Mental illness and the left

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Abstract
It has been claimed that left-wingers or liberals (US sense) tend to be more mentally ill than right-wingers or conservatives. This potential link was investigated using the General Social Survey. A search found 5 items measuring one's own mental illness in different ways (e.g.”Do you have any emotional or mental disability?”). All of these items were associated with left-wing political ideology as measured by self-report. These results held up mostly in regressions that adjusted for age, sex, and race. For the variable with the most data, the difference in mental illness between “extremely liberal” and “extremely conservative” was 0.39 d. This finding is congruent with numerous findings based on related constructs.

Introduction

It has been reported that left-wingers or liberals (US sense) tend to be more mentally ill than right-wingers or conservatives (Bullenkamp & Voges, 2004; Duckworth et al., 1994; Guhname, 2007; Howard & Anthony, 1977; Kelly, 2014; Unorthodox Theory, 2020). This suggestion is consistent with other research with other research showing that religiousness predicts both mental and physical health (AbdAleati et al., 2016; Cotton et al., 2006; Dutton et al., 2018; Moreira-Almeida et al., 2006; Seeman et al., 2003; VanderWeele, 2017), given the known strong relationship between political conservatism and religiousness (Koenig & Bouchard Jr., 2006; Ludeke et al., 2013). Furthermore, political conservatism has been found to be associated with longevity (Kannan et al., 2019).

In a recent series of tweets, (Lemoine, 2020) analyzed data from the Slate Star Codex (SSC) 2020 reader survey (n = 8,043 (Alexander, 2020)), and showed that self-rated political ideological position (1-10 scale) and self-rated far left labels were related to mental health, as shown in Figure X.

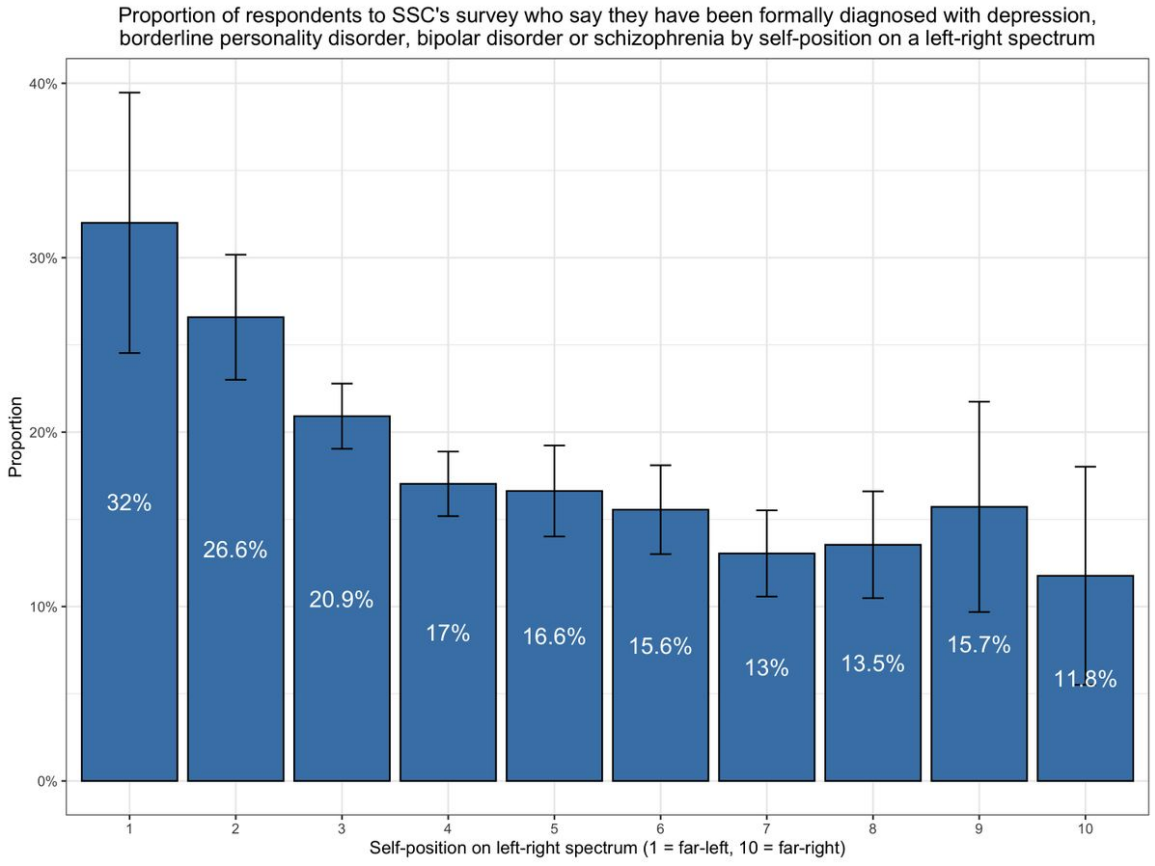


Figure X. Self-reported mental health and self-reported political label. Reproduced from (Lemoine, 2020).

However, the SSC survey is far from representative, being mainly limited to readers of a particular blog that attracts mainly European-descent, highly intelligent readers (Karlin, 2018). Thus, there was a need to replicate the analysis in more representative samples. Hence, the aim of the article was to examine the links between mental health and political ideology in the General Social Survey (GSS), a public access large-scale survey with relevant data.

Data

We used data from the cumulative cross-sectional file 1972-2018 (release 1) available for public use at https://gssdataexplorer.norc.org/pages/show?page=gss%2Fgss_data. This has a total sample size of 64,814, but not all items were asked in every wave, or given to all respondents in each wave. We searched the database for items relating to mental health. 5 items were found with at least a sample size of 1,000: shown in Table X. 4 of these were binary/dichotomous, and one was numeric. Political ideology was measured by a 1-7 scale going from extremely liberal to extremely conservative, which was available for all subjects. Figure X shows the distribution of political ideology by survey year.

Question	**Response**	**n**	**Years**
Do you have any emotional or mental disability?	Yes/no	2777	2006
Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?	Numeric [0-30]	11338	2002, 2004, 2006, 2010, 2012, 2014, 2016, 2018
First, thinking about health related matters, did any of the following happen to you since [12 months ago]? Underwent counseling for mental or emotional problems.	Yes/no	2345	1991, 2004
Have you ever felt you had a mental	Yes/no	1053	1996

health problem?			
Have you personally ever received treatment for a mental health problem?	Yes/no	1413	2006

Table X. Survey questions concerning mental health.

