The Constructive and Destructive Power of Social Norms in the Presence of Authoritative Influence

Supplementary Material

Abstract: This supplementary material provides additional analyses and the tables and figures excluded from the main text, and survey questionnaire. For the references of the tables and figures, please also see the main text.

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A.1 Main Analyses

A.1.1 Empirical Specifications

Treating Group A as the omitted category, the main empirical specification is as follows.

$$\begin{aligned} Y_i^k &= \beta_1^k \text{GroupB1}_i + \beta_2^k \text{GroupB2}_i + \beta_3^k \text{GroupC1}_i + \beta_4^k \text{GroupC2}_i \\ &\quad + \beta_5^k \text{GroupD1}_i + \beta_6^k \text{GroupD2}_i + \beta_7^k \text{Above\_Median}_i + X_i' \Gamma^k + \phi_p^k + \varepsilon_i^k, \end{aligned} \tag{1}$$

where i denotes individuals and Y_i^k is the outcome $k \in \{1,2,3\}$. The outcome variables are individuals' outing time from the post-treatment surveys, total outing time ($k = 1$), time spent on unnecessary activities ($k = 2$), and time spent on necessary activities ($k = 3$).[1] $GroupB1_i$ ($GroupB2_i$) is an indicator meaning that those subjects were in Group B and that their outing time in Week 1 was above (below or equal to) the median value for the prefecture, $GroupC1_i$ ($GroupC2_i$) is an indicator meaning that those subjects were in Group C and that their outing time in Week 1 was above (below or equal to) the median value for the prefecture, $GroupD1_i$ ($GroupD2_i$) is an indicator meaning that those subjects were in Group D and that their outing time in Week 1 was above (below or equal to) the median value for the prefecture, $Above\_Median_i$ is an indicator of above-median outing time, X_i is a vector consisting of outing time in Week 1 and an indicator of a negative income shock, ϕ_p^k is the prefecture fixed effects, and ε_i^k is the error term. Group C is split into Groups C1 and C2 despite the fact that this group received the same treatment. In addition, $Above\_Median_i$ is included in the regression. These imply that each parameter β_j^k for $j \in \{1,3,5\}$ is the

[1] Results on intentions are reported in Section A.2.1.

difference in the outcome between the above-median group in Group A and the above-median group in each group (Groups B, C, and D). Similarly, the parameter β_j^k for $j \in \{2,4,6\}$ is the difference in the outcome between the below-or-equal-median group in Group A and the below-or-equal-median group in each group (Groups B, C, and D). Finally, robust standard errors are used to account for heteroscedasticity.

To facilitate comparisons of the treatment effects, regression results where Group B or Group C is treated as the omitted category are also shown.

A.1.2 Results on Outing Behaviors

Table A.7 shows the regression results. The results are summarized in Table 1 in the main text.

A.2 Additional Analyses

A.2.1 Results on Intentions

In addition to the measures of outing time, the intention to refrain from outings was obtained in the survey on April 23. The question read: "Going forward, to what extent will you refrain from leaving your house?"[2] Table A.13 shows the ordinary least squares estimates for the intention to refrain from outings and Table A.14 summarizes the results.

One striking result in Table A.14 is that the respondents showed opposing intentions to messages that asked for cooperation with social distancing measures, particularly when they

[2] Respondents answered using a Likert scale ranging from one to seven, where seven means the greatest intention to cooperate. In the following analyses, to ease the understanding of readers, the order of the scale is reversed (smaller values mean greater intention to cooperate, just as the case of the behavioral measures of outing time).

included feedback information on the social norms.[3] This tendency does not depend on the baseline outing time or type of messenger. As such, the results show a sharp contrast to those studies using intentions as the main outcome variables, such as Jordan et al. (2020). Although the interpretation of the unexpected results is difficult, it is argued that they occurred because of participants' resistance to answer a survey question immediately after the information manipulations. As shown in the main text, however, they changed their outing behaviors to cooperate with social distancing rules. Since behaviors matter more for the spread of infectious diseases than intentions, this study focuses on outing behaviors.

[3] The effects are 6–10 percent of the control mean (see Table A.14), which is close to that of Jordan et al. (2020), who found that a message treatment that emphasizes the public benefits of prevention behaviors increased prevention intentions by 5–11 percent.

