

Appendix

Section 1. Data selection criteria

Before analysis, we removed data that met one or more of the following criteria:

1. Wrong answers to either of the attention check questions.
2. Contains any of the following types of illogical answers:
 - a. Estimated number of deaths larger than estimated number of infections.
 - b. Estimated death rate in percentage larger than 100.
 - c. Minimum death rate larger than maximum death rate.
3. Duplicated words in the Emotional Recall Task.
4. More than two nonwords in the Emotional Recall Task.
5. Identical answers provided by different participation IDs.

For participants who completed two or more sessions, we removed data from those whose

- reported age in two sessions differed by more than 2 years;
- reported education in two sessions differed by more than one category;
- reported gender in two sessions differed (this criterion may exclude people who changed their gender in 2020. One Chinese participant and one American participant switched reported gender during the four waves. A few participants answered “decline to tell” in one session and a specific gender in the other. In these cases, we took the specific gender as the response);
- and responses had missing data for the variables we included in the analysis (3 Chinese participants and 4 American participants).

Section 2: Frequency Table of Emotion Words Produced in the Emotional Recall Task

Table S1

Frequency Table of Top 20 Emotion Words Produced Across the Four Waves of Data Collection

The United States			China		
Emotions	Frequency	In PANAS?	Emotions	Frequency	In PANAS?
			In Chinese	English Translation	
tired	29%		开心	happy	30%
happy	25%		平静	calm	23%
worried	20%		焦虑	anxious	22%
anxious	19%		无聊	bored	20%
sad	16%		期待	hopeful	17%
calm	14%		担心	worried	16%
bored	13%		累	tired	15%
content	12%		紧张	nervous	14% Yes
stressed	12%		烦躁	irritated	11%
hopeful	12%		难过	sad	10%
frustrated	11%		兴奋	excited	9% Yes
busy	10%		郁闷	depressed	9%
nervous	9%	Yes	忙碌	busy	9%
angry	8%		愤怒	angry	8%
relaxed	8%		迷茫	confused	8%
concerned	8%		无奈	resigned	6%
annoyed	7%		轻松	relaxed	6%
interested	7%	Yes	压力	stressed	6%
scared	7%	Yes	充实	fulfilled	5%
excited	6%	Yes	受打击	battered	4%
depressed	6%		沮丧	frustrated	4%

Note: Frequency refers to the averaged proportion of participants reporting that word in one wave. Positive words in PANAS were colored in blue and negative words in PANAS were colored in red.

Section 3: Analyses of Entire Valid Samples

We present analyses on the overlap samples in the main text. Here, we present the analyses on the entire valid samples. The results are largely consistent between the two. Note that we did not administer the behavioral questions in the first wave. Rather, in the second wave we asked participants to recall their behaviors in mid-February (time of Wave 1). Therefore, analysis that involves preventive behavior can only be conducted on the overlap samples.