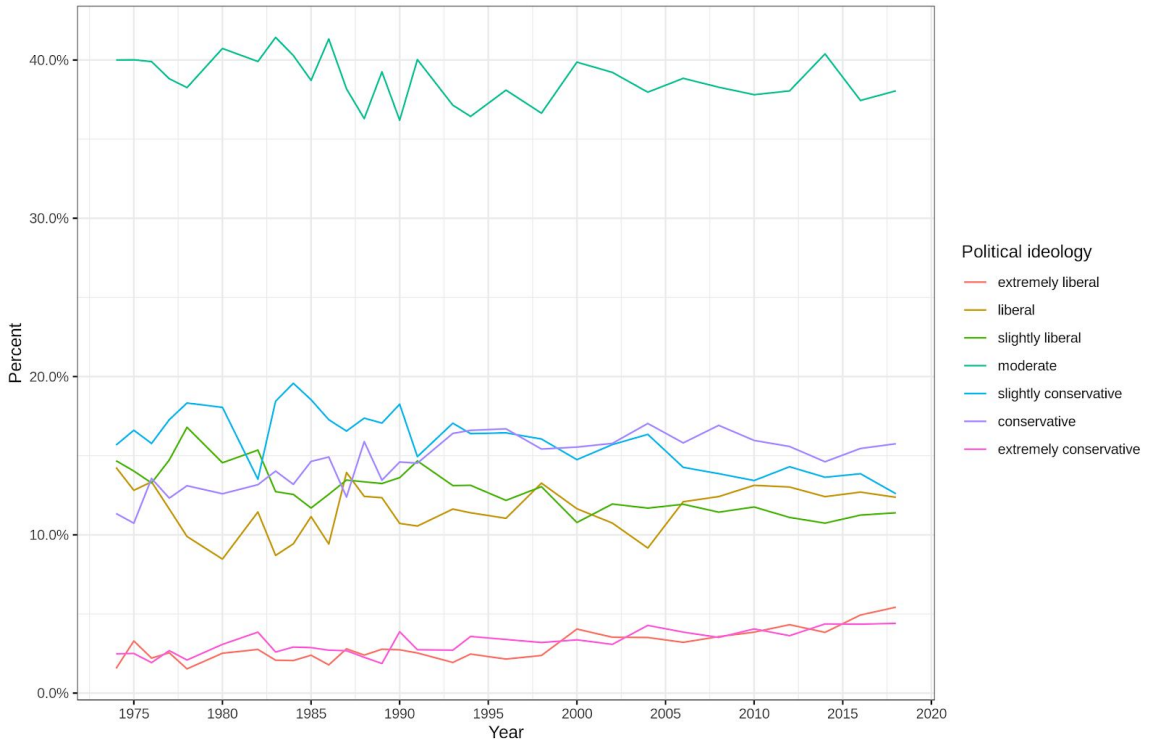
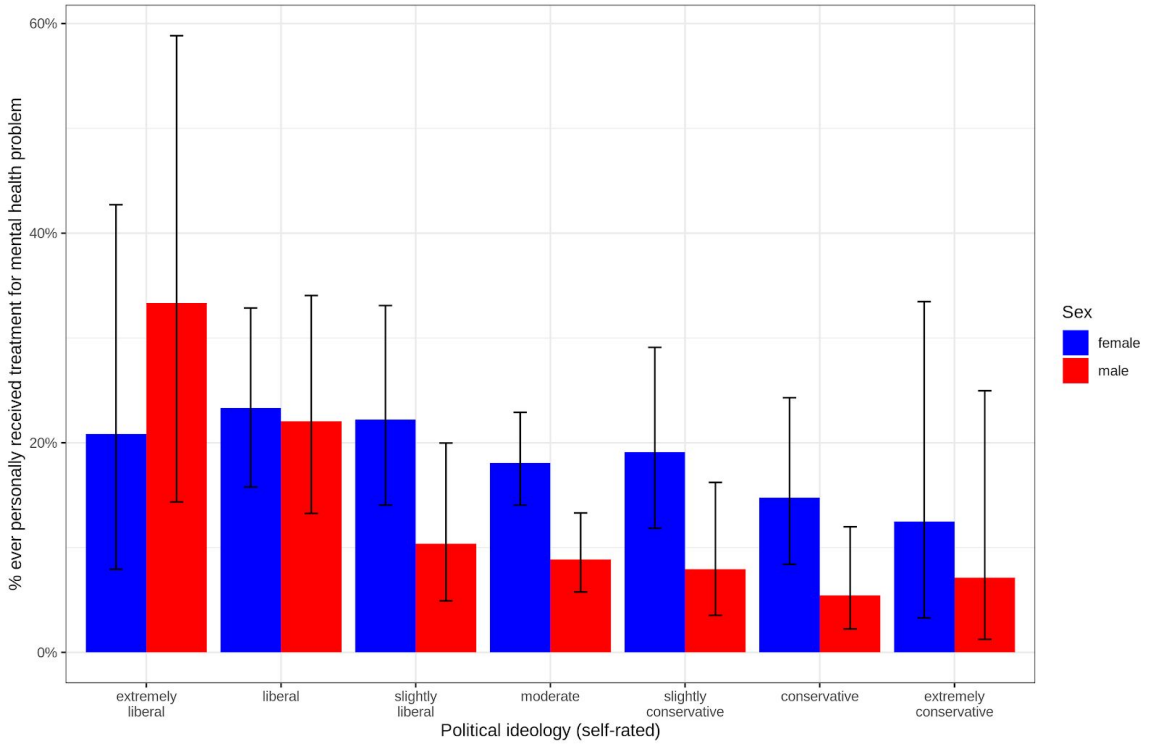


