

Supplementary Online Materials

SOM: Study 1a

Survey Data is drawn from the Gallup World Poll. We focus on 8 attitudinal questions in the survey. Each question has a binary response, corresponding either to yes/no or agree/disagree. The question wordings are as follows:

- “Do you think that this country should stay in the EU or withdraw from the EU?” (2014; limited number of countries surveyed)
- “Now, I would like to ask you some questions about foreign immigrants - people who have come to live and work in this country from another country. Please tell me whether you, personally, think each of the following is good thing or a bad thing?¹
 - Immigrants living in [country].
 - Having an immigrant as a neighbor.” (2016)
- “Please tell me whether you agree or disagree with the following statements: Leaders in the city or area where you live represent your interests.” (2010 only)
- “Is corruption widespread throughout the government in this country, or not?” (2005-2018)
- “Do you think the government of your country is doing enough to fight corruption, or not?” (2008-2011; 2015)
- “In this country, do you have confidence in each of the following, or not? How about quality and integrity of the media?” (2006-2011)

Control Variables included in all models are: age, age², dummies for medium and high education (versus low), dummies for marital status, the natural logarithm of household income, and the number of children in the household.

Analysis is carried out using logistic regression models, since each of our outcomes is binary. We report exponentiated coefficients (a.k.a. odd ratios) in the main tables. All models include country fixed effects and, where there are multiple years of data, wave fixed effects. Standard errors are clustered on countries. **Sample** is in total 1,851,354 individuals.

¹ A volunteered response of “depends” was also allowed. We code the variables as equal to 1 if “bad”, 0 if “good” or “depends”.

Table S1
Negative Emotions and Populist Attitudes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Leaders Represent My Interests (No = 1)	Government Corruption Widespread (Yes = 1)	Gov Not Doing Enough on Corruption (Yes = 1)	Confident in the Media (No = 1)	Businesspeople Are Good Role Models (No = 1)	Immigrants Living in Country (Bad = 1)	Immigrant As Neighbor (Bad = 1)	Leave The EU (Yes = 1)
Panel A								
Worry Yesterday = 1	1.40*** (0.03)	1.32*** (0.02)	1.26*** (0.03)	1.23*** (0.02)	1.20*** (0.02)	1.15*** (0.02)	1.11*** (0.03)	1.31*** (0.09)
Log-Likelihood	-60,755.6	-594,096.5	-187,623.0	-118,800.7	-253,467.9	-69,042.6	-64,996.4	-7,600.4
Panel B								
Anger Yesterday = 1	1.46*** (0.04)	1.29*** (0.03)	1.22*** (0.03)	1.31*** (0.03)	1.27*** (0.03)	1.22*** (0.03)	1.21*** (0.03)	1.74*** (0.10)
Log-Likelihood	-60,793.6	-589,918.5	-181,606.8	-111,532.3	-253,395.4	-69,019.1	-64,957.8	-7,567.2
Panel C								
Sadness Yesterday = 1	1.45*** (0.04)	1.26*** (0.02)	1.24*** (0.03)	1.22*** (0.02)	1.30*** (0.02)	1.23*** (0.03)	1.21*** (0.03)	1.50*** (0.10)
Log-Likelihood	-60,780.1	-594,871.5	-187,750.7	-118,861.2	-253,296.6	-69,004.2	-64,952.5	-7,587.6
Individuals	93,441	1,282,853	317,867	187,067	503,920	133,763	133,261	16,226
Mean Dep Var	0.49	0.76	0.61	0.45	0.23	0.28	0.25	0.20
Countries	93	156	129	116	151	136	136	17

*Notes: Each panel reports results from a separate series of regression models. Dependent variables are shown in the column titles. Odds Ratios are reported from logistic regression models in each case. Robust standard errors are in parentheses, adjusted for clustering on countries. Source: Gallup World Poll. Country fixed effects are included in all models, as well as controls for gender, age, age², education dummies, (log) household income, marital status dummies, number of children in household. Year fixed effects also included in models where multiple waves of survey data are available. *p < 0.10, **p < 0.05, ***p < 0.01.*

Table S2
Negative Emotions and Populist Attitudes in Gallup World Poll

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Leaders Represent My Interests (No = 1)	Government Corruption Widespread (Yes = 1)	Gov Not Doing Enough on Corruption (Yes = 1)	Confident in the Media (No = 1)	Businesspeople Are Good Role Models (No = 1)	Immigrants Living in Country (Bad = 1)	Immigrant As Neighbor (Bad = 1)	Leave The EU (Yes = 1)
Sadness Yesterday = 1	1.23*** (0.03)	1.08*** (0.01)	1.09*** (0.02)	1.06*** (0.02)	1.19*** (0.02)	1.15*** (0.03)	1.15*** (0.03)	1.26*** (0.08)
Anger Yesterday = 1	1.29*** (0.04)	1.17*** (0.02)	1.13*** (0.02)	1.23*** (0.03)	1.17*** (0.02)	1.14*** (0.03)	1.15*** (0.03)	1.56*** (0.07)
Worry Yesterday = 1	1.23*** (0.03)	1.24*** (0.02)	1.17*** (0.02)	1.15*** (0.02)	1.09*** (0.02)	1.06*** (0.02)	1.02 (0.02)	1.13* (0.08)
Observations	93441	1274226	307163	175571	503920	133763	133261	16226
Mean Dep Var	0.49	0.76	0.61	0.45	0.23	0.28	0.25	0.20
Countries	93	154	129	103	151	136	136	17
Log-Likelihood	-60,586.9	-588,776.4	-181,361.3	-111,429.7	-253,071.7	-68,965.1	-64,921.7	-7,550.3

Notes: Odds ratios reported from logistic regression models. Robust standard errors in parentheses, clustered on countries. Country fixed effects included in all models. All models include controls for gender, age, age², education, (log) income, marital status, children in household, and year where there are multiple waves of survey data.

*p < 0.10, **p < 0.05, ***p < 0.01.

