547.719
Nagelkerke Pseudo-R2	0.434

Table S.5 Logistic regression full model (alternative operationalisation of economic threat); OR with 95% confidence interval

Economic risk perception was operationalised with the alternative item: 'My personal economic situation has significantly worsened as a result if the Corona crisis' (answers on a four-point scale ranging from 'fully agree' to 'fully disagree'; recoded as a dummy variable with 1 = 'fully agree'/'mostly agree' and 0 = 'mostly disagree'/'fully disagree').

	Dependent variable: dummy COVID-19 scepticism ('the virus is actually not worse than the flu')
Regressors	Model (1)
Far-right attitudes	2.847***
	[1.871; 4.389]
Ideological extremism	1.150*
	[1.020; 1.296]
AfD	0.604
	[0.218; 1.685]
CDU	1.690
	[0.894; 3.182]
FDP	1.549
	[0.348; 6.669]
Greens	0.446
	[0.083; 1.519]
Left	0.599
	[0.305; 1.143]
SPD	0.954
	[0.330; 2.438]
Other	2.685
	[0.997; 7.213]
Age	1.004
	[0.991; 1.017]
Gender (female)	0.907
	[0.589; 1.394]
Education (A-levels or higher)	1.224
	[0.739; 2.022]
Political interest	0.675***
	[0.540; 0.840]
Affectedness by COVID-19 (no)	1.613
	[0.795; 3.447]
Affectedness by COVID-19 (no, but risk group)	0.810
	[0.320; 2.076]
Risk perception (health) (high risk)	0.492**
	[0.292; 0.812]
Affectedness of pers. econ. situation (yes)	0.938
	[0.520; 1.669]
Conspiracy belief	1.384
	[0.864; 2.206]
Trust federal government (low)	2.296**
	[1.243; 4.241]
Trust federal government (medium)	1.396
	[0.818; 2.374]
Trust Robert Koch Institute (low)	13.421***
	[5.820; 33.262]
Trust Robert Koch Institute (medium)	3.125***
	[1.864; 5.276]
Intercept	0.055***
	[0.014; 0.205]
Observations	721
Log Likelihood	-262.211
AIC	570.421
Nagelkerke Pseudo-R2	0.405

Table S.6 Logistic regression full model with far-right attitudes measured with two scales (Neo-Nazi ideology and ethnocentrism)

	Dependent variable: dummy COVID-19 scepticism ('the virus is actually not worse than the flu')
Regressors	Model (1)
Neo-Nazi ideology	1.700*
	[1.013; 2.869]
Ethnocentrism	1.612**
	[1.134; 2.298]
Ideological extremism (squared)	1.159*
	[1.027; 1.306]
AfD	0.636
	[0.233; 1.753]
CDU	1.633
	[0.858; 3.091]
FDP	1.450
	[0.329; 6.223]
Greens	0.464
	[0.086; 1.601]
Left	0.513
	[0.252; 1.010]
SPD	0.949
	[0.327; 2.437]
Other	2.690
	[0.990; 7.313]
Age	1.003
	[0.990; 1.017]
Gender (female)	0.956
	[0.620; 1.472]
Education (A-levels or higher)	1.206
	[0.731; 1.987]
Political interest	0.659***
	[0.522; 0.825]
Affectedness by COVID-19 (no)	1.303
	[0.665; 2.650]
Affectedness by COVID-19 (no, but risk group)	0.654
	[0.266; 1.612]
Risk perception (health) (high risk)	0.471**
	[0.277; 0.783]
Risk perception (pers. econ. situation) (high risk)	0.936
	[0.528; 1.639]
Conspiracy belief	1.523
	[0.940; 2.458]
Trust federal government (low)	2.522**
	[1.358; 4.689]
Trust federal government (medium)	1.563
	[0.917; 2.660]
Trust Robert Koch Institute (low)	10.257***
	[4.401; 25.522]
Trust Robert Koch Institute (medium)	3.223***
	[1.924; 5.441]
Intercept	0.073***
	[0.018; 0.286]
Observations	719
Log Likelihood	-261.407
AIC	570.815
Nagelkerke Pseudo-R2	0.407

Table S.7 Coding of the variables in the study

Variable	Operationalisation/survey items (English translation)
Corona scepticism (DV)	'The virus is actually not worse than the flu' (four-point scale: fully agree, mostly agree, mostly disagree, fully disagree) *COVID-19 scepticism index consisting of the item mentioned above and two additional items:* 'The danger posed by the coronavirus is greatly exaggerated by the media' 'I trust my feelings about dealing with Corona more than so-called experts'
Left-right self-placement	'In politics one often talks about 'left' and 'right'. Where would you place yourself: very far-left, fairly far-left, rather left, rather right, fairly far-right, very far-right?'; participants could also spontaneously indicated that they would place themselves in the middle.
Ideological Extremism	Operationalized as the (squared) distance from the centre of the left-right self-placement scale as well as by using dummies for the extreme positions ("very far-left; "very far-right") of the left-right scale.
Party identification	'Generally speaking, do you tend towards a particular party? If yes, towards which one?'
Far-right attitudes	Mean scale, comprised of the following items (that were each rated on a four-point scale ranging from 'fully agree' to 'fully disagree'): Ethnocentrism: Foreigners only come to Germany to abuse the welfare state. Germany is dominated by foreigners to a dangerous degree. Other countries don't match Germany's achievements. What we need in our country is to forcefully and aggressively assert German interests toward foreign countries. Neo-Nazi ideology: National Socialism had its positive aspects. For the national interest, a dictatorship is under certain conditions the best form of government. The Jews are just peculiar and don't really fit in with us. There is worthy and unworthy life. As in nature, in society the fittest should win. Foreigners ought to marry only among themselves.
Conspiracy belief	There are secret organizations that have a great influence on political decisions during the Corona crisis (four-point scale: fully agree, mostly agree, mostly disagree, fully disagree)
Trust in the government	'I now read to you a number of public facilities. Please tell me for each one whether you trust it fully, largely trust it, partially trust it, rather not trust it, or not trust it at all. How is that with the federal government'
Trust in public health authority (RKI)	'I now read to you a number of public facilities. Please tell me for each one whether you trust it fully, largely trust it, partially trust it, rather not trust it, or not trust it at all. How is that with the Robert Koch Institute'
Risk perception (health)	'How high do you rate the risk of the Corona crisis for your own health?' (five-point scale: no risk, very small risk, small risk, high risk, very high risk)
Risk perception (personal economic situation)	'How high do you rate the risk of the Corona crisis for your personal economic situation?' (five-point scale: no risk, very small risk, small risk, high risk, very high risk)

Table S.8 Sample information; descriptive statistics of socio-demographic control variables

	absolute	per cent
total sample size	1,110	
gender		
male	546	49
female	564	51
age		
18-24 years	69	6
25-34 years	119	11
35-44 years	169	15
45-59 years	252	23
60 years and above	500	45
education		
without school leaving certificate or lowest formal qualification (8-9 years of schooling)	313	28
intermediary secondary qualification (10 years of schooling),	532	48
qualification to study at a university	113	10
university degree	150	14
affectedness by COVID-19		
yes	131	12
no	761	69
no, but belong to a high-risk group	216	19
political interest		
very strong	126	11
strong	285	26
medium	424	38
little	200	18
very little	76	7