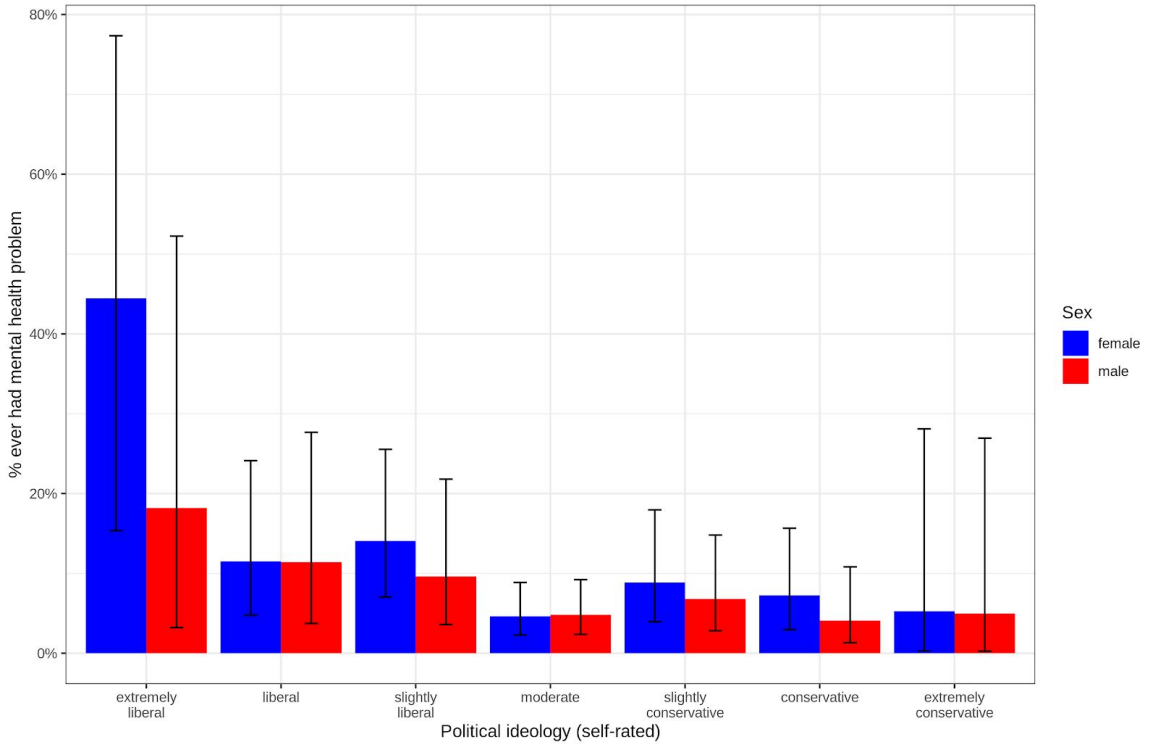
Figure X. Distribution of political ideology by survey year.

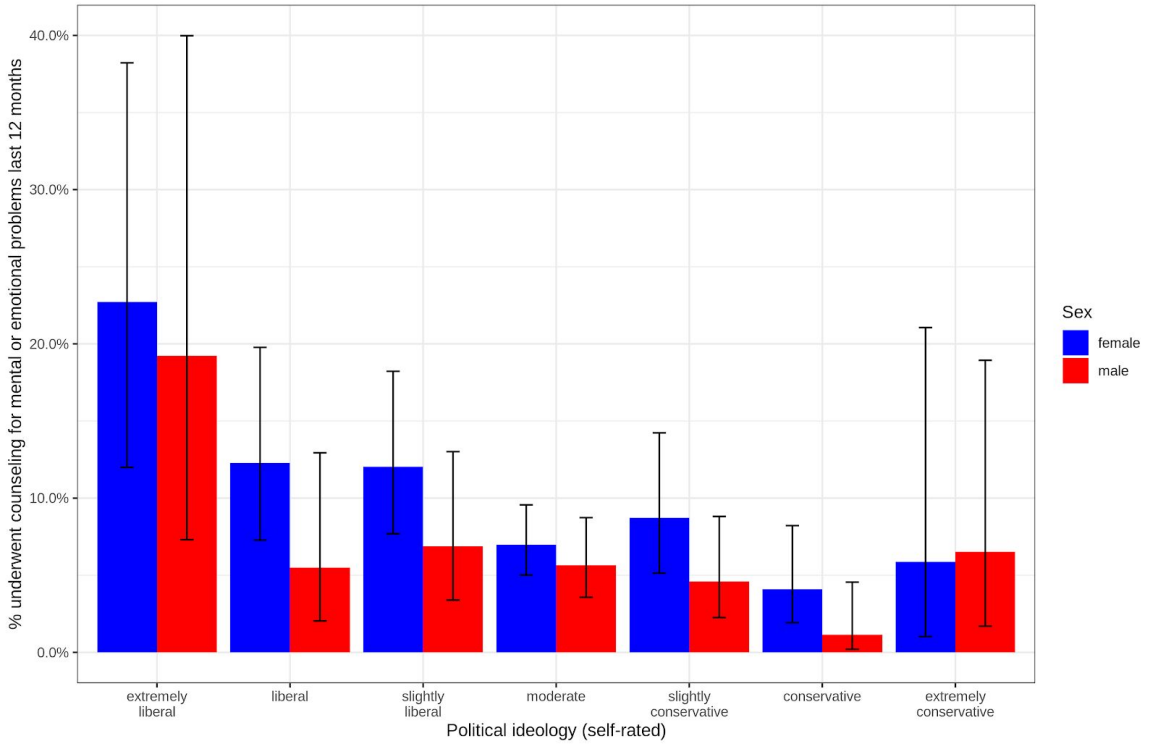
Moderates are the largest group at roughly 40% of the population. People with extreme views represent approximately 10% of the population in 2018 but only about 5% in 1975. Thus, there is a long running tendency towards more ideological extremism, at least insofar as this self-report measure is concerned. The increase in recent years is consistent with the pattern from other sources about the Great Awokening (Goldberg, 2019; Kaufman, 2019; Winegard & Winegard, 2018; Yglesias, 2019).