Figure S1

Negative Emotions and Opinions across Europe in 2014 on Withdrawing from the EU

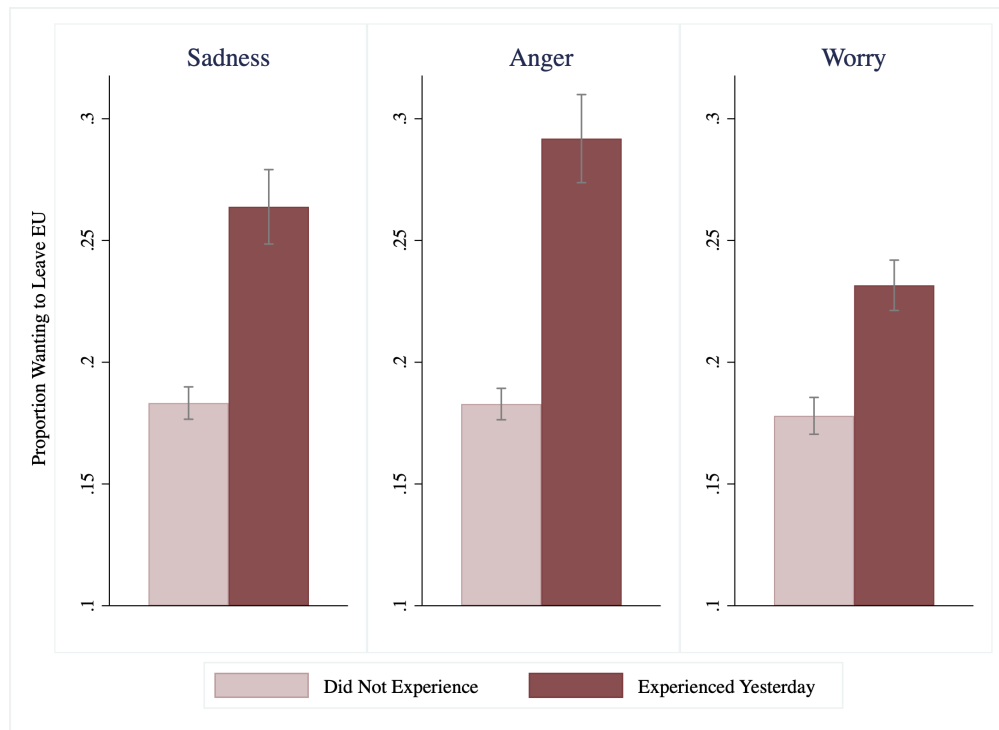
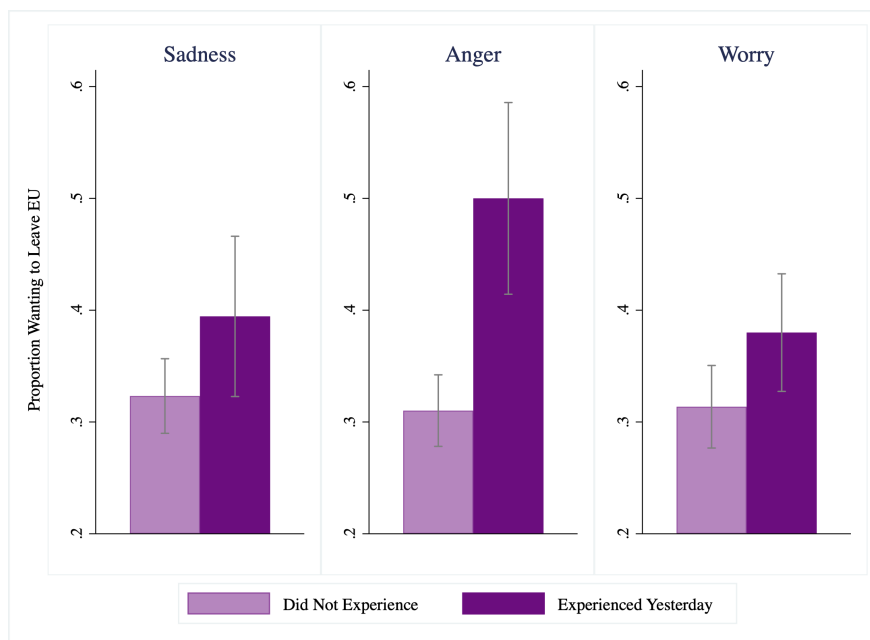


Figure S2

Negative Emotions in the UK and Opinions on Withdrawing from the EU.



Note: Data reported from the 2014 from the Gallup World Poll. 95% confidence intervals shown.

SOM: Study 1b

Data Description

Global Happiness and Political Attitudes Survey. The GHPAS surveys a random sample of respondents in 15 countries, across 6 continents. These 15 countries represent around 52% of the world's population. The countries included are: Australia, Brazil, Finland, France, Germany, Hungary, India, Italy, South Africa, Turkey, UK, USA, Ukraine. Surveys were carried out in May & June 2019. The survey was carried out on behalf of the Victor Pinchuk Foundation, to whom we are grateful for data access.

In each country a sample of around 1,000 was collected, with the exception of Australia (500 respondents). Samples are representative of national populations for all countries, except for India and South Africa. For these two countries, the survey is representative of the population with internet access. Interviews in Hungary were a mixture of face-to-face and online. Russia and Ukraine were telephone and online. Remaining countries were online only.

Populism Measures. Populism is measured using the following questions, to which respondents are asked about the extent they agree/disagree on a 1 to 5 scale. The starred questions are reverse-coded.

People Centristism:

- Politicians should always listen closely to the problems of the people.
- Politicians don't have to spend time among ordinary people to do a good job.*
- The will of the people should be the highest principle in this country's politics.

Anti-elitism:

- The government is pretty much run by a few big interests looking out for themselves.
- Government officials use their power to try to improve people's lives.*
- Quite a few of the people running the government are crooked.

Manichaeian outlook:

- You can tell if a person is good or bad if you know their politics.
- The people I disagree with politically are not evil.*
- The people I disagree with politically are just misinformed.

Emotions. Negative Emotions were measured using the following set of questions:

The following questions ask about how you felt yesterday on a scale from 0 to 10. Zero means you did not experience the feeling "at all" yesterday while 10 means you experienced the feeling "all the time" yesterday. I will now read you a list of ways you might have felt yesterday.

- *Sad*
- *Worried*
- *Angry*
- *Anxious*
- *Stressed*

Extra Results

Table S3
Negative Emotions and Populist Beliefs in Global Survey

	Populism Index Total (z-score)				
	(1)	(2)	(3)	(4)	(5)
Sadness	0.038** (0.015)				
Worry		0.070*** (0.016)			
Anger			0.028 (0.019)		
Anxiety				0.057*** (0.017)	
Stress					0.060*** (0.016)
Observations	12659	12659	12659	12659	12659
R ²	0.114	0.117	0.113	0.116	0.116
Countries	13	13	13	13	13

*Notes: Robust standard errors in parentheses, clustered on countries. Country fixed effects are included in all models. Outcome variable is the populism index developed by Silva et al. (2018), which is z-scored to have a mean of 0 and SD of 1. Controls included for gender, age bands, marital status dummies, number of children, education (BA or more dummy), employment status dummies, and household income quintiles. *p < 0.10, **p < 0.05, ***p < 0.01.*

Table S4
Negative Emotions and People-Centrism

	People-Centrism (z-score)				
	(1)	(2)	(3)	(4)	(5)
Sadness	-0.094*** (0.014)				
Worry		-0.042*** (0.010)			
Anger			-0.114*** (0.012)		
Anxiety				-0.072*** (0.019)	
Stress					-0.049*** (0.011)
Observations	12659	12659	12659	12659	12659
R ²	0.116	0.110	0.120	0.113	0.110
Countries	13	13	13	13	13

*Notes: Robust standard errors in parentheses, clustered on countries. Country fixed effects are included in all models. Outcome variable is the populism sub-index noted above, developed by Silva et al. (2018), which is z-scored to have a mean of 0 and SD of 1. Controls included for gender, age bands, marital status dummies, number of children, education (BA or more dummy), employment status dummies, and household income quintiles. *p < 0.10, **p < 0.05, ***p < 0.01.*

Table S5
Negative Emotions and Anti-Elitism

	Anti-Elitism (z-score)				
	(1)	(2)	(3)	(4)	(5)
Sadness	0.028 (0.019)				
Worry		0.062*** (0.020)			
Anger			0.021 (0.022)		
Anxiety				0.048** (0.019)	
Stress					0.050** (0.017)
Observations	12659	12659	12659	12659	12659
R^2	0.120	0.123	0.120	0.121	0.122
Countries	13	13	13	13	13

*Notes: Robust standard errors in parentheses, clustered on countries. Country fixed effects are included in all models. Outcome variable is the populism sub-index noted above, developed by Silva et al. (2018), which is z-scored to have a mean of 0 and SD of 1. Controls included for gender, age bands, marital status dummies, number of children, education (BA or more dummy), employment status dummies, and household income quintiles. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Table S6
Negative Emotions and Manichean Outlook

	Manichean Outlook (z-score)				
	(1)	(2)	(3)	(4)	(5)
Sadness	0.143*** (0.014)				
Worry		0.116*** (0.015)			
Anger			0.152*** (0.017)		
Anxiety				0.134*** (0.016)	
Stress					0.116*** (0.013)
Observations	12659	12659	12659	12659	12659
R^2	0.095	0.088	0.097	0.092	0.088
Countries	13	13	13	13	13

*Notes: Robust standard errors in parentheses, clustered on countries. Country fixed effects are included in all models. Outcome variable is the populism sub-index noted above, developed by Silva et al. (2018), which is z-scored to have a mean of 0 and SD of 1. Controls included for gender, age bands, marital status dummies, number of children, education (BA or more dummy), employment status dummies, and household income quintiles. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Figure S3
Negative Emotions and Aspects of Populism



Source: Global Happiness and Political Attitudes Survey. Each coefficient is from a separate regression where the populist aspect is regressed on the experience of a particular emotion, along with a series of controls and fixed effects. Full details can be seen in Tables S4–S6.