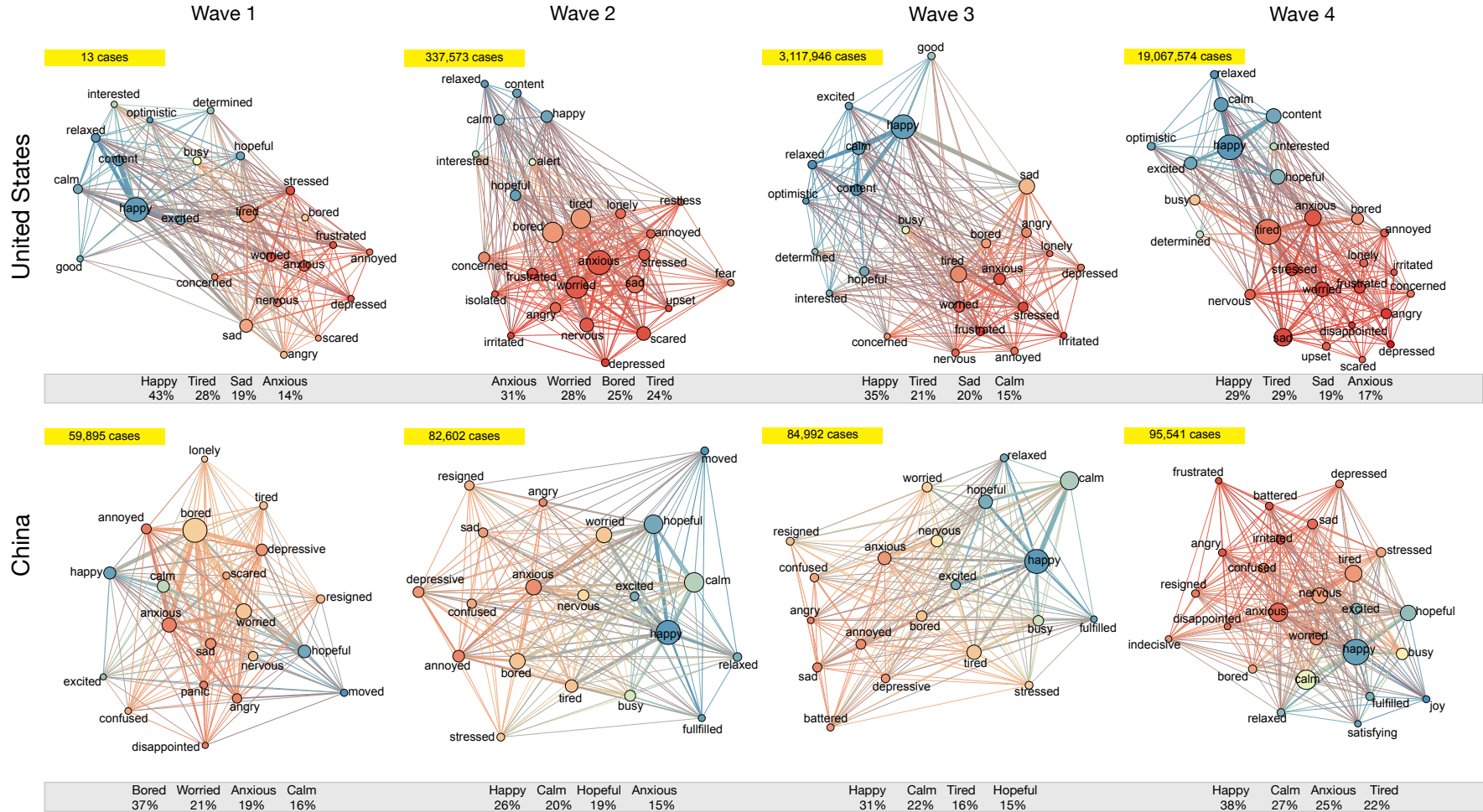


Figure S1. Emotional Recall Task (ERT) responses visualized as an experiential co-occurrence network. Corresponds to Figure 2 in the main text.

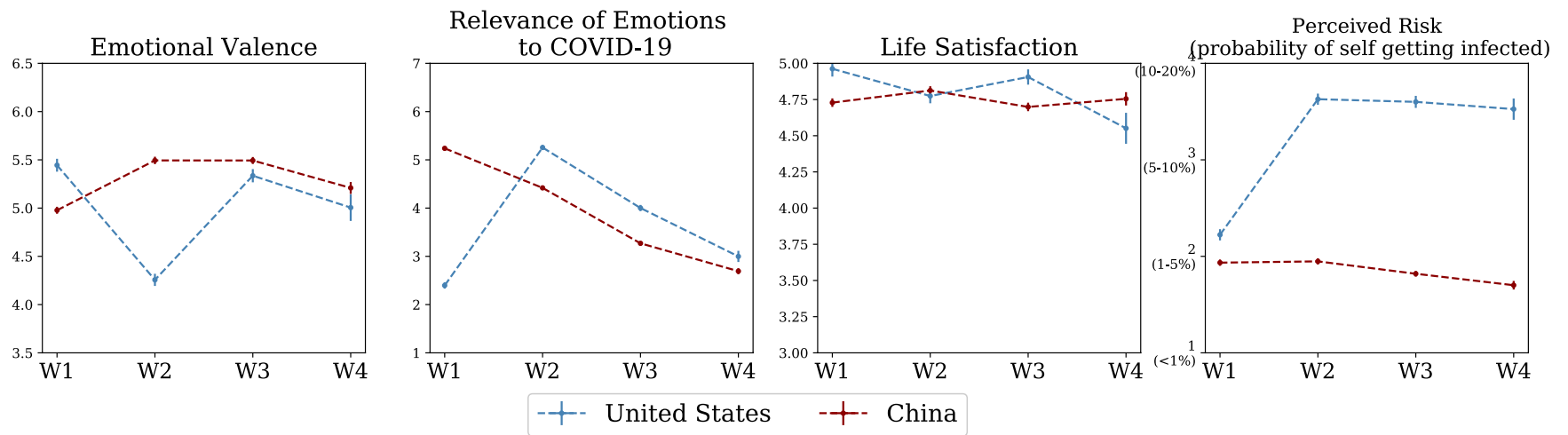


Figure S2. Changes in emotional valence, relevance of reported emotions to the COVID-19 pandemic, life satisfaction, and perceived risk across the four waves of data collection. Corresponds to Figure 3 in the main text.