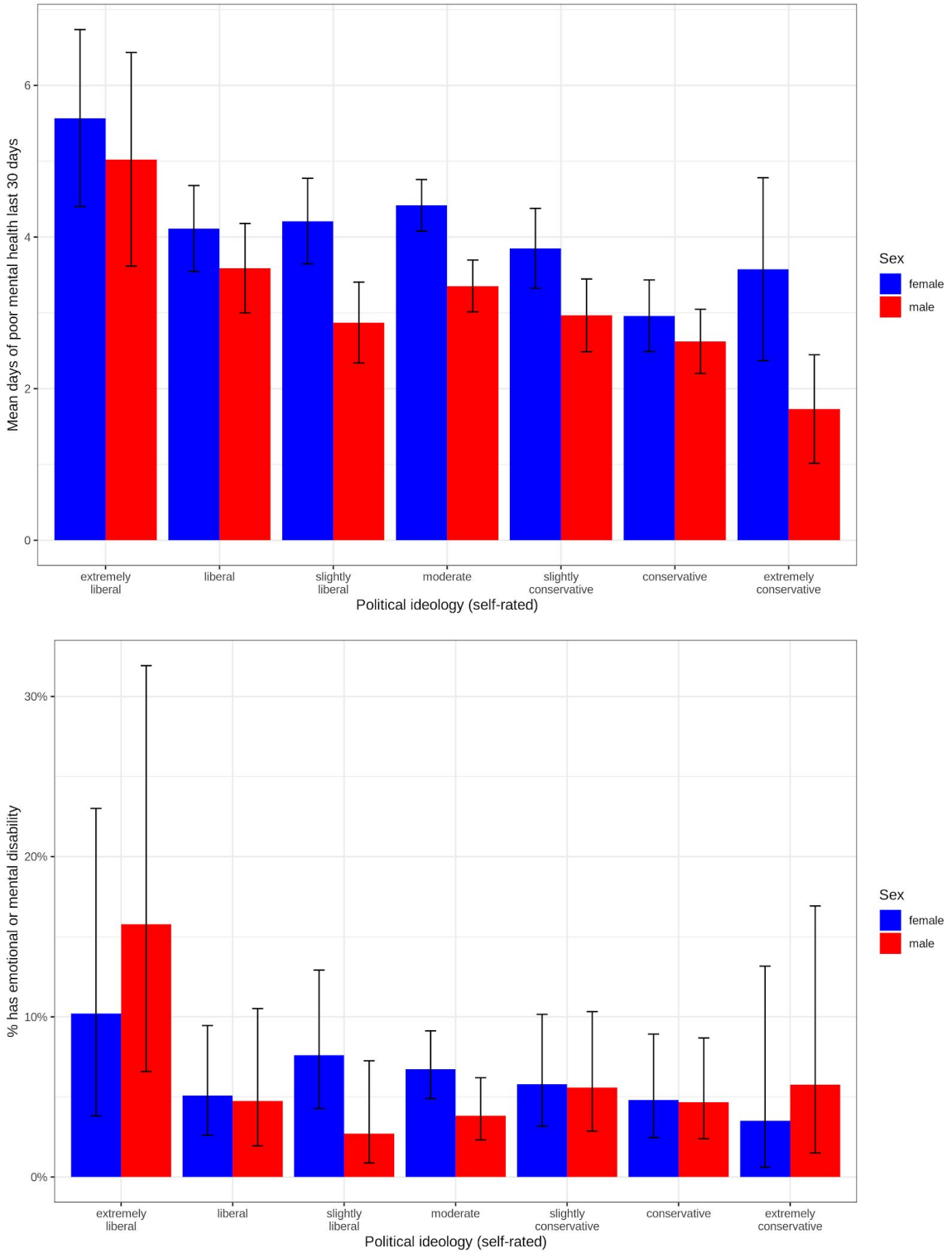
Results

First, we plotted the average of each outcome by political ideology and sex. We included a split by sex because sex relates to politics (women are slightly more left-wing), and sex relates to mental illness (women higher), and ignoring sex would thus lead to some confounding. Figures X-X show the results.


60%
40%
20%
0%
% ever personally received treatment for mental health problem
extremely liberal
liberal
slightly liberal
moderate
slightly conservative
conservative
extremely conservative
Political ideology (self-rated)
Sex
female
male


80%
60%
40%
20%
0%
% ever had mental health problem
extremely liberal
liberal
slightly liberal
moderate
slightly conservative
conservative
extremely conservative
Political ideology (self-rated)
Sex
female
male


40.0%
30.0%
20.0%
10.0%
0.0%
% underwent counseling for mental or emotional problems last 12 months
extremely liberal
liberal
slightly liberal
moderate
slightly conservative
conservative
extremely conservative
Political ideology (self-rated)
Sex
female
male



Figures X-X. Mental health outcomes by political ideology and sex. Error bars are 95% analytic confidence intervals.

So we see that for mental health outcome, left-wing political ideology, in particular “extremely liberal” predicts worse mental health. The results also hold across sexes, though the sample sizes are not large for the extreme groups. Are the results large enough to care about? One approach is calculating Cohen’s d values for the group gaps.

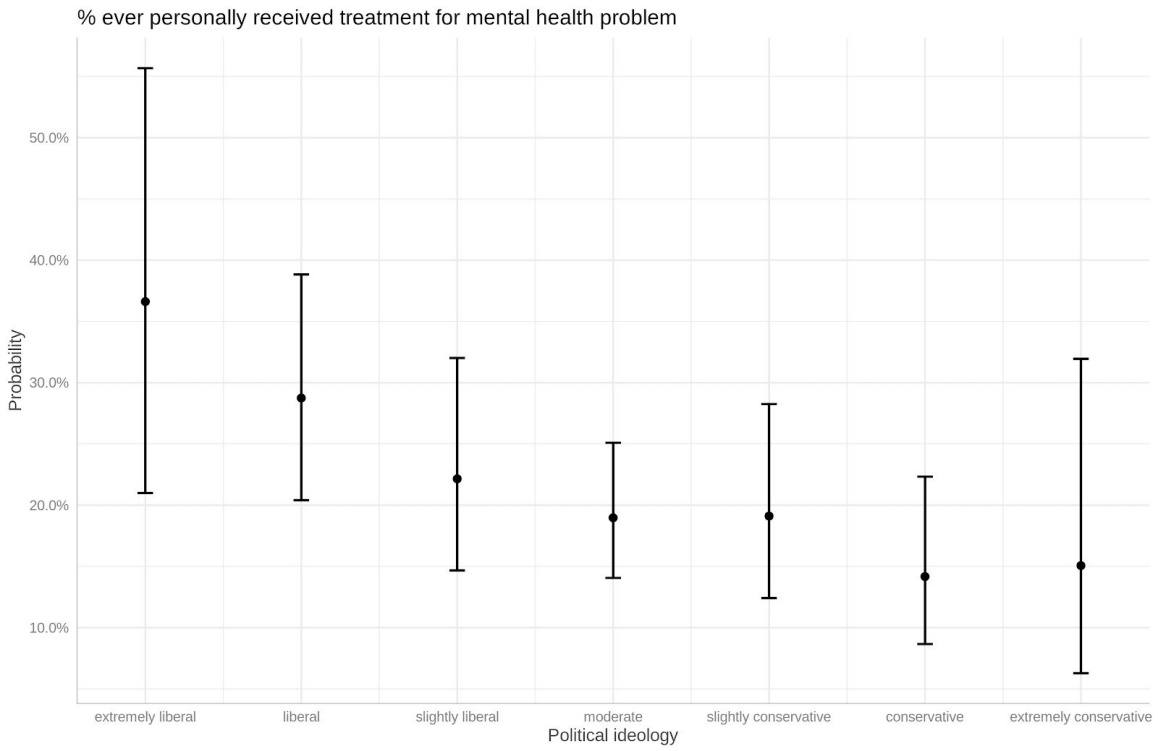
Table X, shows the results for the “days of poor mental health” variable with which we have the most data.