A.3 Tables and Figures

Table A.1: Summary Statistics

	Mean	Std	Min	p10	p50	p90	Max	N
A. Outcomes								
Week 1	186.68	277.19	0.00	0.00	90.00	548.00	2475.00	2868
Week 1 (unnec.)	44.16	127.02	0.00	0.00	0.00	120.00	1740.00	2868
Week 2	184.50	278.16	0.00	0.00	80.00	540.00	2880.00	2868
Week 2 (unnec.)	40.35	118.68	0.00	0.00	0.00	120.00	2160.00	2868
Week 3	194.07	294.36	0.00	0.00	90.00	570.00	2880.00	2868
Week 3 (unnec.)	43.22	124.22	0.00	0.00	0.00	120.00	2600.00	2868
Week 2 & 3	378.57	526.57	0.00	0.00	180.00	1020.00	5760.00	2868
Week 2 & 3 (unnec.)	83.56	204.17	0.00	0.00	0.00	270.00	2600.00	2868
Intention	2.36	1.07	1.00	1.00	2.00	4.00	7.00	2868
B. Treatment dummies								
GroupA	0.26	0.44	0.00	0.00	0.00	1.00	1.00	2868
GroupB	0.25	0.43	0.00	0.00	0.00	1.00	1.00	2868
GroupC	0.25	0.43	0.00	0.00	0.00	1.00	1.00	2868
GroupD	0.25	0.43	0.00	0.00	0.00	1.00	1.00	2868
C. Covariates								
male	0.51	0.50	0.00	0.00	1.00	1.00	1.00	2868
20s	0.21	0.40	0.00	0.00	0.00	1.00	1.00	2868
30s	0.24	0.42	0.00	0.00	0.00	1.00	1.00	2868
40s	0.31	0.46	0.00	0.00	0.00	1.00	1.00	2868
50s	0.25	0.43	0.00	0.00	0.00	1.00	1.00	2868
junior high	0.01	0.11	0.00	0.00	0.00	0.00	1.00	2868
high school	0.20	0.40	0.00	0.00	0.00	1.00	1.00	2868
college	0.19	0.40	0.00	0.00	0.00	1.00	1.00	2868
undergrads, grads	0.59	0.49	0.00	0.00	1.00	1.00	1.00	2868
married	0.52	0.50	0.00	0.00	1.00	1.00	1.00	2868
per capita income (1,000 JPY)	3002.40	2760.29	214.29	1000.00	2333.33	5000.00	60000.00	2868
negative income shock	0.16	0.37	0.00	0.00	0.00	1.00	1.00	2868
Saitama	0.13	0.34	0.00	0.00	0.00	1.00	1.00	2868
Chiba	0.12	0.33	0.00	0.00	0.00	1.00	1.00	2868
Tokyo	0.31	0.46	0.00	0.00	0.00	1.00	1.00	2868
Kanagawa	0.17	0.38	0.00	0.00	0.00	1.00	1.00	2868
Osaka	0.13	0.34	0.00	0.00	0.00	1.00	1.00	2868
Hyogo	0.08	0.27	0.00	0.00	0.00	0.00	1.00	2868
Fukuoka	0.05	0.22	0.00	0.00	0.00	0.00	1.00	2868
D. Personality traits								
social pref.	0.00	1.00	−0.64	−0.64	−0.64	1.34	3.32	2868
herd	0.00	1.00	−2.11	−1.40	0.01	1.42	2.12	2868
national	0.00	1.00	−2.48	−1.14	0.19	1.52	1.52	2868
time pref.	0.00	1.00	−3.52	−1.53	0.45	0.45	0.45	2868
pessimistic	0.07	0.25	0.00	0.00	0.00	0.00	1.00	2868
poli. eval.	0.00	1.00	−1.41	−1.41	−0.09	1.24	2.56	2868
poli. int.	0.00	1.00	−2.32	−1.67	0.27	1.57	1.57	2868
poli. pref.	0.00	1.00	−3.77	−0.82	−0.08	1.40	3.61	2868
religious	0.00	1.00	−1.08	−1.08	−0.47	1.36	2.58	2868
risk pref.	0.00	1.00	−0.70	−0.70	−0.70	1.03	2.77	2868

Table A.2: Balance Checks

	(1) Group A	(2) Group B	(3) Group C	(4) Group D	(1) vs. (2)	(1) vs. (3)	(1) vs. (4)
A. Outcomes							
Week 1	184.034	197.523	185.888	179.140	0.363	0.898	0.734
	(10.197)	(10.752)	(10.281)	(10.167)			
Week 1 (unnec.)	47.524	43.107	44.601	41.315	0.526	0.682	0.372
	(5.342)	(4.451)	(4.682)	(4.410)			
B. Covariates							
male	0.529	0.485	0.491	0.515	0.094	0.144	0.583
	(0.018)	(0.019)	(0.019)	(0.019)			
20s	0.221	0.191	0.202	0.211	0.163	0.384	0.636
	(0.015)	(0.015)	(0.015)	(0.015)			
30s	0.225	0.245	0.235	0.239	0.360	0.662	0.531
	(0.015)	(0.016)	(0.016)	(0.016)			
40s	0.312	0.320	0.304	0.284	0.744	0.733	0.244
	(0.017)	(0.017)	(0.017)	(0.017)			
50s	0.241	0.243	0.259	0.266	0.956	0.447	0.287
	(0.016)	(0.016)	(0.016)	(0.017)			
junior high	0.015	0.014	0.008	0.013	0.856	0.252	0.712
	(0.004)	(0.004)	(0.003)	(0.004)			
high school	0.199	0.194	0.205	0.202	0.810	0.780	0.884
	(0.015)	(0.015)	(0.015)	(0.015)			
college	0.206	0.194	0.205	0.173	0.573	0.966	0.106
	(0.015)	(0.015)	(0.015)	(0.014)			
undergrads, grads	0.580	0.598	0.581	0.612	0.487	0.953	0.207
	(0.018)	(0.018)	(0.019)	(0.018)			
married	0.505	0.542	0.519	0.499	0.152	0.587	0.835
	(0.018)	(0.019)	(0.019)	(0.019)			
per capita income (1,000 JPY)	3043.046	2971.571	2946.698	3047.407	0.582	0.503	0.976
	(90.842)	(92.664)	(112.145)	(115.649)			
negative income shock	0.139	0.153	0.182	0.178	0.469	0.025	0.042
	(0.013)	(0.013)	(0.015)	(0.014)			
Saitama	0.128	0.133	0.137	0.119	0.781	0.617	0.587
	(0.012)	(0.013)	(0.013)	(0.012)			
Chiba	0.130	0.119	0.124	0.107	0.551	0.770	0.195
	(0.012)	(0.012)	(0.012)	(0.012)			
Tokyo	0.315	0.301	0.294	0.320	0.559	0.388	0.854
	(0.017)	(0.017)	(0.017)	(0.018)			
Kanagawa	0.172	0.172	0.173	0.174	0.996	0.973	0.917
	(0.014)	(0.014)	(0.014)	(0.014)			
Osaka	0.127	0.123	0.150	0.139	0.843	0.205	0.512
	(0.012)	(0.012)	(0.013)	(0.013)			
Hyogo	0.082	0.086	0.076	0.085	0.776	0.701	0.836
	(0.010)	(0.010)	(0.010)	(0.010)			
Fukuoka	0.046	0.065	0.045	0.057	0.118	0.919	0.382
	(0.008)	(0.009)	(0.008)	(0.009)			
N	733	721	707	707			

Note. Standard errors are in parentheses. The last three columns show p-values.