SOM: Study 2

Election Data is drawn from the ParlGov Database (Döring and Manow, 2018). We include national parliamentary elections only, and code parties as either populist or non-populist, according to the classification system of *The Populist* (Rooduijn et al., 2019). The parties were classified through a large-scale survey of multiple experts in each country on the basis of which parties display the characteristics of populism as defined by the ideational approach, i.e. the extent to which parties endorse ideas i) that society is divided into two antagonistic groups, the (pure) “people” versus the (corrupt) “elite,” and ii) that politics ought to be a pure expression of the “will of the people” (*volonté générale*).² Populist vote share is the collective vote share received by all of the populist parties at each election.

Negative Affect data is drawn from the Gallup World Poll, which is a multi-wave cross-national survey that began in 2005. Representative random samples of around 1,000 respondents are drawn in each country for each wave. We match each election with the closest wave prior to the election, if there has been a survey in that country in the 12 months prior to that election. Different emotions have been asked about in different waves; we focus on the three negative emotions that have been surveyed consistently throughout the period in the Gallup World Poll. The question asks “*Did you experience the following feelings during a lot of the day yesterday? How about anger? How about worry? How about sadness?*” Answers are yes/no. We code the national % who experienced each emotion. For our summary index, we z-score each emotion at the national level, and then take the mean of the three.

Macroeconomic Data is drawn from the World Bank Development Indicators (WDI), and supplemented where missing using data from the IMF’s World Economic Outlook (WEO) database. For elections that take place in the first six months of the year, we take the annual value from the previous year, and for elections in the second six months of the year we take the election-year’s value. GDP is per capita in 2011 PPP international dollars. Unemployment and inflation rates are percentages.

Analysis is carried out using OLS regressions that adjust for country and year fixed effects. Standard errors are adjusted for clustering on countries. Two-sided tests are reported throughout the paper. **Countries Included** are: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Slovakia, Spain, Sweden, United Kingdom. European countries that are part of the Gallup World Poll, but either i) have no populist party (e.g. Portugal) or ii) where we only have one matchable election within 12 months of the survey, are not included in the analysis.

Table S7

Descriptive Statistics: European Elections

Variable	Obs	Mean	Std. Dev.	Min	Max
Populist Vote Share	77	19.98	15.94	0	64.72
Worry Yesterday	77	.35	.09	.22	.58
Sadness Yesterday	77	.19	.05	.1	.36
Anger Yesterday	77	.17	.06	.06	.35
log GDP per Capita	77	10.42	.38	9.67	11.48
Unemployment Rate	77	9.26	5.13	2.74	26.49
Inflation Rate	77	1.86	2.29	-2.1	12.69

² See <https://popu-list.org/> for more details.

Table S8*Correlation Matrix: European Elections*

	1	2	3	4	5	6	7
1 Populist Vote Share	1.00						
2 Worry Yesterday	0.15	1.00					
3 Sadness Yesterday	0.25	0.68	1.00				
4 Anger Yesterday	0.19	0.28	0.44	1.00			
5 GDP per Capita (ln)	-0.40	-0.37	-0.43	-0.26	1.00		
6 Unemployment Rate	0.25	0.62	0.49	0.42	-0.48	1.00	
7 Inflation Rate	-0.07	-0.27	-0.08	-0.01	-0.01	-0.34	1.00

Table S9*Negative Emotions and Populist Vote Shares in Europe*

	Populist Vote Share						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Worry (z-score)		5.05** (2.34)	2.10 (2.65)				
Sadness (z-score)				7.30*** (2.38)	6.28** (2.74)		
Anger (z-score)						3.78* (1.91)	2.46 (1.52)
GDP per capita (log)	-40.48 (28.17)		-39.52 (27.81)		-31.54 (27.53)		-41.64 (28.38)
Unemployment Rate (%)	0.03 (0.68)		-0.17 (0.75)		-0.44 (0.60)		-0.23 (0.69)
Inflation Rate (%)	1.30 (0.91)		1.11 (1.00)		0.83 (0.77)		1.24 (0.86)
Observations	77	77	77	77	77	77	77
Countries	24	24	24	24	24	24	24
Country & Year FEs	✓	✓	✓	✓	✓	✓	✓
Within R ²	0.145	0.074	0.152	0.210	0.253	0.054	0.162
Overall R ²	0.852	0.840	0.853	0.863	0.871	0.836	0.855

Notes: Robust standard errors in parentheses, clustered on countries. Sample of 77 general elections in 24 European countries 2005 and 2018. Country and year fixed effects included in all models. Outcome variable is the collective vote share received by populist parties at the election, lying between 0 and 100.

p < 0.10, **p < 0.05, *p < 0.01.*

SOM: Study 3

Preregistration details for Study 3 can be found and reviewed at <https://aspredicted.org/blind.php?x=di7k5u>.

Negative Emotions Data is drawn from Twitter in the same manner as in the USA (see SOM Study 4, below, for a more detailed discussion). We identify the *local authority district* (LAD) of each tweet, and include tweets in English posted in 2015, limiting the analysis to include users with at least 30 tweets during that year. In total, 372 LADs in Great Britain had at least 100 eligible users.³ This amounts to data drawn from 62,971,196 tweets from 177,014 users.⁴ We applied the same language-based assessment as in Study 4 with counties, in order to estimate LAD-level depression, anger, and anxiety.

Electoral Data from the EU Referendum in the UK on the 23rd June 2016 is at the LAD-level, the geographical unit at which the votes were counted. We code the percentage of voters in each LAD voting to leave the European Union (as opposed to remain).

Covariates. Demographic data on age, migrant stock, population density and housing are taken from the 2011 U.K Census. Median Pay (and inequality, which is the inter-quartile range) is taken from the 2015 Annual Survey of Hours and Earnings. Unemployment rate is drawn from the 2015 UK Labour Force Survey. Trait neuroticism is drawn from (Rentfrow et al., 2015). Additional covariates are drawn from (Becker et al., 2017).

Analysis is carried out at the LAD-level using WLS regression models, where each LAD is weighted by the total number of votes cast in the Referendum.