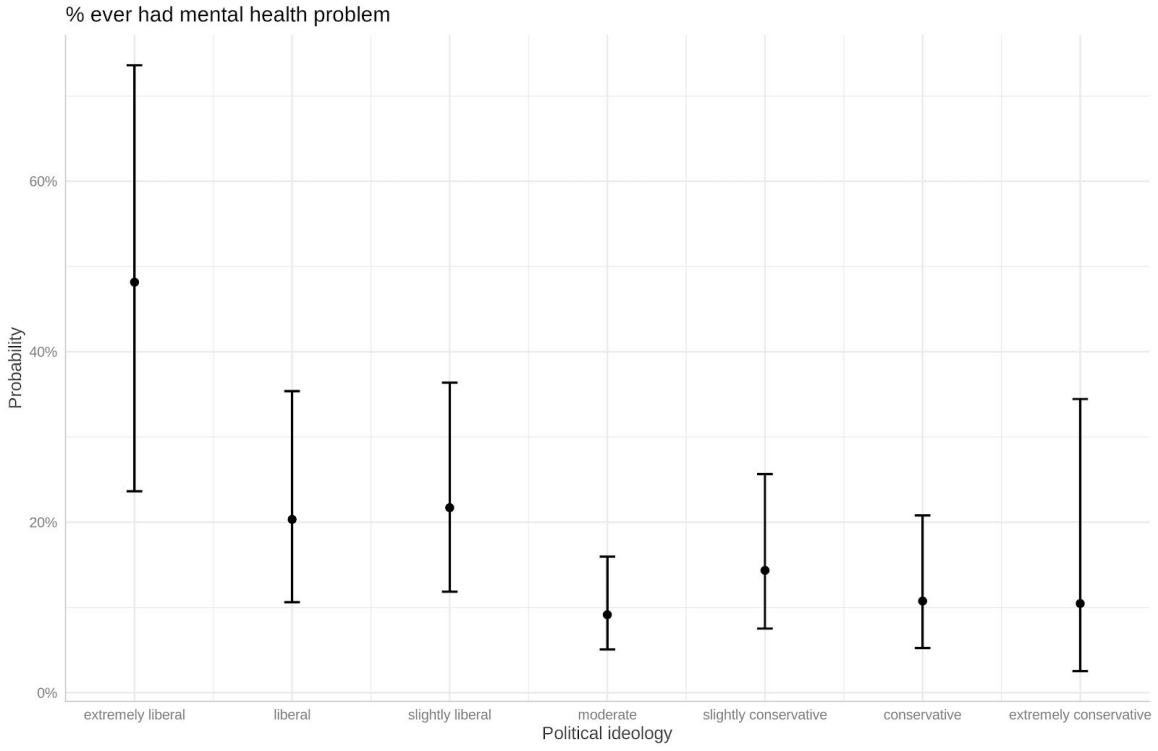
	Extremely liberal	**Liberal**	**Slightly liberal**	**Moderate**	**Slightly conservative**	**Conservative**	**Extremely conservative**
Extremely liberal		0.21	0.25	0.20	0.28	0.36	0.39
Liberal	0.21		0.04	-0.01	0.07	0.15	0.18
Slightly liberal	0.25	0.04		-0.05	0.03	0.12	0.14
Moderate	0.20	-0.01	-0.05		0.08	0.16	0.19
Slightly conservative	0.28	0.07	0.03	0.08		0.09	0.11
Conservative	0.36	0.15	0.12	0.16	0.09		0.03
Extremely conservative	0.39	0.18	0.14	0.19	0.11	0.03	

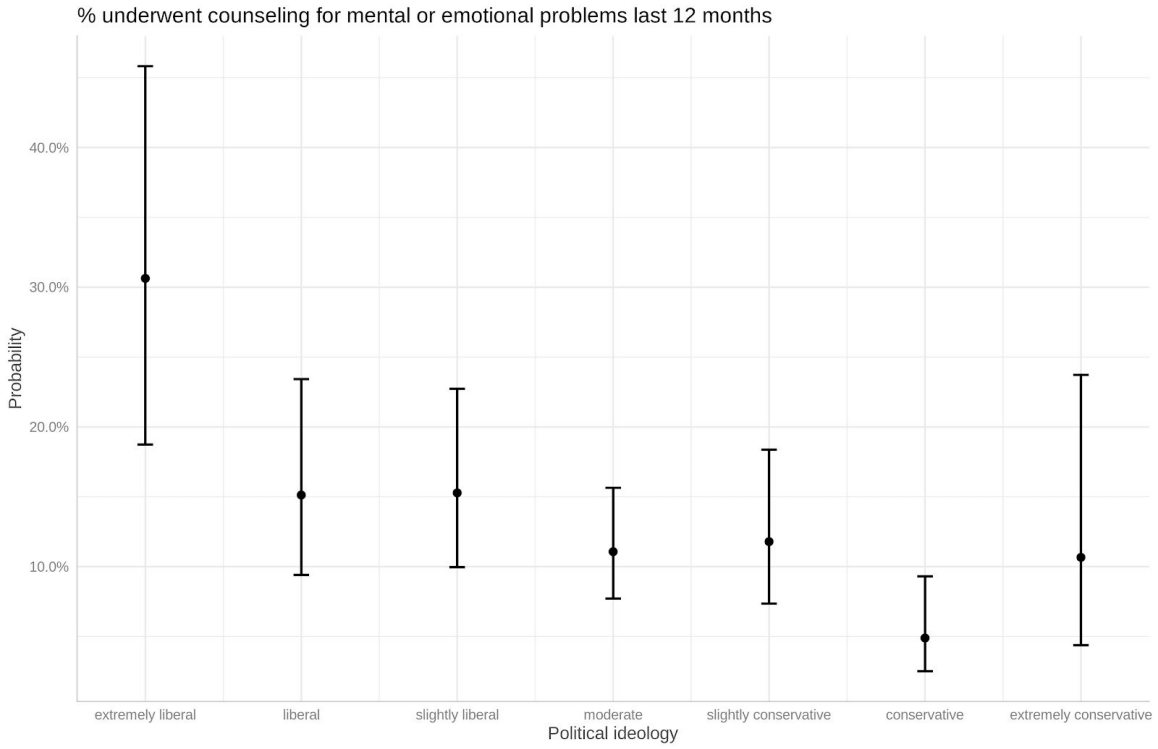
Table X. Cohen’s d gaps for “days of poor mental health last 30 days” by political ideology. Values indicate more days of poor health compared to the “extremely conservative” group.