Table A.3: Balance Checks (Above Median)

	(1) Group A	(2) Group B	(3) Group C	(4) Group D	(1) vs. (2)	(1) vs. (3)	(1) vs. (4)
A. Outcomes							
Week 1	371.084	382.336	365.428	347.791	0.651	0.818	0.343
	(17.533)	(17.662)	(17.119)	(17.199)			
Week 1 (unnec.)	99.700	85.699	90.361	83.546	0.319	0.519	0.252
	(11.078)	(8.708)	(9.329)	(8.727)			
B. Covariates							
male	0.586	0.522	0.563	0.510	0.095	0.561	0.051
	(0.027)	(0.027)	(0.027)	(0.027)			
20s	0.168	0.162	0.160	0.176	0.838	0.767	0.786
	(0.021)	(0.020)	(0.020)	(0.021)			
30s	0.228	0.246	0.247	0.251	0.579	0.570	0.496
	(0.023)	(0.023)	(0.024)	(0.024)			
40s	0.330	0.377	0.295	0.290	0.206	0.329	0.255
	(0.026)	(0.026)	(0.025)	(0.025)			
50s	0.273	0.214	0.298	0.284	0.075	0.478	0.767
	(0.024)	(0.022)	(0.025)	(0.025)			
junior high	0.021	0.012	0.003	0.015	0.332	0.033	0.554
	(0.008)	(0.006)	(0.003)	(0.007)			
high school	0.195	0.206	0.202	0.173	0.731	0.831	0.463
	(0.022)	(0.022)	(0.022)	(0.021)			
college	0.204	0.183	0.193	0.170	0.477	0.712	0.260
	(0.022)	(0.021)	(0.022)	(0.021)			
undergrads, grads	0.580	0.600	0.602	0.642	0.590	0.550	0.099
	(0.027)	(0.026)	(0.027)	(0.026)			
married	0.583	0.583	0.608	0.567	0.999	0.498	0.687
	(0.027)	(0.027)	(0.027)	(0.027)			
per capita income (1,000 JPY)	3205.831	2892.723	2879.547	3261.226	0.076	0.073	0.830
	(146.879)	(99.620)	(106.353)	(210.773)			
negative income shock	0.141	0.139	0.184	0.167	0.940	0.137	0.352
	(0.019)	(0.019)	(0.021)	(0.020)			
Saitama	0.135	0.139	0.151	0.119	0.880	0.569	0.543
	(0.019)	(0.019)	(0.020)	(0.018)			
Chiba	0.135	0.122	0.117	0.093	0.603	0.494	0.083
	(0.019)	(0.018)	(0.018)	(0.016)			
Tokyo	0.315	0.299	0.328	0.325	0.637	0.720	0.781
	(0.026)	(0.025)	(0.026)	(0.026)			
Kanagawa	0.174	0.177	0.172	0.176	0.928	0.933	0.947
	(0.021)	(0.021)	(0.021)	(0.021)			
Osaka	0.135	0.110	0.123	0.161	0.322	0.655	0.344
	(0.019)	(0.017)	(0.018)	(0.020)			
Hyogo	0.060	0.096	0.066	0.084	0.085	0.743	0.240
	(0.013)	(0.016)	(0.014)	(0.015)			
Fukuoka	0.045	0.058	0.042	0.042	0.448	0.856	0.837
	(0.011)	(0.013)	(0.011)	(0.011)			
N	333	345	332	335			

Note. Standard errors are in parentheses. The last four columns show p-values.

Table A.4: Balance Checks (Below or Equal Median)

	(1) Group A	(2) Group B	(3) Group C	(4) Group D	(1) vs. (2)	(1) vs. (3)	(1) vs. (4)
A. Outcomes							
Week 1	28.315	27.947	26.936	27.263	0.878	0.559	0.659
	(1.693)	(1.686)	(1.632)	(1.667)			
Week 1 (unnec.)	4.088	4.027	4.088	3.285	0.954	1.000	0.392
	(0.712)	(0.766)	(0.690)	(0.598)			
B. Covariates							
male	0.482	0.452	0.427	0.519	0.397	0.119	0.314
	(0.025)	(0.026)	(0.026)	(0.026)			
20s	0.265	0.218	0.240	0.242	0.128	0.424	0.463
	(0.022)	(0.021)	(0.022)	(0.022)			
30s	0.223	0.245	0.224	0.228	0.466	0.960	0.842
	(0.021)	(0.022)	(0.022)	(0.022)			
40s	0.297	0.269	0.312	0.280	0.373	0.662	0.583
	(0.023)	(0.023)	(0.024)	(0.023)			
50s	0.215	0.269	0.224	0.250	0.081	0.763	0.250
	(0.021)	(0.023)	(0.022)	(0.022)			
junior high	0.010	0.016	0.013	0.011	0.463	0.666	0.918
	(0.005)	(0.006)	(0.006)	(0.005)			
high school	0.203	0.184	0.208	0.228	0.504	0.850	0.380
	(0.020)	(0.020)	(0.021)	(0.022)			
college	0.207	0.205	0.216	0.175	0.926	0.773	0.248
	(0.020)	(0.021)	(0.021)	(0.020)			
undergrads, grads	0.580	0.596	0.563	0.586	0.657	0.627	0.866
	(0.025)	(0.025)	(0.026)	(0.026)			
married	0.440	0.505	0.440	0.438	0.069	1.000	0.959
	(0.025)	(0.026)	(0.026)	(0.026)			
per capita income (1,000 JPY)	2907.527	3043.918	3006.149	2854.855	0.468	0.650	0.739
	(112.685)	(152.418)	(189.411)	(110.199)			
negative income shock	0.138	0.165	0.181	0.188	0.287	0.095	0.056
	(0.017)	(0.019)	(0.020)	(0.020)			
Saitama	0.122	0.128	0.125	0.118	0.828	0.905	0.857
	(0.016)	(0.017)	(0.017)	(0.017)			
Chiba	0.125	0.117	0.131	0.121	0.734	0.814	0.865
	(0.017)	(0.017)	(0.017)	(0.017)			
Tokyo	0.315	0.303	0.264	0.315	0.722	0.118	0.988
	(0.023)	(0.024)	(0.023)	(0.024)			
Kanagawa	0.170	0.168	0.173	0.172	0.928	0.902	0.940
	(0.019)	(0.019)	(0.020)	(0.020)			
Osaka	0.120	0.136	0.173	0.118	0.515	0.036	0.941
	(0.016)	(0.018)	(0.020)	(0.017)			
Hyogo	0.100	0.077	0.085	0.086	0.264	0.483	0.505
	(0.015)	(0.014)	(0.014)	(0.015)			
Fukuoka	0.048	0.072	0.048	0.070	0.152	0.974	0.185
	(0.011)	(0.013)	(0.011)	(0.013)			
N	400	376	375	372			

Note. Standard errors are in parentheses. The last four columns show p-values.