Table S10*Descriptive Statistics: Brexit*

Variable	Obs	Mean	Std. Dev.	Min	Max
Leave Vote Share	380	53.14	10.42	21.38	75.56
Anger	372	0	1	-3.58	2.31
Anxiety	372	0	1	-3.69	3.36
Depression	372	0	1	-4.93	3.53
Unemployment Rate	377	5.26	2.11	1.6	12.1
log Household Income	380	2.59	.15	1.8	3.16
log Population Density	373	1.73	1.49	-2.3	4.93
1975 Leave Vote Share	380	.31	.05	.23	.58
EU Migrant Stock	380	.01	.01	0	.12
UKIP+BP Vote (2019 EU Election)	380	37.66	12.05	7.03	64.11

³ Shetland and Na h-Eileanan an Iar are omitted from the maps, since there is insufficient Twitter data.

⁴ For the analysis of the 2019 EU parliamentary election, we use 49,940,962 tweets posted in 2018 from 162,536 users. Using the same threshold of 100 users, we are able to observe 332 LADs.

Table S11*Correlation Matrix: Brexit Vote (N=363)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1 2016 Leave Vote Share	1.00								
2 Anger (2015)	0.28	1.00							
3 Anxiety (2015)	0.20	0.87	1.00						
4 Depression (2015)	0.20	0.82	0.87	1.00					
5 Unemployment Rate	0.12	0.24	0.16	0.16	1.00				
6 log Household Income	-0.55	-0.26	-0.18	-0.21	-0.22	1.00			
7 log Population Density	-0.16	0.14	0.13	0.07	0.26	0.24	1.00		
8 1975 Leave Vote Share	-0.23	0.22	0.15	0.19	0.30	-0.04	0.08	1.00	
9 EU Migrant Stock	-0.55	-0.21	-0.13	-0.19	-0.10	0.56	0.38	-0.18	1.00
10 UKIP+BP Vote (2019)	0.93	0.18	0.14	0.14	-0.00	-0.42	-0.24	-0.37	-0.45

Table S12*Autocorrelation of Negative Emotions in Great Britain (N=339)*

	(1)	(2)	(3)	(4)	(5)	(6)
1 Depression (2015)	1.00					
2 Anger (2015)	0.80	1.00				
3 Anxiety (2015)	0.86	0.86	1.00			
4 Depression (2018)	0.68	0.70	0.68	1.00		
5 Anger (2018)	0.63	0.77	0.67	0.88	1.00	
6 Anxiety (2018)	0.59	0.72	0.68	0.86	0.88	1.00

Table S13*Full Reporting of Table 4. Negative Emotions and Brexit*

	DV: Leave Vote Share								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anger	2.86*** (0.58)	3.10*** (0.48)	2.33*** (0.39)						
Anxiety				1.89*** (0.59)	1.94*** (0.47)	1.36*** (0.38)			
Depression							1.96*** (0.59)	2.10*** (0.49)	1.22*** (0.39)
Unemployment			0.44 (0.39)			0.50 (0.40)			0.54 (0.40)
Median Pay (ln)			-3.46*** (0.53)			-3.71*** (0.54)			-3.68*** (0.55)
Population Density (ln)			-2.61*** (0.47)			-2.36*** (0.48)			-2.23*** (0.48)
Leave Vote Share (1975)			1.14* (0.65)			1.18* (0.67)			1.12* (0.67)
EU Migrant Share			-4.35*** (0.48)			-4.52*** (0.49)			-4.54*** (0.49)
Observations	372	372	363	372	372	363	372	372	363
R^2	0.06	0.48	0.70	0.03	0.45	0.68	0.03	0.45	0.68
Region FEs		✓	✓		✓	✓		✓	✓

Notes: Local authority-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Referendum. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variable is the Leave vote share, lying between 0 and 100. Emotional variables are drawn from tweets posted in 2015 (see Methods for further details).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S14
2016 Referendum: Robustness to Omission/Inclusion of Scotland

	No Scotland			Scotland Only		
	(1)	(2)	(3)	(4)	(5)	(6)
Anger	2.65*** (0.44)			2.85*** (0.88)		
Anxiety		1.53*** (0.42)			2.89*** (0.80)	
Depression			1.27*** (0.44)			2.50** (0.88)
Unemployment	0.26 (0.41)	0.36 (0.42)	0.39 (0.42)	1.34 (1.22)	1.88 (1.20)	1.75 (1.31)
Median Pay (ln)	-3.09*** (0.56)	-3.43*** (0.58)	-3.46*** (0.59)	-7.88*** (2.11)	-7.52*** (1.99)	-7.40*** (2.16)
Population Density (ln)	-2.35*** (0.51)	-2.09*** (0.53)	-1.94*** (0.53)	-2.33** (1.02)	-2.50** (0.98)	-2.11* (1.06)
Leave Vote Share (1975)	0.81 (0.73)	0.81 (0.76)	0.80 (0.76)	1.08 (1.18)	1.21 (1.12)	0.67 (1.24)
EU Migrant Share	-4.33*** (0.48)	-4.47*** (0.49)	-4.47*** (0.50)	5.38* (2.78)	4.80* (2.59)	4.10 (2.79)
Observations	335	335	335	28	28	28
R^2	0.66	0.64	0.63	0.74	0.76	0.72
Region FEs	✓	✓	✓			

*Notes: Local authority-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Referendum. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variable is the Leave vote share, lying between 0 and 100. Region effects are omitted in columns (4) to (6) since Scotland is one region in the data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Table S15*2016 Referendum: Robustness to Extensive Set of Controls*

	Leave Vote Share					
	(1)	(2)	(3)	(4)	(5)	(6)
Anger	1.85*** (0.40)	0.78** (0.32)				
Anxiety			0.90** (0.39)	0.21 (0.30)		
Depression					1.02** (0.40)	0.27 (0.32)
Unemployment	1.36*** (0.42)	-0.02 (0.35)	1.46*** (0.43)	-0.01 (0.35)	1.47*** (0.43)	-0.01 (0.35)
Median Pay (ln)	-1.72*** (0.54)	2.17*** (0.52)	-1.99*** (0.55)	2.19*** (0.52)	-1.98*** (0.55)	2.19*** (0.52)
Population Density (ln)	1.00 (0.65)	0.07 (0.51)	1.28* (0.66)	0.19 (0.52)	1.32** (0.66)	0.20 (0.52)
Leave Vote Share (1975)	0.92 (0.66)	-0.73 (0.54)	1.14* (0.68)	-0.67 (0.54)	1.14* (0.68)	-0.67 (0.54)
EU Migrant Share	-4.06*** (0.63)	-0.41 (0.56)	-4.23*** (0.65)	-0.35 (0.57)	-4.20*** (0.65)	-0.35 (0.57)
Non-EU Migrant Share	-3.22*** (0.77)	-4.10*** (0.61)	-3.40*** (0.80)	-4.26*** (0.62)	-3.44*** (0.79)	-4.26*** (0.62)
EU Migrant Growth	1.53** (0.68)	0.71 (0.54)	1.64** (0.70)	0.75 (0.54)	1.60** (0.70)	0.74 (0.54)
Non-EU Migrant Growth	0.47 (0.54)	1.23*** (0.43)	0.39 (0.55)	1.24*** (0.43)	0.51 (0.55)	1.26*** (0.43)
Public Employment	-1.22** (0.49)	-0.99** (0.39)	-1.28** (0.50)	-0.99** (0.39)	-1.30** (0.50)	-1.00** (0.39)
EU Funds per Capita	-1.83*** (0.50)	-1.77*** (0.40)	-1.92*** (0.52)	-1.81*** (0.40)	-1.86*** (0.52)	-1.80*** (0.40)
Fraction 60+	2.82*** (0.68)	1.25** (0.55)	2.78*** (0.70)	1.18** (0.55)	2.76*** (0.70)	1.18** (0.55)
Council Housing	-0.61 (0.48)	-1.98*** (0.39)	-0.59 (0.49)	-2.03*** (0.39)	-0.70 (0.49)	-2.05*** (0.39)
Trait Neuroticism	0.76* (0.45)	-0.16 (0.36)	0.79* (0.46)	-0.17 (0.36)	0.75 (0.46)	-0.18 (0.36)
Income Growth	0.01 (0.41)	-0.96*** (0.33)	-0.07 (0.42)	-1.03*** (0.33)	-0.06 (0.42)	-1.03*** (0.33)
Fraction Low Education		9.04*** (0.67)		9.36*** (0.66)		9.34*** (0.66)
Observations	312	312	312	312	312	312
R^2	0.69	0.81	0.67	0.81	0.68	0.81