For the two most extreme groups, the gap is of moderate size, at least as measured by this single item. Another way to quantify it, is to convert the political ideology into numeric form (1-7) and correlate it with the variable. This produces a correlation of only .07 ($p = 3e-10$). Hence, overall, the relationship between the two are quite weak, and it is only for extreme groups it reaches a notable size.

To examine whether age was a confound, we fit a regression model for each outcome, logistic models for the dichotomous and OLS for the continuous (days of poor health). Each model included political ideology, age (as a spline), and sex as predictors, without any interactions as the sample size did not provide sufficient statistical power. Then we projected the predicted levels of mental health from the models using the **ggeffects** package’s *ggpredict()* function (Lüdecke, 2018), shown in Figues X-X.


% ever personally received treatment for mental health problem
50.0%
40.0%
30.0%
20.0%
10.0%
Probability
extremely liberal
liberal
slightly liberal
moderate
slightly conservative
conservative
extremely conservative
Political ideology


% ever had mental health problem
60%
40%
20%
0%
Probability
extremely liberal
liberal
slightly liberal
moderate
slightly conservative
conservative
extremely conservative
Political ideology


% underwent counseling for mental or emotional problems last 12 months
40.0%
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Probability
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slightly liberal
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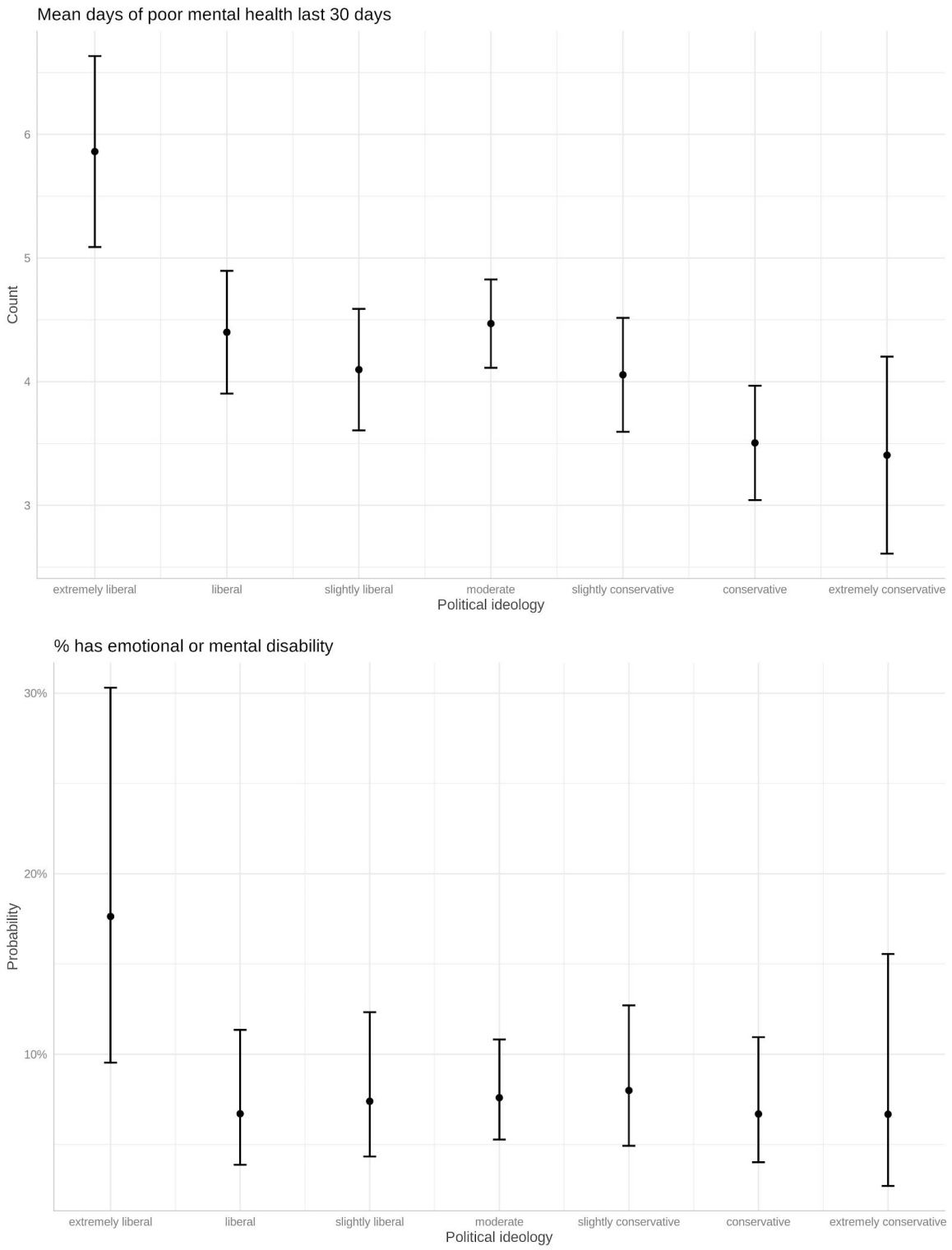
Political ideology



Figures X-X. Model projections of mental health by political ideology, controlling for age and sex (covariates are held at average values).

Generally, the results show that there is some relationship between mental health and political ideology such that left-wingers have worse outcomes. The confidence intervals are fairly wide, however. For people reporting on having an emotional mental disorder or not, there was seemingly no pattern except that “extreme liberal” reported having this higher than everybody else. As a robustness test, we ran models on whites only to avoid

any potential confound with race and mental illness (Kirkegaard, 2019). However, the results were very similar and not shown here. Full statistical output and code can be found in the supplementary materials (https://osf.io/fhpxm/).