Table A.5: Attrition Checks

	Dependent variable: Attrition			
	(1) OLS	(2) OLS	(3) Logit	(4) Logit
GroupB	0.013	0.014	0.205	0.220
	(0.013)	(0.013)	(0.195)	(0.196)
GroupC	0.021	0.022	0.317	0.324
	(0.013)*	(0.013)*	(0.190)*	(0.191)*
GroupD	0.014	0.014	0.214	0.221
	(0.013)	(0.012)	(0.194)	(0.195)
male		−0.005		−0.068
		(0.010)		(0.139)
20s		0.069		0.975
		(0.016)***		(0.219)***
30s		0.024		0.417
		(0.012)**		(0.218)*
40s		0.020		0.347
		(0.011)*		(0.206)*
junior high		0.040		0.482
		(0.047)		(0.491)
high school		0.006		0.092
		(0.012)		(0.176)
college		0.012		0.171
		(0.013)		(0.179)
married		0.011		0.161
		(0.010)		(0.150)
per capita income (1,000 JPY)		0.000		0.000
		(0.000)		(0.000)
negative income shock		0.010		0.136
		(0.013)		(0.176)
Saitama		0.001		0.021
		(0.025)		(0.316)
Chiba		−0.020		−0.287
		(0.024)		(0.339)
Tokyo		−0.003		−0.028
		(0.023)		(0.291)
Kanagawa		−0.009		−0.109
		(0.024)		(0.311)
Osaka		−0.026		−0.395
		(0.024)		(0.336)
Hyogo		−0.011		−0.139
		(0.027)		(0.353)
R^2	0.00	0.01		
N	3305	3305	3305	3305

Note. Robust standard errors are in parentheses, except for the last two columns, which use conventional standard errors. Columns (1) and (2) use the ordinary least squares regression, while Columns (3) and (4) use the logistic regression. Group A was set as the baseline. See the main text for the definition of each group. The indicators for 50-59 years old, the highest level of education being university graduate or post-graduate, and Fukuoka Prefecture were the baselines. *, **, and *** indicate $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively.

Table A.6: Attrition by Group

	Remained	Attrited	Total
Group A	778	52	830
Group B	756	62	818
Group C	763	70	833
Group D	761	63	824
N	3058	247	3305

Note. The number of people who remained in and attrited from the experiment in each group is shown.

Table A.7: Treatment Effects on Outing Behaviors

	Dependent variable: Outing time (min)								
	(1) Total	(2) Unnec.	(3) Nec.	(4) Total	(5) Unnec.	(6) Nec.	(7) Total	(8) Unnec.	(9) Nec.
GroupA1				53.430	9.662	43.768	28.993	−19.409	48.402
				(34.844)	(19.921)	(35.211)	(35.110)	(20.327)	(35.176)
GroupA2				−7.601	9.035	−16.635	23.531	9.241	14.289
				(24.529)	(10.169)	(20.623)	(16.672)	(9.024)	(11.798)
GroupB1	−53.430	−9.662	−43.768				−24.437	−29.070	4.634
	(34.844)	(19.921)	(35.211)				(34.378)	(20.528)	(32.533)
GroupB2	7.601	−9.035	16.635				31.131	0.207	30.924
	(24.529)	(10.169)	(20.623)				(21.579)	(7.939)	(19.332)
GroupC1	−28.993	19.409	−48.402	24.437	29.070	−4.634			
	(35.110)	(20.327)	(35.176)	(34.378)	(20.528)	(32.533)			
GroupC2	−23.531	−9.241	−14.289	−31.131	−0.207	−30.924			
	(16.672)	(9.024)	(11.798)	(21.579)	(7.939)	(19.332)			
GroupD1	−36.277	−22.473	−13.803	17.154	−12.811	29.965	−7.283	−41.882	34.599
	(35.761)	(18.731)	(36.101)	(35.210)	(18.977)	(33.899)	(35.611)	(19.413)**	(34.063)
GroupD2	27.241	−5.257	32.498	19.641	3.778	15.863	50.772	3.985	46.787
	(20.763)	(9.918)	(16.904)*	(25.000)	(8.859)	(22.963)	(17.469)***	(7.502)	(15.671)***
above median	70.777	55.178	15.598	9.746	54.551	−44.805	65.314	83.828	−18.514
	(29.987)**	(17.782)***	(27.467)	(33.448)	(19.406)***	(32.583)	(29.564)**	(17.067)***	(29.240)
controls	yes	yes	yes	yes	yes	yes	yes	yes	yes
Omitted group:	Group A			Group B			Group C		
Control mean (std):									
Omitted group ×	665.018	140.108	524.910	626.759	131.362	495.397	629.898	159.295	470.602
above median	(670.844)	(262.098)	(644.971)	(608.149)	(262.677)	(575.567)	(562.542)	(272.911)	(511.862)
Omitted group ×	155.333	42.745	112.588	161.824	33.963	127.862	129.403	33.523	95.880
below or equal	(286.568)	(153.679)	(195.132)	(387.995)	(126.499)	(352.823)	(177.581)	(85.229)	(142.165)
R^2	0.49	0.08	0.44	0.49	0.08	0.44	0.49	0.08	0.44
N	2868	2868	2868	2868	2868	2868	2868	2868	2868

Note. Robust standard errors are in parentheses. The table shows the ordinary least squares regression estimates for the empirical specifications explained in Section A.1.1. *GroupA1* (*GroupA2*) is an indicator meaning that those subjects were in Group A and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupB1* (*GroupB2*) is an indicator meaning that those subjects were in Group B and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupC1* (*GroupC2*) indicates that those subjects were in Group C and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupD1* (*GroupD2*) indicates that those subjects were in Group D and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. See the main text for the definition of each group. Control variables are outing time in Week 1, an indicator of a negative income shock, and the prefecture fixed effects. *, **, and *** indicate $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively.