Notes: Local authority-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Referendum. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variables is the Leave vote share, lying between 0 and 100. Trait neuroticism data is drawn from Rentfrow et al. (2015), based on a large dataset collected as part the “BBC Big Personality Test”. Additional variables used but not described in main methods section are drawn from Becker et al. (2017).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S16*2019 European Parliamentary Elections*

	Brexit Party + UKIP Vote Share								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anger	1.80*** (0.57)	2.34*** (0.50)	0.52** (0.22)						
Anxiety				1.57*** (0.55)	1.96*** (0.47)	0.36* (0.21)			
Depression							1.53*** (0.55)	1.84*** (0.47)	0.65*** (0.20)
Unemployment		-0.41 (0.49)	-0.83*** (0.21)		-0.31 (0.49)	-0.81*** (0.21)		-0.29 (0.49)	-0.81*** (0.21)
Median Pay (ln)		-1.92*** (0.66)	1.83*** (0.30)		-1.92*** (0.67)	1.84*** (0.31)		-1.88*** (0.67)	1.90*** (0.30)
Population Density (ln)		-3.77*** (0.55)	-1.05*** (0.25)		-3.70*** (0.56)	-1.01*** (0.25)		-3.62*** (0.56)	-1.06*** (0.25)
Leave Vote Share (1975)		0.45 (0.78)	-0.40 (0.34)		0.54 (0.78)	-0.38 (0.34)		0.39 (0.79)	-0.44 (0.33)
EU Migrant Share		-3.60*** (0.54)	0.71*** (0.26)		-3.62*** (0.55)	0.73*** (0.26)		-3.66*** (0.55)	0.71*** (0.26)
2016 Referendum Vote			10.74*** (0.29)			10.79*** (0.29)			10.75*** (0.28)
Observations	332	332	332	332	332	332	332	332	332
R^2	0.55	0.70	0.94	0.55	0.70	0.94	0.55	0.69	0.94
Region FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Local authority-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2019 EP election. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variable is the combined vote share of the Brexit Party and UK Independence Party, lying between 0 and 100.

** $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Table S17*2019 European Parliamentary Elections: Omission/Inclusion of Scotland*

	No Scotland			Scotland Only		
	(1)	(2)	(3)	(4)	(5)	(6)
Anger	2.51*** (0.55)			1.31** (0.49)		
Anxiety		2.17*** (0.54)			1.10*** (0.37)	
Depression			2.07*** (0.54)			0.86* (0.46)
Unemployment	-0.49 (0.53)	-0.41 (0.53)	-0.42 (0.53)	0.33 (0.65)	0.50 (0.64)	0.66 (0.74)
Median Pay (ln)	-1.96*** (0.72)	-1.96*** (0.72)	-1.91*** (0.73)	-2.74** (1.15)	-2.59** (1.11)	-2.20* (1.20)
Population Density (ln)	-4.06*** (0.64)	-4.02*** (0.65)	-3.92*** (0.65)	-2.14*** (0.56)	-2.12*** (0.54)	-2.22*** (0.61)
Leave Vote Share (1975)	0.76 (0.91)	0.83 (0.92)	0.74 (0.92)	0.07 (0.58)	0.18 (0.57)	-0.13 (0.62)
EU Migrant Share	-3.59*** (0.58)	-3.59*** (0.58)	-3.64*** (0.59)	2.47 (1.48)	2.43 (1.44)	2.25 (1.59)
Observations	302	302	302	30	30	30
R^2	0.63	0.63	0.62	0.73	0.74	0.69
Region FEs	✓	✓	✓			

Notes: Local authority-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2019 EP election. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variables is the combined vote share of the Brexit Party and UK Independence Party, lying between 0 and 100. Region effects are omitted in columns (4) to (6) since Scotland is one region in the data.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S18*2019 European Parliamentary Elections: Additional Controls*

	Brexit Party + UKIP Vote					
	(1)	(2)	(3)	(4)	(5)	(6)
Anger	0.35** (0.17)	0.36** (0.17)				
Anxiety			0.25 (0.17)	0.26 (0.17)		
Depression					0.42*** (0.16)	0.44*** (0.16)
Unemployment	-0.17 (0.18)	-0.11 (0.19)	-0.15 (0.18)	-0.09 (0.19)	-0.19 (0.18)	-0.12 (0.19)
Median Pay (ln)	0.89*** (0.29)	0.67** (0.33)	0.88*** (0.29)	0.67** (0.34)	0.95*** (0.29)	0.72** (0.33)
Population Density (ln)	0.16 (0.26)	0.20 (0.26)	0.18 (0.26)	0.23 (0.27)	0.17 (0.26)	0.21 (0.26)
Leave Vote Share (1975)	0.18 (0.30)	0.25 (0.31)	0.18 (0.30)	0.24 (0.31)	0.15 (0.30)	0.23 (0.31)
EU Migrant Share	1.49*** (0.25)	1.37*** (0.27)	1.50*** (0.25)	1.38*** (0.27)	1.49*** (0.25)	1.35*** (0.27)
Non-EU Migrant Share	-2.11*** (0.33)	-1.99*** (0.34)	-2.13*** (0.33)	-2.02*** (0.34)	-2.09*** (0.33)	-1.96*** (0.34)
EU Migrant Growth	0.27 (0.27)	0.29 (0.27)	0.29 (0.27)	0.30 (0.27)	0.25 (0.27)	0.27 (0.27)
Non-EU Migrant Growth	-1.61*** (0.20)	-1.67*** (0.21)	-1.62*** (0.20)	-1.68*** (0.21)	-1.57*** (0.20)	-1.64*** (0.21)
Public Employment	0.23 (0.21)	0.24 (0.21)	0.19 (0.21)	0.21 (0.21)	0.21 (0.20)	0.23 (0.20)
EU Funds per Capita	-0.50** (0.22)	-0.47** (0.22)	-0.49** (0.22)	-0.46** (0.22)	-0.49** (0.22)	-0.46** (0.22)
Fraction 60+	1.09*** (0.29)	1.13*** (0.29)	1.06*** (0.29)	1.11*** (0.29)	1.11*** (0.28)	1.16*** (0.29)
Council Housing	0.38* (0.19)	0.49** (0.21)	0.39** (0.20)	0.50** (0.22)	0.39** (0.19)	0.51** (0.21)
Trait Neuroticism	-0.13 (0.18)	-0.11 (0.18)	-0.16 (0.18)	-0.14 (0.18)	-0.14 (0.18)	-0.12 (0.18)
Income Growth	-0.17 (0.16)	-0.10 (0.17)	-0.17 (0.16)	-0.11 (0.17)	-0.17 (0.16)	-0.10 (0.16)
2016 Referendum Vote	9.68*** (0.26)	9.93*** (0.32)	9.71*** (0.26)	9.95*** (0.32)	9.70*** (0.25)	9.96*** (0.32)
Fraction Low Education		-0.58 (0.45)		-0.54 (0.45)		-0.62 (0.45)
Observations	280	280	280	280	280	280
R^2	0.97	0.97	0.97	0.97	0.97	0.97

