Supplementary Material for

Political Depression? A Big-Data, Multi-Method Exploration of Americans' Emotional Response to the Trump Presidency

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Bayesian Analyses Statement

All Bayesian analyses were conducted using BayesFactor package for R (Morey &

Rouder, 2018), with a JZS prior (Rouder, Morey, Speckman, & Province, 2012) and

10,000 MCMC iterations. In model comparisons BIC to BF was converted following

Rouder et al. (2009).

Pre-Study Psychologists' Evaluation

We were interested in finding out what would the psychological community predict; could a political depression be perceived as a valid phenomenon, or would it seem to be far-fetched? To address this question, we ran a modified version of study 1A on a pool of professional psychologists.

Method

We conducted a modified version of study 1A among 65 professional psychologists recruited through the PsychMAP Facebook group (46 from the United States, 52 at PhD level). The psychologists' areas of expertise were: social – 30, clinical – 9, neuroscience – 6, personality – 5, cognitive – 4, developmental – 3, organizational – 3, health – 2, other - 3. We asked them to predict the PHQ-2 scores of the "average American Liberal" and the "average American Conservative" for 1 year before the election, 2 weeks before the election, 2 weeks after the election and 1 year after the election.

Results

We ran a 4 (time) X 2 (political affiliation) within-subjects ANOVA, $F_{(1.43, 91.38)} = 97.04$, $p < .0001$, $\eta_{G^2}^2 = .29$, $BF_{Inclusion} = $ Inf. These results as depicted in Fig 1. (manuscript), suggest that psychologists do consider a phenomenon such as Political Depression to be plausible and in the case of the 2016 presidential election, even highly probable.