Table A.8: Treatment Effects on Outing Behaviors (Additional Controls)

	Dependent variable: Outing time (min)								
	(1) Total	(2) Unnec.	(3) Nec.	(4) Total	(5) Unnec.	(6) Nec.	(7) Total	(8) Unnec.	(9) Nec.
GroupA1				51.690	10.308	41.382	28.338	−17.940	46.279
				(34.607)	(20.003)	(34.918)	(35.081)	(20.342)	(35.173)
GroupA2				−3.277	9.730	−13.007	25.562	9.284	16.278
				(24.742)	(10.159)	(20.893)	(16.684)	(9.046)	(11.833)
GroupB1	−51.690	−10.308	−41.382				−23.352	−28.248	4.896
	(34.607)	(20.003)	(34.918)				(34.413)	(20.692)	(32.598)
GroupB2	3.277	−9.730	13.007				28.839	−0.446	29.284
	(24.742)	(10.159)	(20.893)				(21.902)	(7.968)	(19.690)
GroupC1	−28.338	17.940	−46.279	23.352	28.248	−4.896			
	(35.081)	(20.342)	(35.173)	(34.413)	(20.692)	(32.598)			
GroupC2	−25.562	−9.284	−16.278	−28.839	0.446	−29.284			
	(16.684)	(9.046)	(11.833)	(21.902)	(7.968)	(19.690)			
GroupD1	−34.724	−23.078	−11.646	16.966	−12.770	29.736	−6.386	−41.018	34.633
	(35.681)	(18.704)	(35.916)	(34.920)	(19.049)	(33.496)	(35.520)	(19.374)**	(33.935)
GroupD2	24.965	−5.653	30.617	21.688	4.077	17.610	50.527	3.632	46.895
	(20.445)	(9.872)	(16.573)*	(25.075)	(8.859)	(23.051)	(17.221)***	(7.488)	(15.436)***
above median	60.146	54.050	6.096	5.178	53.471	−48.293	57.369	81.274	−23.905
	(30.143)**	(17.854)***	(27.502)	(33.857)	(19.506)***	(32.881)	(29.635)*	(17.133)***	(29.436)
controls	yes	yes	yes	yes	yes	yes	yes	yes	yes
Omitted group:	Group A			Group B			Group C		
Control mean (std):									
Omitted group × above median	665.018 (670.844)	140.108 (262.098)	524.910 (644.971)	626.759 (608.149)	131.362 (262.677)	495.397 (575.567)	629.898 (562.542)	159.295 (272.911)	470.602 (511.862)
Omitted group × below or equal	155.333 (286.568)	42.745 (153.679)	112.588 (195.132)	161.824 (387.995)	33.963 (126.499)	127.862 (352.823)	129.403 (177.581)	33.523 (85.229)	95.880 (142.165)
R^2	0.49	0.08	0.45	0.49	0.08	0.45	0.49	0.08	0.45
N	2868	2868	2868	2868	2868	2868	2868	2868	2868

Note. Robust standard errors are in parentheses. The table shows the ordinary least squares regression estimates for the empirical specifications explained in Section A.1.1. *GroupA1* (*GroupA2*) is an indicator meaning that those subjects were in Group A and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupB1* (*GroupB2*) is an indicator meaning that those subjects were in Group B and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupC1* (*GroupC2*) indicates that those subjects were in Group C and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupD1* (*GroupD2*) indicates that those subjects were in Group D and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. See the main text for the definition of each group. Control variables are outing time in Week 1, age dummies (20s, 30s, and 40s), an indicator that the last education is junior high school, an indicator of a negative income shock, and the prefecture fixed effects. *, **, and *** indicate $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively.

Table A.9: Summary of the Treatment Effects (Additional Controls)

	Outcome variable:								
	Total outing time			Unnecessary outing time			Necessary outing time		
	Effect (in mins)	**95% CI**	p	**Effect (in mins)**	**95% CI**	p	**Effect (in mins)**	**95% CI**	p
(1) Effect of social comparison (PM & above, Group B1 - A1)	-51.69	[-119.55, 16.17]	0.14	-10.31	[-49.53, 28.91]	0.61	-41.38	[-109.85, 27.09]	0.24
(2) Effect of social comparison (PM & below, Group B2 - A2)	3.28	[-45.24, 51.79]	0.90	-9.73	[-29.65, 10.19]	0.34	13.01	[-27.96, 53.98]	0.53
(3) Effect of social comparison (Emperor & above, Group D1 - C1)	-6.39	[-76.03, 63.26]	0.86	-41.02	[-79.01, -3.03]	0.03	34.63	[-31.91, 101.17]	0.31
(4) Effect of social comparison (Emperor & below, Group D2 - C2)	50.53	[16.76, 84.29]	<0.01	3.63	[-11.05, 18.31]	0.63	46.90	[16.63, 77.16]	<0.01
(5) Effect of messenger (No comparison & above, Group C1 - A1)	-28.34	[-97.13, 40.45]	0.42	17.94	[-21.95, 57.83]	0.38	-46.28	[-115.25, 22.69]	0.19
(6) Effect of messenger (No comparison & below, Group C2 - A2)	-25.56	[-58.28, 7.15]	0.13	-9.28	[-27.02, 8.45]	0.31	-16.28	[-39.48, 6.93]	0.17
(7) Effect of messenger (Comparison & above, Group D1 - B1)	16.97	[-51.50, 85.44]	0.63	-12.77	[-50.12, 24.58]	0.50	29.74	[-35.94, 95.42]	0.38
(8) Effect of messenger (Comparison & below, Group D2 - B2)	21.69	[-27.48, 70.85]	0.39	4.08	[-13.29, 21.45]	0.65	17.61	[-27.59, 62.81]	0.45

Note. Robust standard errors were used to compute the confidence intervals and p-values. Control variables are outing time in Week 1, an indicator of a negative income shock, and the prefecture fixed effects. For the values for the first and second rows, the estimation results in Columns (1), (2), and (3) of Table A.8 were used. For the values for the third and fourth rows, the estimation results in Columns (7), (8), and (9) of the same table were used. For the values for the fifth and sixth rows, the estimation results in Columns (1), (2), and (3) of Table A.8 were used. The estimation results in Columns (4), (5), and (6) of the same table were used for the values for the seventh and eighth rows. See Figure 2 for the definition of each group.