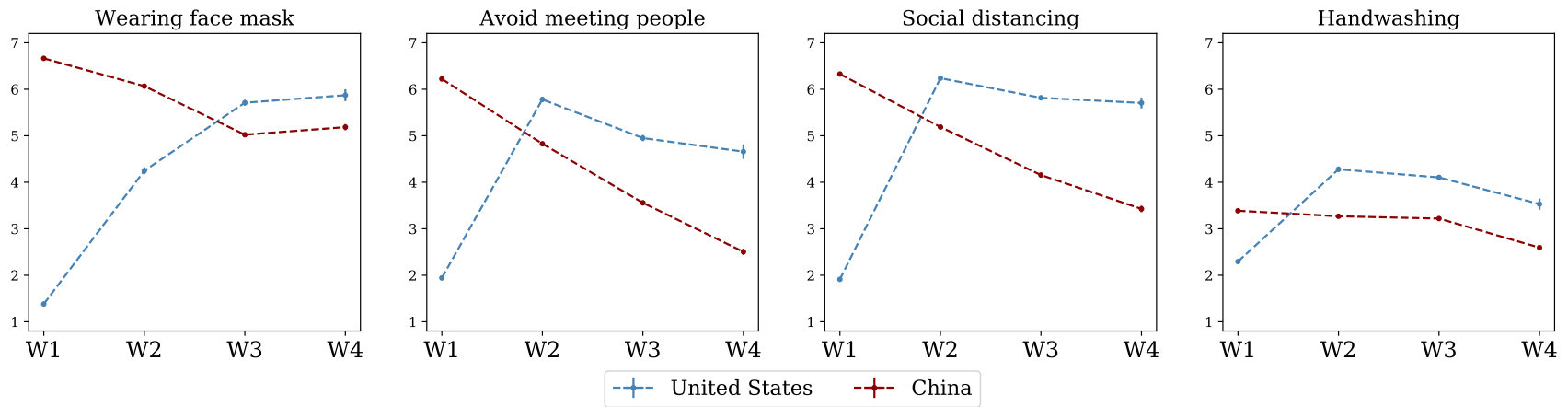


Figure S3. Mean reported engagement in four preventive behaviors. Corresponds to Figure 5 in the main text.

Table S2

Summary of Regression Models Predicting Preventive Behaviors. Corresponds to Table 2 in the main text

<i>Predictors</i>	United States								China							
	Wave 1		Wave 2		Wave 3		Wave 4		Wave 1		Wave 2		Wave 3		Wave 4	
	<i>Estimates</i>	<i>p</i>	<i>Estimates</i>	<i>p</i>	<i>Estimates</i>	<i>p</i>	<i>Estimates</i>	<i>p</i>	<i>Estimates</i>	<i>p</i>	<i>Estimates</i>	<i>p</i>	<i>Estimates</i>	<i>p</i>	<i>Estimates</i>	<i>p</i>
(Intercept)	0.45	0.002	-0.27	0.007	-0.14	0.252	-0.05	0.835	-0.09	0.449	-0.10	0.182	-0.03	0.603	0.01	0.937
Fear & anxiety	-0.04	0.403	0.11	0.001	0.06	0.072	0.03	0.653	0.06	0.048	0.02	0.305	-0.01	0.585	-0.05	0.194
Worry	0.00	0.918	0.13	<0.001	0.11	0.001	0.10	0.100	0.08	0.011	-0.01	0.726	0.03	0.090	0.02	0.666
Boredom	-0.01	0.864	0.01	0.808	-0.01	0.813	0.04	0.542	0.04	0.194	-0.02	0.419	-0.02	0.257	-0.08	0.031
Information acquisition	0.27	<0.001	0.15	<0.001	0.22	<0.001	0.24	<0.001	0.10	0.002	0.19	<0.001	0.23	<0.001	0.22	<0.001
Knowledge about COVID-19	0.07	0.198	0.12	<0.001	0.14	<0.001	0.11	0.078	0.08	0.010	0.11	<0.001	0.09	<0.001	0.13	0.001
Emotional valence of information	0.07	0.190	-0.04	0.193	-0.07	0.061	0.00	0.978	0.02	0.651	0.01	0.490	0.06	0.004	0.04	0.297
Perceived personal risk	0.17	0.002	0.12	<0.001	0.13	<0.001	0.34	<0.001	-0.05	0.138	0.03	0.179	0.04	0.056	0.07	0.064
Age	-0.13	0.004	-0.00	0.916	-0.04	0.220	0.00	0.937	0.14	<0.001	0.18	<0.001	0.19	<0.001	0.07	0.113
Gender (female)	-0.04	0.659	0.20	0.001	0.12	0.070	0.09	0.439	0.14	0.053	0.23	<0.001	0.14	0.001	0.23	0.009
Education	-0.12	0.018	0.04	0.262	0.02	0.675	-0.03	0.709	0.01	0.759	-0.00	0.846	-0.01	0.631	-0.03	0.501
Infections in one's social circle (TRUE)	0.93	0.001	0.31	<0.001	0.08	0.265	0.11	0.384	0.03	0.817	0.25	0.001	0.10	0.146	-0.18	0.173
Observations	496		919		877		235		1075		2032		2238		665	
R ² adjusted	0.150		0.172		0.138		0.228		0.039		0.111		0.139		0.082	

Note: All variables are scaled and centered except categorical variables (gender, education, infections in one's social circle). Political affiliation is not included in this regression analysis because it was added to the survey only since the third wave of data collection.