Notes: Local authority-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2019 EP election. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variable is the combined vote share of the Brexit Party and UK Independence Party, lying between 0 and 100.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S19
Longitudinal Models for UK Leave Voting

	Δ Leave Vote (2019 EuroParl - 2016 Referendum)					
	(1)	(2)	(3)	(4)	(5)	(6)
Δ Anger	0.08*** (0.03)	0.08*** (0.03)				
Δ Anxiety			0.01 (0.02)	0.03 (0.02)		
Δ Depression					0.04* (0.02)	0.06** (0.02)
Observations	330	330	330	330	330	330
R^2	0.38	0.55	0.36	0.54	0.36	0.54
Region FEs		✓		✓		✓

*Notes: Local authority-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2019 EP election. The three emotion independent variables are z-scored such that they have a mean of 0 and an SD of 1 within each year, and the difference is then taken between the two years. Outcome variable is the difference between the z-score of the 2019 leave vote in the European Parliament elections and the z-score of the 2016 Brexit referendum vote. Baseline controls from Table S13 are included in all models. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

SOM: Study 4

Negative Emotions Data was taken from Twitter using the County Tweet Lexical Bank (Giorgi et al., 2018).⁵ The lexical bank contains an aggregation of 1.53 billion US tweets posted between 2009 and 2015, from 6.06 million users. These tweets were mapped to counties using a combination of tweets’ geographic coordinates as well as self-reported location, as described in (Schwartz et al., 2013). After filtering non-English tweets, the data was further limited to include only those from users with at least 30 total tweets over the period, in order to ensure reasonable measurement precision per person (see Kern et al., 2016). Finally, analyses were restricted to counties with at least 100 eligible users, leaving us with 1.53bn tweets covering 2,041 counties across the USA. Alaska is dropped from the analysis, since election results are not reported by county, leaving a final sample of 2,030 counties.

Linguistic data from these Twitter posts were aggregated in a way that mirrors survey data. We first calculated the mean rate of words or topics (clusters of words) per user, and subsequently used those means to calculate an average across all users in a given county (Giorgi et al., 2018). Using these county-level average values for each of the linguistic features, we applied a previously validated, language-based assessment to estimate county-level expressed depression, anger, and anxiety (for more details see Schwartz et al., 2014). While only the emotion of anger is a direct replication of the results from Studies 1 and 2, the emotions of anxiety and depression are closely related to those of stress and sadness. According to the emotion circumplex model (Posner et al., 2005), the emotion of anxiety is akin to stress in that both emotions are unpleasant and activating. Similarly, the emotion of depression is closely related to sadness, with both emotions being associated with unpleasantness and deactivation. Studying stress and depression allowed us to draw on previously published and validated prediction models (for more details see Schwartz et al., 2014). All models were applied using the Differential Language Analysis ToolKit, a social science language analysis library for Python (Schwartz et al., 2017).

For the 2020 replication study, we follow the same logic and use Twitter data from 2019. We begin with a 10% random sample of Twitter, which we then map to counties. We take users with at least 30 county-mapped tweets. We consider only counties with at least 100 users. This gives us a total 1344 counties in 2019.

Election Data is drawn from the Dave Leip Atlas of U.S. Presidential Elections. All data are at the U.S. county-level. The 2016 vote share is the Republican two-party vote share (i.e. omitting any votes for parties that are not Republican or Democrat). The Trump swing is the Δ between the 2016 Republican vote share and the mean Republican vote share at the 2000, 2004, 2008 and 2012 presidential elections. For the 2020 replication, we take the 2020 Trump two-party vote share, as well as the change from 2016 to 2020.

Covariates. Racism index is drawn from estimates calculated using Google search data by (Stephens-Davidowitz, 2014). Data on age and racial profile of each county, as well as population density, is drawn from the American Community Survey (5 year estimates - 2012-2016). Religiosity and inequality (gini coefficient) is taken from (Chetty and Hendren, 2018). Longitude and latitude taken from the Census U.S. Gazetteer Files. Median Household income is the 2015 value from U.S. Census Bureau’s Small Area Income and Poverty Estimate (SAIPE) program. Income growth is the percentage change in median income from 2012 to 2016. Unemployment rate is drawn from the Bureau of Labor Statistics. Trait neuroticism is drawn from (Obschonka et al., 2018). Trade exposure is the change in import penetration from China between 2000-2014 (Autor et al., 2018). Moral values is the relative importance of universalist vs communal moral values as used by (?).

Analysis is carried out at the county-level using WLS regression models, where each county is weighted by its total number of votes cast in the 2016 Presidential Election.

⁵ We make the data available at https://github.com/wwbp/county_tweet_lexical_bank.

Table S20
Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Trump 2016 Vote Share	2030	62.63	15.84	4.3	92.26
Trump Vote Share (2016 - Avg 2000-12)	2030	5.7	7.19	-16.49	32.61
Trump Primaries Vote Share	1916	44.93	15.1	0	89.97
Anxiety	2030	0	1	-3.63	3.5
Anger	2030	0	1	-3.52	2.61
Depression	2030	0	1	-4.15	3.26
Median HH Income	2030	51576.79	13781.86	22045	134609
Unemployment Rate	2030	5.26	1.66	1.93	22.59
Population Density (ln)	2029	4.54	1.33	.36	11.11
Racism Index	1968	63.04	17.11	25.68	154.51
Fraction Religious	2029	.51	.16	.13	1.65

Table S21
Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)
(1) Trump Vote Share 2016	1.00					
(2) Trump Vote (2016 - GOP Avg.)	0.68	1.00				
(3) Trump Vote in Primaries	-0.07	0.09	1.00			
(4) Anger	0.21	0.26	0.04	1.00		
(5) Anxiety	0.32	0.42	0.10	0.84	1.00	
(6) Depression	0.29	0.44	0.13	0.77	0.94	1.00

Table S22
Negative Emotions and the 2016 Election

	Trump Vote Share in 2016								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anxiety	6.80*** (0.36)	3.74*** (0.30)	4.03*** (0.30)						
Anger				3.37*** (0.40)	2.56*** (0.31)	2.59*** (0.33)			
Depression							6.95*** (0.35)	3.34*** (0.30)	4.05*** (0.30)
Household Income (ln)		2.61*** (0.33)	5.53*** (0.41)		2.64*** (0.34)	5.56*** (0.43)		2.58*** (0.34)	5.72*** (0.41)
Unemployment		-2.15*** (0.44)	-1.33** (0.61)		-1.85*** (0.46)	-0.88 (0.64)		-2.11*** (0.45)	-1.23** (0.61)
Population Density (ln)		-10.70*** (0.24)	-9.54*** (0.31)		-11.48*** (0.23)	-10.64*** (0.31)		-10.65*** (0.24)	-9.37*** (0.32)
Racism Index		2.40*** (0.42)	0.19 (0.74)		2.46*** (0.43)	0.22 (0.77)		2.52*** (0.43)	0.25 (0.74)
% Religious		1.81*** (0.37)	0.13 (0.39)		1.96*** (0.38)	0.16 (0.41)		2.05*** (0.38)	0.40 (0.40)
Latitude		0.21 (0.96)	-7.01** (3.45)		-0.29 (0.98)	-7.94** (3.59)		-0.36 (0.97)	-7.83** (3.46)
Longitude		4.41** (1.91)	4.17 (5.73)		3.82* (1.95)	-1.35 (5.98)		4.80** (1.92)	0.74 (5.74)
Observations	2030	1968	1968	2030	1968	1968	2030	1968	1968
R ²	0.39	0.72	0.88	0.31	0.71	0.87	0.40	0.72	0.88
State FEs	✓	✓		✓	✓		✓	✓	
Commuting Zone FEs			✓			✓			✓