Table A.10: Balance Checks (Screenshots vs. No Screenshots, Sample is Restricted to Those Who Are Willing to Provide Screenshots)

	(1) Screenshots	(2) No Screenshots	(1) vs. (2)
A. Outcomes			
Week 1	219.155	203.600	0.607
	(30.987)	(13.570)	
Week 1 (unnec.)	53.698	57.968	0.779
	(10.790)	(7.558)	
B. Covariates			
male	0.448	0.445	0.950
	(0.046)	(0.025)	
20s	0.224	0.155	0.082
	(0.039)	(0.018)	
30s	0.345	0.310	0.479
	(0.044)	(0.023)	
40s	0.310	0.297	0.791
	(0.043)	(0.023)	
50s	0.121	0.237	0.007
	(0.030)	(0.021)	
junior high	0.000	0.015	0.185
	(0.000)	(0.006)	
high school	0.112	0.152	0.275
	(0.029)	(0.018)	
college	0.164	0.193	0.485
	(0.035)	(0.020)	
undergrads, grads	0.724	0.640	0.093
	(0.042)	(0.024)	
married	0.612	0.632	0.689
	(0.045)	(0.024)	
per capita income (1,000 JPY)	3241.523	3253.458	0.958
	(165.523)	(110.613)	
negative income shock	0.198	0.165	0.405
	(0.037)	(0.019)	
N	116	400	

Note. Standard errors are in parentheses. The last three columns show p-values.

Table A.11: Balance Checks (Screenshots vs. No Screenshots, All Sample)

	(1) Screenshots	(2) No Screenshots	(1) vs. (2)
A. Outcomes			
Week 1	219.155	185.307	0.198
	(30.987)	(5.233)	
Week 1 (unnec.)	53.698	43.761	0.409
	(10.790)	(2.430)	
B. Covariates			
male	0.448	0.508	0.211
	(0.046)	(0.010)	
20s	0.224	0.206	0.630
	(0.039)	(0.008)	
30s	0.345	0.231	0.005
	(0.044)	(0.008)	
40s	0.310	0.305	0.907
	(0.043)	(0.009)	
50s	0.121	0.258	0.001
	(0.030)	(0.008)	
junior high	0.000	0.013	0.215
	(0.000)	(0.002)	
high school	0.112	0.204	0.016
	(0.029)	(0.008)	
college	0.164	0.196	0.393
	(0.035)	(0.008)	
undergrads, grads	0.724	0.587	0.003
	(0.042)	(0.009)	
married	0.612	0.512	0.035
	(0.045)	(0.010)	
per capita income (1,000 JPY)	3241.523	2992.322	0.341
	(165.523)	(53.256)	
negative income shock	0.198	0.161	0.291
	(0.037)	(0.007)	
N	116	2752	

Note. Standard errors are in parentheses. The last three columns show *p*-values.

Table A.12: Treatment Effects on Outing Behaviors Using Screenshots

	Dependent variable: Distance travelled (km)	
	(1) Level	(2) Log
Feedback (pooled) × above median	−1.539	−0.246
	(2.804)	(0.167)
Feedback (pooled) × below or equal	−0.311	0.145
	(1.749)	(0.360)
above median	1.747	0.924
	(2.807)	(0.253)***
controls	yes	yes
Control mean (std):		
No feedback (pooled) × above median	16.249	2.419
	(19.791)	(0.810)
No feedback (pooled) × below or equal	8.888	1.301
	(16.600)	(1.464)
R^2	0.84	0.44
N	116	116

Note. Robust standard errors are in parentheses. *Feedback (pooled) × above median* (*Feedback (pooled) × below or equal*) is an indicator meaning that those subjects were in Group B or D and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. Groups A and C were set as the baseline. See the main text for the definition of each group. Control variables are outing time in Week 1, an indicator of a negative income shock, and the prefecture fixed effects. *, **, and *** indicate $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively.

Table A.13: Treatment Effects on Intention

	Dependent variable: Intention		
	(1)	(2)	(3)
GroupA1		−0.147	−0.048
		(0.081)*	(0.084)
GroupA2		0.038	0.137
		(0.075)	(0.073)*
GroupB1	0.147		0.099
	(0.081)*		(0.081)
GroupB2	−0.038		0.098
	(0.075)		(0.070)
GroupC1	0.048	−0.099	
	(0.084)	(0.081)	
GroupC2	−0.137	−0.098	
	(0.073)*	(0.070)	
GroupD1	0.296	0.149	0.248
	(0.088)***	(0.086)*	(0.089)***
GroupD2	−0.006	0.033	0.131
	(0.073)	(0.069)	(0.068)*
above median	0.156	0.341	0.341
	(0.086)*	(0.082)***	(0.081)***
controls	yes	yes	yes
Omitted group:	Group A	Group B	Group C
Control mean (std):			
Omitted group × above median	2.486	2.638	2.533
	(1.074)	(1.028)	(1.100)
Omitted group × below or equal	2.180	2.141	2.040
	(1.107)	(0.976)	(0.937)
R^2	0.06	0.06	0.06
N	2868	2868	2868

Note. Robust standard errors are in parentheses. *GroupA1* (*GroupA2*) is an indicator meaning that those subjects were in Group A and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupB1* (*GroupB2*) is an indicator meaning that those subjects were in Group B and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupC1* (*GroupC2*) indicates that those subjects were in Group C and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. *GroupD1* (*GroupD2*) indicates that those subjects were in Group D and their outing time during Week 1 was above (below or equal to) the median value for the prefecture. See the main text for the definition of each group. Control variables are outing time in Week 1, an indicator of a negative income shock, and the prefecture fixed effects. *, **, and *** indicate $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively.