Section 4: Detailed Statistics of the Repeated-Measures ANOVA Tests

For all repeated-measures ANOVA analyses reported here, we tested the sphericity assumption. To avoid inflated statistical significances, degrees of freedom were adjusted when the sphericity assumption was violated.

Table S3

Repeated-Measures ANOVA: Emotional Valence

China

ANOVA table

Effect	DF _{numerator}	DF _{denominator}	Statistics	p	ges
Wave	3	1964	28.5	7.41e-18	0.022

Post-hoc comparison (6 pairwise t-tests)

Group1	Group2	N	Statistic	df	p.adj (Bonferroni)	p.adj Significance
W1	W2	655	-8.89	664	3.39e-17	***
W1	W3	655	-6.53	664	7.62e-10	***
W1	W4	655	-6.21	664	5.59e-9	***
W2	W3	655	2.23	664	1.57e-1	ns
W2	W4	655	2.04	664	2.48e-1	ns
W3	W4	655	0.008	664	1.00e+0	ns

United States

ANOVA table

Effect	DF _{numerator}	DF _{denominator}	Statistics	p	ges
Wave	3	699	40.0	7.24e-24	0.058

Post-hoc comparison (6 pairwise t-tests)

Group1	Group2	N	Statistic	df	p.adj (Bonferroni)	p.adj Significance
W1	W2	234	9.65	233	5.53e-18	***
W1	W3	234	3.18	233	1.00e-2	*
W1	W4	234	1.63	233	6.30e-1	ns
W2	W3	234	-6.94	233	2.36e-10	***
W2	W4	234	-7.94	233	5.00e-13	***
W3	W4	234	-1.67	233	5.75e-1	ns

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.

Table S4*Repeated-Measures ANOVA: Life Satisfaction*

China

ANOVA table

Effect	DF _{numerator}	DF _{denominator}	Statistics	p	ges
Wave	3	1932	3.4	0.018	0.001

Post-hoc comparison (6 pairwise t-tests)

Group1	Group2	N	Statistic	df	p.adj (Bonferroni)	p.adj Significance
W1	W2	655	-2.54	664	0.068	ns
W1	W3	655	0.672	664	1	ns
W1	W4	655	-0.976	664	1	ns
W2	W3	655	2.99	664	0.017	*
W2	W4	655	1.26	664	1	ns
W3	W4	655	-1.77	664	0.466	ns

United States

ANOVA table

Effect	DF _{numerator}	DF _{denominator}	Statistics	p	ges
Wave	3	669	6.53	0.0003	0.003

Post-hoc comparison (6 pairwise t-tests)

Group1	Group2	N	Statistic	df	p.adj (Bonferroni)	p.adj Significance
W1	W2	234	4.27	233	0.0002	***
W1	W3	234	3.06	233	0.015	*
W1	W4	234	3.05	233	0.015	*
W2	W3	234	-1.11	233	1	ns
W2	W4	234	-0.62	233	1	ns
W3	W4	234	0.36	233	1	ns

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.

Table S5*Repeated-Measures ANOVA: Perceived Risk*

China

ANOVA table

Effect	DF _{numerator}	DF _{denominator}	Statistics	p	ges
Wave	3	1865	26.9	3.71e-16	0.015

Post-hoc comparison (6 pairwise t-tests)

Group1	Group2	N	Statistic	df	p.adj (Bonferroni)	p.adj Significance
W1	W2	655	5.46	664	4.06e- 7	***
W1	W3	655	8.11	664	1.52e-14	***
W1	W4	655	5.88	664	3.88e- 8	***
W2	W3	655	3.02	664	1.60e- 2	*
W2	W4	655	0.77	664	1	ns
W3	W4	655	-2.20	664	1.67e- 1	ns

United States

ANOVA table

Effect	DF _{numerator}	DF _{denominator}	Statistics	p	ges
Wave	3	624	137.7	7.44e-63	0.186

Post-hoc comparison (6 pairwise t-tests)

Group1	Group2	N	Statistic	df	p.adj (Bonferroni)	p.adj Significance
W1	W2	234	-16.8	233	2.59e-41	***
W1	W3	234	-13.3	233	1.32e-29	***
W1	W4	234	-14.5	233	1.38e-33	***
W2	W3	234	3.99	233	5.21e- 4	***
W2	W4	234	2.61	233	5.80e- 2	ns
W3	W4	234	-1.26	233	1	ns

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.