Supplementary Figures
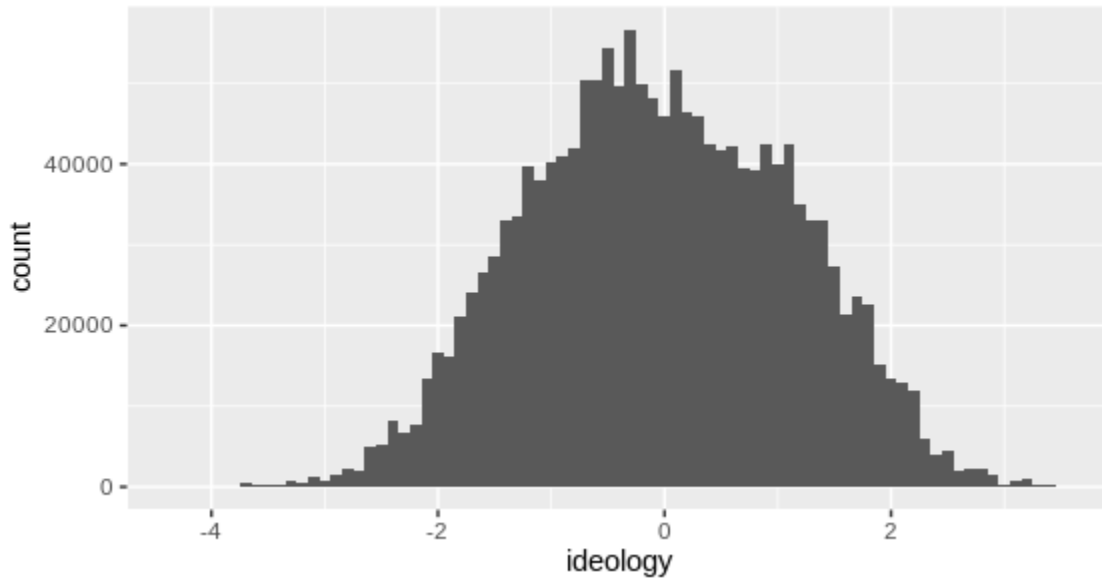
Supplementary Fig. 1. Histogram of individual-level political affiliation. Distribution of 1,610,792 twitter users' political affiliation. Negative values denote liberal political affiliation.
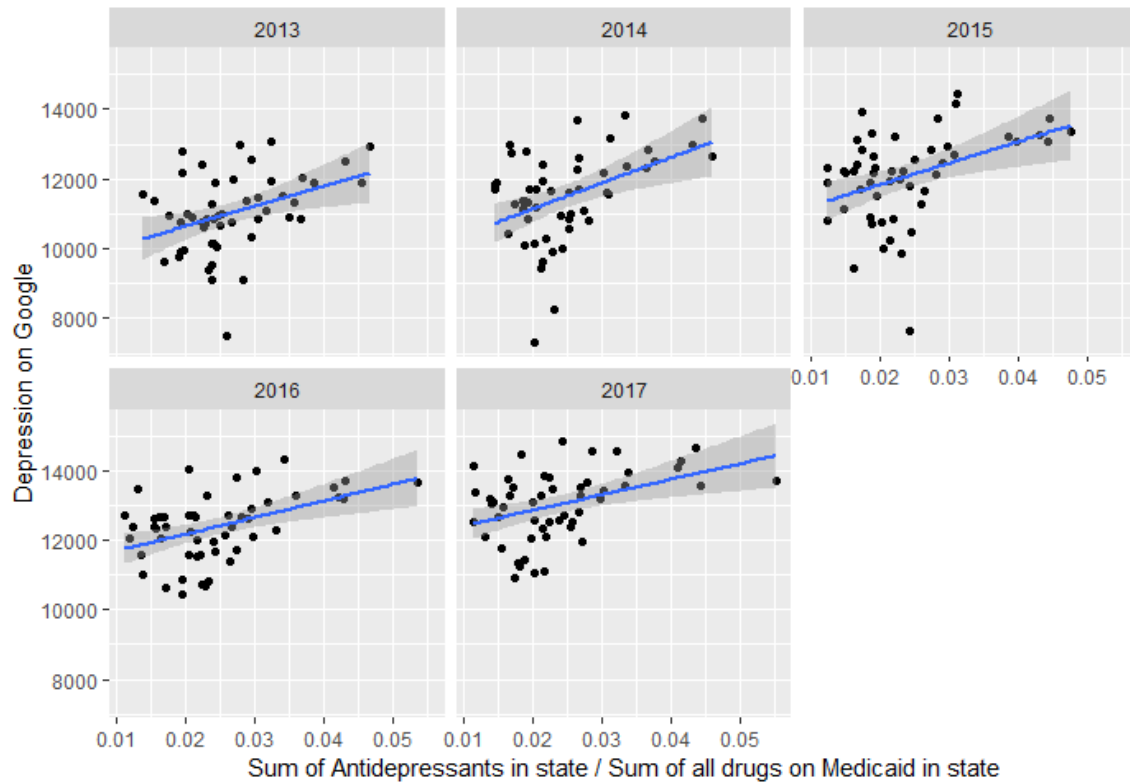
Supplementary Fig. 2. **State-level scatter plot of Google Depression composite and Antidepressants consumption**. Scatter plot and regression line of state-level proportion of Medicaid antidepressants consumption and Google search behavior.

Supplementary Table 1. **Multi-level interrupted time-series analysis for the search terms *Protest*.** Affiliation stands for political affiliation and signifies Democrats margin of victory. Values in parentheses denote standard errors; values in brackets denote 95% CIs.