Notes: County-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Presidential Election. Emotional variables are z-scored to have a mean of 0 and a standard deviation of 1.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S23
Negative Affect and the 2016 Election

	Trump Vote Share in 2016			Trump Vote Swing			Trump Vote 2016 Primaries		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Negative Affect (z-score)	5.86*** (0.36)	3.29*** (0.30)	3.66*** (0.31)	3.24*** (0.13)	1.75*** (0.12)	1.64*** (0.12)	3.46*** (0.16)	2.16*** (0.17)	1.71*** (0.23)
Household Income (ln)		2.64*** (0.34)	5.67*** (0.42)		-1.12*** (0.13)	-0.93*** (0.17)		-0.32* (0.19)	-0.48 (0.31)
Unemployment		-2.16*** (0.45)	-1.31** (0.62)		-0.24 (0.18)	0.65** (0.25)		1.46*** (0.25)	1.84*** (0.45)
Population Density (ln)		-10.94*** (0.24)	-9.80*** (0.31)		-2.91*** (0.09)	-3.12*** (0.13)		-1.39*** (0.13)	-2.76*** (0.23)
Racism Index		2.45*** (0.43)	0.17 (0.75)		1.09*** (0.17)	0.41 (0.31)		0.51** (0.24)	1.55*** (0.54)
% Religious		1.95*** (0.38)	0.25 (0.40)		0.74*** (0.15)	0.44*** (0.16)		0.20 (0.21)	-0.72** (0.29)
Latitude		-0.08 (0.97)	-7.44** (3.49)		1.18*** (0.38)	-1.20 (1.42)		-1.98*** (0.54)	-11.98*** (2.55)
Longitude		4.22** (1.92)	0.65 (5.80)		0.58 (0.75)	-5.58** (2.36)		7.69*** (1.08)	15.00*** (4.25)
Observations	2030	1968	1968	2030	1968	1968	1916	1855	1855
R^2	0.37	0.72	0.87	0.50	0.72	0.86	0.88	0.91	0.93
State FEs	✓	✓		✓	✓		✓	✓	
Commuting Zone FEs			✓			✓			✓

Notes: County-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Presidential Election. Emotional variables are z-scored to have a mean of 0 and a standard deviation of 1.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S24
Negative Emotions and the Trump Swing

	$\Delta(\text{Trump 2016} - \text{GOP Avg. 2000-12})$								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anxiety	3.36*** (0.13)	1.76*** (0.12)	1.74*** (0.12)						
Anger				2.53*** (0.14)	1.42*** (0.12)	1.16*** (0.13)			
Depression							3.64*** (0.12)	1.97*** (0.12)	1.88*** (0.12)
Household Income (ln)		-1.15*** (0.13)	-1.01*** (0.17)		-1.11*** (0.14)	-0.98*** (0.18)		-1.14*** (0.13)	-0.90*** (0.17)
Unemployment		-0.13 (0.17)	0.67*** (0.25)		-0.10 (0.18)	0.84*** (0.26)		-0.30* (0.17)	0.65*** (0.25)
Population Density (ln)		-2.84*** (0.09)	-3.04*** (0.13)		-3.20*** (0.09)	-3.50*** (0.13)		-2.71*** (0.09)	-2.90*** (0.13)
Racism Index		1.07*** (0.17)	0.43 (0.30)		1.09*** (0.17)	0.43 (0.32)		1.12*** (0.16)	0.44 (0.30)
% Religious		0.68*** (0.15)	0.38** (0.16)		0.75*** (0.15)	0.40** (0.17)		0.80*** (0.15)	0.51*** (0.16)
Latitude		1.25*** (0.38)	-1.04 (1.41)		1.08*** (0.39)	-1.42 (1.47)		1.07*** (0.37)	-1.35 (1.39)
Longitude		0.71 (0.75)	-4.04* (2.34)		0.34 (0.77)	-6.47*** (2.45)		0.88 (0.74)	-5.56** (2.32)
Observations	2030	1968	1968	2030	1968	1968	2030	1968	1968
R ²	0.51	0.72	0.87	0.43	0.70	0.86	0.55	0.72	0.87
State FEs	✓	✓		✓	✓		✓	✓	
Commuting Zone FEs			✓			✓			✓

Notes: County-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Presidential Election. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S25

Negative Emotions and Trump Voting in the 2016 Primaries

	Trump Vote Share in 2016 Republican Primaries								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anxiety	3.41*** (0.16)	2.11*** (0.17)	1.62*** (0.23)						
Anger				3.22*** (0.17)	1.95*** (0.18)	1.58*** (0.24)			
Depression							3.58*** (0.16)	2.27*** (0.17)	1.79*** (0.23)
Household Income (ln)		-0.37* (0.19)	-0.58* (0.31)		-0.29 (0.19)	-0.45 (0.31)		-0.37* (0.19)	-0.49 (0.31)
Unemployment		1.62*** (0.25)	1.95*** (0.45)		1.53*** (0.26)	1.84*** (0.46)		1.46*** (0.25)	1.91*** (0.45)
Population Density (ln)		-1.31*** (0.14)	-2.76*** (0.23)		-1.74*** (0.13)	-3.06*** (0.22)		-1.17*** (0.14)	-2.61*** (0.24)
Racism Index		0.49** (0.24)	1.59*** (0.54)		0.51** (0.24)	1.52*** (0.54)		0.55** (0.24)	1.60*** (0.54)
% Religious		0.12 (0.21)	-0.78*** (0.29)		0.21 (0.21)	-0.73** (0.29)		0.27 (0.21)	-0.65** (0.29)
Latitude		-1.89*** (0.54)	-11.92*** (2.55)		-2.04*** (0.55)	-12.09*** (2.56)		-2.13*** (0.54)	-12.14*** (2.54)
Longitude		7.88*** (1.08)	16.54*** (4.26)		7.27*** (1.09)	13.58*** (4.28)		8.08*** (1.07)	15.01*** (4.24)
Observations	1916	1855	1855	1916	1855	1855	1916	1855	1855
R ²	0.88	0.91	0.93	0.88	0.91	0.93	0.89	0.91	0.93
State FEs	✓	✓		✓	✓		✓	✓	
Commuting Zone FEs			✓			✓			✓

Notes: County-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Presidential Election. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S26
Robustness to Extensive Set of Controls