Discussion

The present study investigated a large dataset of representative adult Americans to see whether there was a relationship between political ideology and mental health. Prior research and media claims had indicated these variables were related such that left-wing ideology was associated with worse mental health (Bullenkamp & Voges, 2004; Duckworth et al., 1994; Guhname, 2007; Howard & Anthony, 1977; Kelly, 2014; Lemoine, 2020; Unorthodox Theory, 2020). The results of the present study are in line with previous claims, in particular concerning people who reported being “extremely liberal”, though this is a small minority of persons in the study (about 5% in 2018, cf. Figure X). It is notable that the outcome based on the largest sample size (n = 11,338, spanning the years 2002-2018) showed one of the most consistent patterns (days of poor mental health last 30 years), both in the simple averages by sex and when adjusting for age. The effect size between the two extreme groups was 0.39 d, thus of moderate size. Considering that this is a single item measure, which has limited reliability, the true effect size would perhaps be around 0.50 (assuming about 0.70 test-retest reliability (Kim & Abraham, 2016; Littman et al., 2006; Spörrle & Bekk, 2014)). On the other hand, the correlation between the variables is only .07 (p = 3e-10). So, is the effect large enough to care about? It may depend on whether one is interested in people with extreme political views, roughly in the top 10% of extremism (5% on either side, cf. Figure X). There is evidence that most political discourse and activism is done by highly interested, generally intelligent people (Kalmoe, 2020). Thus, one might expect that among such people, the left-wing political activists would tend to be more mentally ill than the equally extreme right-wing political activists.

With regards to etiology, this kind of cross-sectional study is not highly informative. Both mental illness and political ideology are substantially heritable (Brikell et al., 2018; Kirkegaard, 2018; Neumann et al., 2016). A good start would be doing a multivariate behavioral genetic study to assess the degree to which the relations are due to common genetic variance or shared environmental (which includes upbringing). Based on prior findings (Kirkegaard, 2018), it is unlikely that the shared environment contributes substantially to the relation. However, even finding common genetic variation would not necessarily be informative regarding causality. It is possible that mentally ill people select into extreme left-wing views, or that being in extreme left-wing contexts results in mental illness. It is also likely that both are caused to some degree by other factors not measured here. With regard to overlap between contexts, it is well-known that academics lean extremely to the left (especially the softer fields), and show high rates of mental illness (Duarte et al., 2015; Kinman & Wray, 2013; Langbert, 2018). There are also reports of increasing rates of mental illness among students and PhD students in particular (Levecque et al., 2017; Puthran et al., 2016; Rotenstein et al., 2016; Twenge et al., 2010). This suggests that there is perhaps something about being in university that is causal for mental illness and probably also encourages people with poor mental health to self-select into it. A particularly informative study would be family study (e.g. siblings,

twins, cousins) which examined to which degree the relationship between mental illness and left-wing politics is found within family units (but see Kyaga et al., 2013). Another promising route would be to look at people who were somehow randomized to attend college or not, or become a PhD student or not, perhaps as a result of a lottery for scholarships. This would remove the possibility of self-selection, and thus be informative about the degree of causality from university attendance or employment.

Limitations and suggestions

The study has a number of limitations. First, since we were limited to single items, there is a question of whether these tap into the construct properly (construct validity). Generally, research on single item measures of mental health find that they are useful (Ahmad et al., 2014). The research cited earlier employed stronger methods such as looking at the voting pattern of people who are institutionalized or hospitalized for mental illness, and also found a left-wing association. Thus, the evidence comes from many sources but points in the same direction.

Second, the sample sizes were not always sufficient to estimate differences with confidence for the extreme groups. We used all the available data as of this time. Research should attempt to find large surveys that use better measures of mental illness, and include a measure of political ideology. Another alternative is to scrape data from political activists online (e.g. Twitter) and examine it for indicators of mental illness (Coppersmith et al., 2014; Nadeem, 2016; Reece et al., 2017; Resnik et al., 2015).

Third, a thorny issue is whether there is measurement invariance by group. In the case of single items, one cannot conduct measurement invariance (MI) testing since differential item functioning (DIF) tests rely upon other items. One reason to believe there might be measurement bias is that left-wing political views are on the whole more friendly disposed towards people with mental illness (Gonzales et al., 2017; Parcesepe & Cabassa, 2013), and thus may be more willing to seek help, get diagnosed, get treatment, and even admit their problems to themselves (Alexander, 2020). This sort of measurement bias could be examined using standard methods such as multi-group confirmatory factor analysis (MGCFA), and DIF, especially if one used a heterogenous set of items or tests. A number of studies have examined other groups where one might expect measurement bias exist and found it lacking (Hoe & Brekke, 2008; Iliceto et al., 2013; T.-H. Wu et al., 2015). Finally, one might look at objective or other-ratings of mental illness. Among objective indicators, the suicide rate is attractive as it represents a concrete action that is difficult to misinterpret. Various research shows that conservative and religious people have much lower suicide risk, suggesting lower rates of mental illness among conservative and religious people (Stack & Wasserman, 1992; A. Wu et al., 2015). However, the same argument could be made here that suicides are a faulty indicator because Abrahamic religions have laws against them, which result in fewer suicides despite equal rates of mental illness. Yet another approach is to look at the opposite end of the scale: happiness. Are conservatives happier? Indeed, there is a large literature examining this “happiness gap” in favor of conservatives (Schlenker et al., 2012). On the opposite end of the spectrum, but still within normal range, we find that conservatives are lower in the Big Five personality trait of neuroticism (Burton et al.,

2015), which is a known correlate of mental illness diagnoses (Kotov et al., 2010; Nagel et al., 2018). We confirmed that the relationship with happiness held in the GSS using data from 2 items about happiness, totaling 54,822 responses (results are given in the appendix). To conclude, while the question of measurement invariance for mental illness could not be ruled out, all the alternative methods produced results in the same direction. Thus, it is likely that the mental illness association with left-wing political ideology is real.