Table A.14: Summary of Treatment Effects on Intention

	Outcome variable: Intention		
	Effect	**95% CI**	p
(1) Effect of social comparison (PM & above, Group B1 - A1)	0.15	[-0.01, 0.31]	0.07
(2) Effect of social comparison (PM & below, Group B2 - A2)	-0.04	[-0.19, 0.11]	0.61
(3) Effect of social comparison (Emperor & above, Group D1 - C1)	0.25	[0.07, 0.42]	0.01
(4) Effect of social comparison (Emperor & below, Group D2 - C2)	0.13	[-0.00, 0.26]	0.05
(5) Effect of messenger (No comparison & above, Group C1 - A1)	0.05	[-0.12, 0.21]	0.56
(6) Effect of messenger (No comparison & below, Group C2 - A2)	-0.14	[-0.28, 0.01]	0.06
(7) Effect of messenger (Comparison & above, Group D1 - B1)	0.15	[-0.02, 0.32]	0.08
(8) Effect of messenger (Comparison & below, Group D2 - B2)	0.03	[-0.10, 0.17]	0.64

Note. Robust standard errors were used to compute the confidence intervals and p-values. Control variables are outing time in Week 1, an indicator of a negative income shock, and the prefecture fixed effects. For the values for the first and second rows, the estimation results in Column (1) of Table A.13 were used. For the values for the third and forth rows, the estimation results in Column (3) of the same table were used. For the values for the fifth and sixth rows, the estimation results in Column (1) of Table A.13 were used. The estimation results in Column (2) of the same table were used for the values for the seventh and eighth rows. See the main text for the definition of each group.

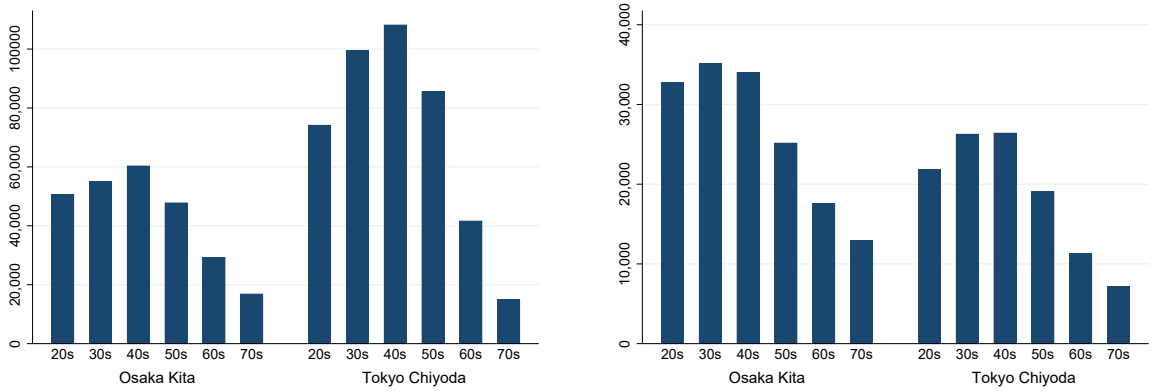
Table A.15: Variable Definition

Variable	Survey question	Scale (original)	Scale (final)	Expected direction	Source
initial beliefs (pessimistic)	Think back to the weekend of April 18, Saturday, and April 19, Sunday. Compared to others, to what extent did you refrain from leaving the house?	3 options (less/same/more)	Normalized	When subjects anticipate that their baseline outing time is longer than the social norm, they would be more sensitive to information feedback in the below median treatment.	Own
time preferences (time pref.)	Suppose you receive 10,000 yen. You can use it all straight away, or you can save it subject to the following rules. If you save it, after a year, you are guaranteed to receive twice the amount deposited. How much of that 10,000 yen would you save?	0-10,000 (continuous scale)	Normalized	When subjects are more patient, they would be more sensitive to information feedback in the above treatment.	Sutter et al. (2018); Falk et al. (2018)
risk preferences (risk pref.)	Suppose you receive 10,000 yen. You can use it as it is, or you can use it in a game of chance: When you participate in the game, there is a 50% chance you will lose the money you invest and a 50% chance that the value you invested will double. How much of that 10,000 yen would you use for this game?	0-10,000 (continuous scale)	Normalized	When subjects are risk averse, they would be more sensitive to information feedback in the above median treatment.	Sutter et al. (2018); Falk et al. (2018)
social preferences (social pref.)	Suppose you receive 10,000 yen. You can use this for yourself, or you can choose to share it with someone else. How much of that 10,000 yen would you share?	0-10,000 (continuous scale)	Normalized	When subjects are more altruistic, they would be more sensitive to information feedback in the above median treatment.	Sutter et al. (2018); Falk et al. (2018)
herd behaviors (herd)	How much do you care about the opinions and actions of others when deciding your own opinions and actions?	1 (I do not care at all)-7 (I care a lot)	Normalized	When subjects are more worried about others' opinions and actions, they would be more sensitive to information feedback in the above median treatment.	Yamada and Sato (2013)
religious beliefs (religious)	To what extent are you religious?	1 (Not at all)-7 (Very much)	Normalized	The effect of a message from the emperor is larger for those who are more religious.	ISSP (2023)
policy evaluations (poli. eval.)	How do you rate the policies of the current government?	1 (I rate it very poorly)-7 (I rate it very high)	Normalized	The effect of a message from the prime minister is smaller for those who are more skeptical about current policies.	UTokyo-Asahi (2023)
political interests (poli. int.)	How interested are you in politics?	1 (Not at all interested)-7 (Very interested)	Normalized	When subjects are more interested in politics, they would be more sensitive to information feedback in the above median treatment.	ISSP (2023); WVS (2023)
political preferences (poli. pref.)	In politics, we sometimes use the terms left-wing and right-wing. Where do you see yourself between 0 and 10, where 0 is extremely left-wing, and ten is extreme right-wing?	0 (extreme left-wing)-10 (extreme right-wing)	Normalized	The effect of a message from the emperor is larger for more rightist individuals.	ISSP (2023); WVS (2023)
national identity (national)	To what extent do you feel proud to live in Japan?	1 (I do not feel proud at all)-7 (I feel very proud)	Normalized	The effect of a message from the emperor is larger for those who have stronger national identity.	ISSP (2023)