	Trump 2016 Vote Share			$\Delta(\text{Trump 2016} - \text{GOP Avg})$			Trump in GOP Primaries		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anxiety	0.30 (0.26)			0.44*** (0.11)			0.72*** (0.19)		
Anger		0.99*** (0.27)			0.79*** (0.11)			1.07*** (0.19)	
Depression			-0.19 (0.26)			0.67*** (0.11)			0.83*** (0.19)
Household Income (ln)	2.09*** (0.36)	2.01*** (0.35)	2.19*** (0.36)	-0.08 (0.15)	-0.10 (0.15)	-0.10 (0.15)	0.40 (0.26)	0.40 (0.25)	0.40 (0.25)
Unemployment	-0.50 (0.35)	-0.72** (0.35)	-0.37 (0.35)	0.09 (0.15)	-0.03 (0.15)	-0.01 (0.15)	1.62*** (0.25)	1.48*** (0.25)	1.54*** (0.25)
Population Density (ln)	-2.43*** (0.29)	-2.47*** (0.28)	-2.42*** (0.29)	-0.79*** (0.12)	-0.81*** (0.12)	-0.77*** (0.12)	1.26*** (0.21)	1.24*** (0.21)	1.30*** (0.21)
Racism Index	1.44*** (0.32)	1.38*** (0.32)	1.45*** (0.32)	0.86*** (0.14)	0.82*** (0.13)	0.87*** (0.14)	0.34 (0.23)	0.29 (0.23)	0.36 (0.23)
% Religious	0.17 (0.30)	0.20 (0.30)	0.14 (0.30)	-0.05 (0.13)	-0.04 (0.12)	-0.01 (0.13)	-0.13 (0.21)	-0.12 (0.21)	-0.08 (0.21)
Latitude	1.10 (0.75)	1.26* (0.75)	1.01 (0.75)	1.02*** (0.32)	1.11*** (0.32)	1.02*** (0.32)	-2.15*** (0.54)	-2.06*** (0.53)	-2.18*** (0.53)
Longitude	3.62** (1.45)	3.62** (1.45)	3.48** (1.46)	0.24 (0.62)	0.19 (0.61)	0.35 (0.62)	6.98*** (1.03)	6.88*** (1.03)	7.08*** (1.03)
% 65+	0.84*** (0.23)	0.87*** (0.23)	0.83*** (0.23)	1.48*** (0.10)	1.50*** (0.10)	1.48*** (0.10)	1.62*** (0.16)	1.64*** (0.16)	1.61*** (0.16)
% White	9.19*** (0.32)	9.43*** (0.33)	9.22*** (0.32)	1.20*** (0.14)	1.40*** (0.14)	1.20*** (0.14)	0.83*** (0.23)	1.12*** (0.23)	0.86*** (0.23)
Inequality	-1.77*** (0.22)	-1.70*** (0.22)	-1.82*** (0.22)	-0.44*** (0.09)	-0.40*** (0.09)	-0.40*** (0.09)	-1.60*** (0.16)	-1.55*** (0.15)	-1.55*** (0.16)
Tade Exposure	-0.24 (0.24)	-0.15 (0.24)	-0.29 (0.24)	0.18* (0.10)	0.23** (0.10)	0.20* (0.10)	-0.45** (0.17)	-0.39** (0.17)	-0.45** (0.17)
Income Growth	-0.74*** (0.23)	-0.64*** (0.23)	-0.80*** (0.23)	0.27*** (0.10)	0.32*** (0.10)	0.28*** (0.10)	0.13 (0.16)	0.19 (0.16)	0.12 (0.16)
Trait Neuroticism	-0.08 (0.38)	-0.11 (0.38)	-0.01 (0.38)	1.52*** (0.16)	1.52*** (0.16)	1.47*** (0.16)	0.02 (0.27)	0.04 (0.27)	-0.03 (0.27)
Moral Values (Univ vs. Comm)	-3.53*** (0.29)	-3.38*** (0.29)	-3.59*** (0.29)	-0.40*** (0.12)	-0.31** (0.12)	-0.39*** (0.12)	-0.30 (0.21)	-0.19 (0.21)	-0.31 (0.21)
% Some College +	-5.17*** (0.42)	-4.81*** (0.41)	-5.47*** (0.41)	-2.65*** (0.18)	-2.50*** (0.17)	-2.55*** (0.17)	-3.02*** (0.30)	-2.90*** (0.29)	-3.01*** (0.30)
Observations	1769	1769	1769	1769	1769	1769	1666	1666	1666
R^2	0.86	0.86	0.86	0.84	0.84	0.84	0.93	0.93	0.93

Notes: County-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2016 Presidential Election, and include State FEs. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variables are vote shares, lying between 0 and 100.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table S27

Negative Affect and Trump Voting in 2020: Cross-Sectional Evidence

	Trump Vote Share in 2020								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anger (2019)	3.82 (2.38)	5.69*** (1.63)	1.09*** (0.31)						
Anxiety (2019)				-5.95** (2.54)	2.55 (1.79)	4.89*** (0.31)			
Depression (2019)							2.08 (1.91)	3.21** (1.31)	0.33 (0.25)
Household Income (2019)		1.41*** (0.40)	-0.69*** (0.08)		1.29*** (0.40)	-0.60*** (0.07)		1.38*** (0.40)	-0.72*** (0.08)
Unemployment (2019)		-0.29 (0.47)	0.47*** (0.09)		-0.36 (0.47)	0.35*** (0.08)		-0.24 (0.47)	0.47*** (0.09)
Population Density (ln)		-11.11*** (0.29)	-0.14* (0.08)		-11.12*** (0.29)	-0.20*** (0.07)		-11.08*** (0.29)	-0.12 (0.08)
Racism Index		2.43*** (0.52)	0.01 (0.10)		2.51*** (0.52)	0.07 (0.09)		2.44*** (0.52)	0.02 (0.10)
% Religious		2.06*** (0.45)	0.44*** (0.09)		2.07*** (0.45)	0.32*** (0.08)		2.09*** (0.45)	0.45*** (0.09)
Latitude		-2.02* (1.18)	-1.74*** (0.23)		-1.71 (1.18)	-1.54*** (0.21)		-2.02* (1.19)	-1.72*** (0.23)
Longitude		6.15** (2.54)	-1.04** (0.49)		6.65*** (2.55)	-0.67 (0.45)		6.26** (2.55)	-1.01** (0.49)
Trump Vote Share (2016)			0.92*** (0.01)			0.92*** (0.00)			0.92*** (0.01)
Observations	1343	1303	1303	1343	1303	1303	1343	1303	1303
R ²	0.28	0.68	0.99	0.28	0.68	0.99	0.28	0.68	0.99

*Notes: County-level WLS estimates. Robust standard errors in parentheses. All regression models are weighted by the total number of votes cast in the 2020 Presidential Election, and include State FEs. All independent variables are z-scored to have a mean of 0 and a standard deviation of 1. Outcome variables are vote shares, lying between 0 and 100. *p < 0.10, **p < 0.05, ***p < 0.01.*

Ablation Analysis: Additional Variance Explained by Emotions**Table S28***R² Values from Populism Prediction Models*

Outcome Variable	R ² with Controls Only	R ² with Controls + Emotions	Absolute Difference	% Difference	N
Study 3					
Populist Party Vote Share	0.073	0.161	0.088	120.55%	77
Study 4					
Trump Vote Share	0.577	0.617	0.040	6.93%	1968
Trump Swing	0.519	0.588	0.069	13.29%	1968
Trump Primaries	0.287	0.347	0.060	20.91%	1855
Study 5					
Leave Vote Share	0.424	0.484	0.060	14.15%	363

Notes: Adjusted within-R² values are reported. In study 2, this is the adjusted within-R² from regressions that include country and year fixed effects. In study 4 this is the adjusted within-R² from regressions that include state effects. In Study 3 this is the adjusted within-R² from regressions that include region effects. The initial “controls” included in Study 2 are GDP per capita (ln), unemployment rate, and inflation rate. In Study 4 these are household income (ln), unemployment, population density (ln), racism index, % religious, latitude. and longitude. In study 4 these are median pay (ln), unemployment, population density (ln), leave vote share in 1975, and EU migrant share.