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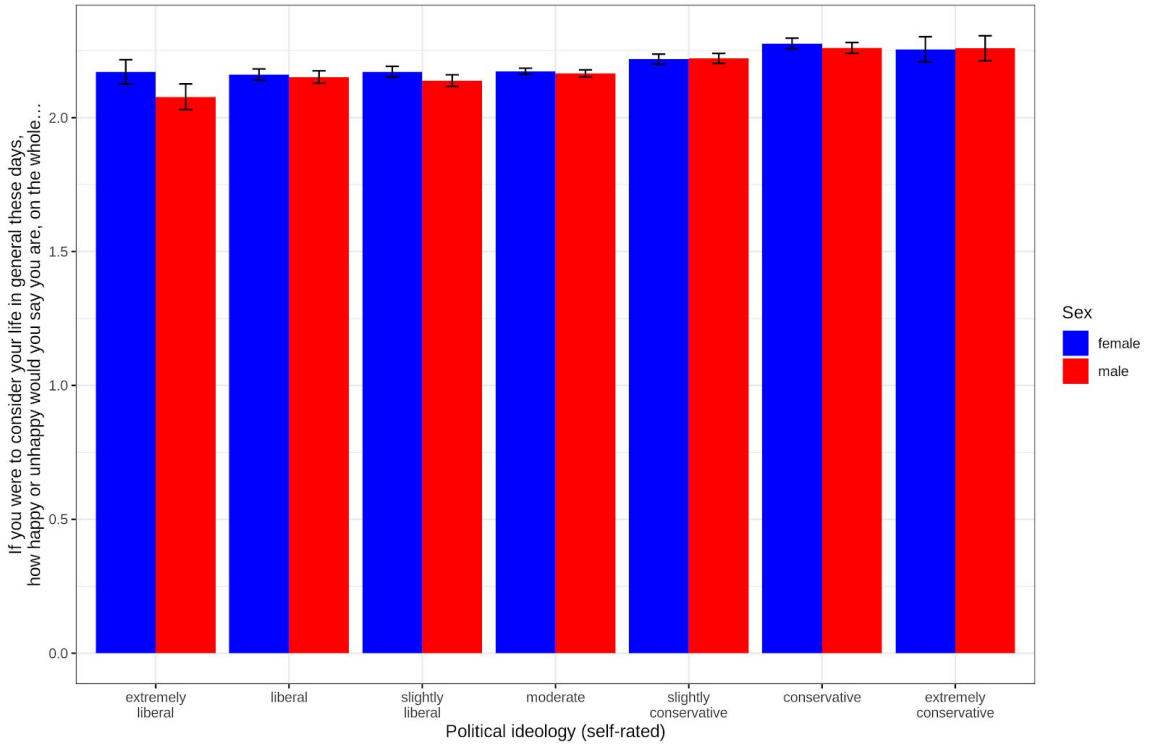
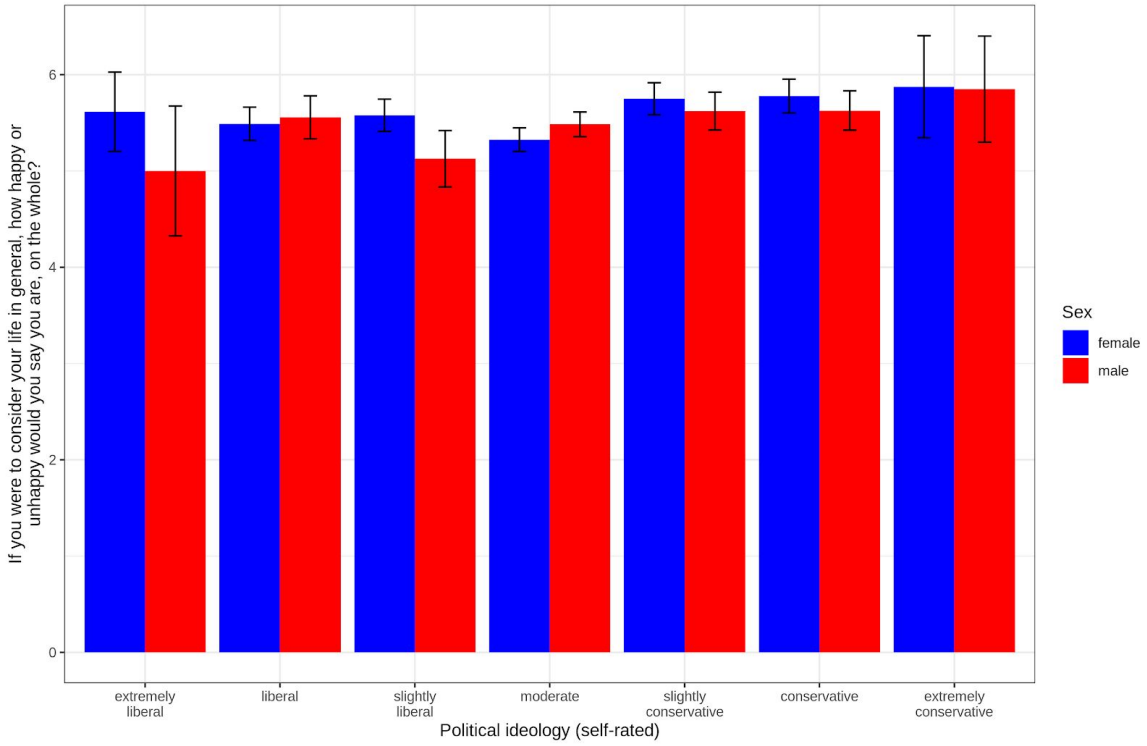
Appendix: happiness and political ideology

There were two happiness items with large sample sizes. The first: “If you were to consider your life in general these days, how happy or unhappy would you say you are, on the whole…”, options: “not too happy”, “pretty happy”, “very happy”. The second: “If you were to consider your life in general, how happy or unhappy would you say you are, on the whole?”, options: “completely unhappy”, “very unhappy”, “fairly unhappy”, “neither happy nor unhappy”, “fairly happy”, “very happy”, “completely happy”. We converted the scale to numerical form (i.e. to 1-3 and 1-7) to allow numerical computations as with the “days of poor mental health” item. Results are shown below. The correlations with political ideology were 0.06 ($p < 2e\text{-}16$, $n = 53{,}600$) and .11 ($p = 1e\text{-}04$, $n = 1{,}222$). Cohen’s d between the two extreme groups is 0.20 and 0.56, respectively.




If you were to consider your life in general, how happy or unhappy would you say you are, on the whole?
6
4
2
0
extremely liberal
liberal
slightly liberal
moderate
slightly conservative
conservative
extremely conservative
Political ideology (self-rated)
Sex
female
male