Predictors	P1		P2		P3	
	Estimates	*Partial r*	*Estimates*	*Partial r*	*Estimates*	*Partial r*
(Intercept)	-438.24 ***	-0.085	-438.24 ***	-0.084	-438.24 ***	-0.085
	(32.25)	[-0.1,-0.07]	(31.88)	[-0.1,-0.07]	(32.07)	[-0.1,-0.07]
Spatial Lag	1.21 ***	0.643	1.21 ***	0.643	1.21 ***	0.643
	(0.01)	[0.64,0.65]	(0.01)	[0.64,0.65]	(0.01)	[0.64,0.65]
Time	-0.05	-0.006	-0.05	-0.006	-0.05	-0.006
	(0.05)	[-0.02,0.01]	(0.06)	[-0.02,0.01]	(0.06)	[-0.02,0.01]
Event	5224.55 ***	0.121	5224.56 ***	0.123	5224.55 ***	0.123
	(264.52)	[0.11,0.13]	(264.37)	[0.11,0.13]	(264.08)	[0.11,0.13]
Time:Event	-10.27 ***	-0.119	-10.27 ***	-0.119	-10.27 ***	-0.119
	(0.54)	[-0.13,-0.11]	(0.54)	[-0.13,-0.11]	(0.54)	[-0.13,-0.11]
Dem Margin	358.21 ***	0.023	349.73 ***	0.021	-881.03 **	-0.02
	(95.61)	[0.01,0.04]	(86.47)	[0.01,0.03]	(268.11)	[-0.03,-0.01]
Time:Dem Margin	1.64 ***	0.021	1.55 ***	0.021	1.60 ***	0.021
	(0.46)	[0.01,0.03]	(0.46)	[0.01,0.03]	(0.48)	[0.01,0.03]
Event:Dem Margin			541.81 *	0.014	11227.68 ***	0.032
			(239.59)	[0,0.03]	(2199.46)	[0.02,0.04]
Time:Event:Dem Margin					-21.81 ***	-0.031
					(4.46)	[-0.04,-0.02]
Random Effects						

σ^2	226843.27	226922.71	226655.52
τ_{00}	5903.01 $_{State}$	4725.02 $_{State}$	5372.95 $_{State}$
	0.12 $_{State.Time}$	0.12 $_{State.Time}$	0.13 $_{State.Time}$
	38837.96 $_{State.Event}$	33972.79 $_{State.Event}$	30301.69 $_{State.Event}$
	0.00 $_{State.Time.Event}$	0.00 $_{State.Time.Event}$	0.00 $_{State.Time.Event}$
N	49 $_{State}$	49 $_{State}$	49 $_{State}$
Observations	25480	25480	25480
AIC	386880.364	386876.624	386852.622
BIC	386978.1	386982.5	386966.7
log-Likelihood	-193428.182	-193425.312	-193412.311

* p<.05   ** p<.01   *** p<.001

Supplementary Table 2. Interrupted time-series regression analysis of depression proportion on Gallup. Affiliation stands for Political affiliation and is dummy-coded 1 for democrats and 0 for republicans. Gender is dummy coded 1 for females and 0 for males. Values in parentheses denote standard errors.

	Gallup Models:		
	Depression Proportion		
	M1	M2	M3
Time	0.0001^{***}	0.0001^{**}	0.0002^{**}
	(0.00004)	(0.0001)	(0.0001)
Event		0.001	0.001
		(0.003)	(0.004)
Time:Event		-0.0002	-0.0003
		(0.0003)	(0.0005)
Affiliation	0.024^{***}	0.025^{***}	0.024^{***}
	(0.005)	(0.005)	(0.005)
Is.Female	0.098^{**}	0.094^{**}	0.102^{**}
	(0.041)	(0.042)	(0.045)
Time: Affiliation			-0.0001
			(0.0001)
Event: Affiliation			-0.001
			(0.006)
Time:Event: Affiliation			0.0001
			(0.001)
Constant	0.041^{**}	0.042^{**}	0.039^{*}
	(0.018)	(0.019)	(0.020)
Observations	120	120	120
R^2	0.878	0.879	0.879
Adjusted R^2	0.875	0.873	0.871
AIC	-856.47	-852.98	-847.53
BIC	-842.53	-833.47	-819.66
Note:	$^{*}p<0.1;$ $^{**}p<0.05;$ $^{***}p<0.01$		

References

Morey, R. D., & Rouder, J. N. (2018). *BayesFactor: Computation of Bayes Factors for Common Designs*. Retrieved from https://CRAN.R-project.org/package=BayesFactor

Rouder, J. N., Morey, R. D., Speckman, P. L., & Province, J. M. (2012). Default Bayes factors for ANOVA designs. *Journal of Mathematical Psychology*, *56*(5), 356-374.

Rouder, J. N., Speckman, P. L., Sun, D., Morey, R. D., & Iverson, G. (2009). Bayesian t tests for accepting and rejecting the null hypothesis. *Psychonomic bulletin & review*, *16*(2), 225-237.