Table A.16: Variable Definition (Other Variables)

Variable	**Survey question**	**Scale (original)**	**Scale (final)**
age	What is your age?	6 options (≤19/20s/30s/40s/50s/≥60)	2:20s, 3:30s, 4:40s, 5:50s
male	What is your gender?	3 options (male/female/other)	1:Male, 0:Otherwise
higher education	What is your highest level of education?	4 options (junior high/high school/college/undergraduate or graduate)	1:Undergraduate or graduate, 0:Otherwise
log per capita income	What was the annual income of your household (before tax) in 2019?	11 options (see the survey questionnaire for details)	Continuous scale. (For each interval, we used the mid-value (e.g., three million for the range "More than two million and less than four million yen"). For the categories "Under two million yen" and "More than 50 million yen," we employed values of 1.5 million and 60 million, respectively. Subsequently, these values were adjusted by dividing them by the number of household members. Finally, we took the natural logarithm of the resulting figures.)
labor force status (stay home)	What is your employment status?	8 options (see the survey questionnaire for details)	1:Self-employed or Full-time housewife/househusband or Other, 0:Otherwise
iPhone	What kind of smartphone or mobile phone are you currently using?	4 options (Android/iPhone/Other/Do not have a smartphone or mobile phone)	1:iPhone, 0:Otherwise

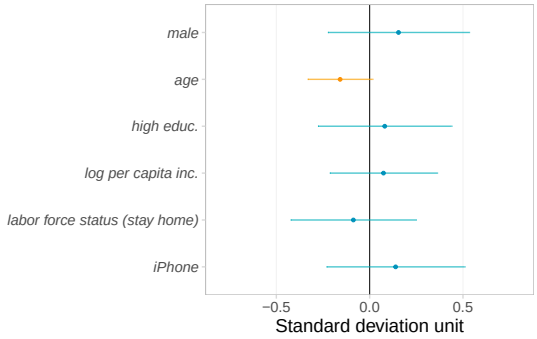
Figure A.1: Average visitors in Chiyoda District, Tokyo, and Kita District, Osaka at 2:00 PM in April 2020



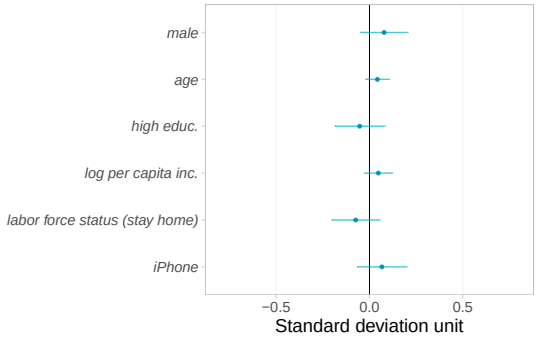
(a) Weekday (b) Weekend

Note. Average visitors in Chiyoda District, Tokyo, and Kita District, Osaka at 2:00 PM in April 2020 are shown. The Chiyoda District houses Tokyo Station, while the Kita District is home to Osaka Station. These numbers were sourced from the Ministry of Economy, Trade and Industry's Regional Economy Society Analyzing System (RESAS), which relies on data from Mobile Kukan Toukei provided by NTT DOCOMO, Inc. and DOCOMO InsightMarketing, Inc.: `https://resas.go.jp/tourism-ratio/#/graph/13/13101/0.0/2020/1/2020/1/14/-/-/9.588714635582264/35.6934037/139.6904231/-`.

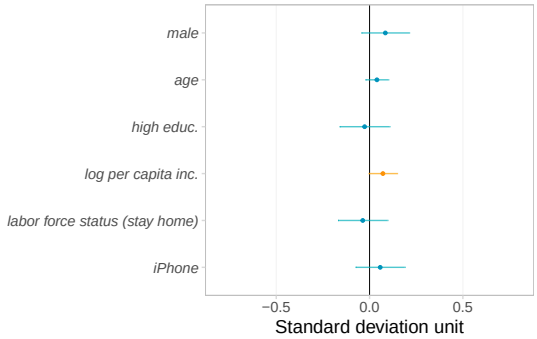
Figure A.2: Interaction Effects of Information Treatments with Objective Personality Traits



(a) Interaction with the Group D1 dummy on the Unnecessary Outing Time



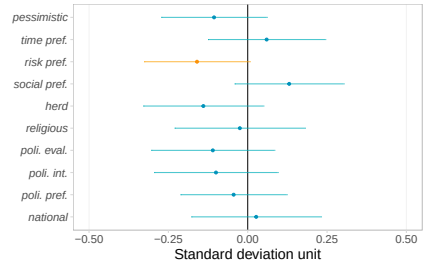
(b) Interaction with the Group D2 dummy on the Necessary Outing Time



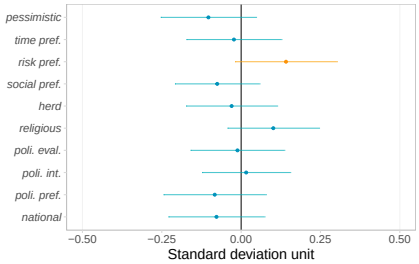
(c) Interaction with the Group D2 dummy on the Total Outing Time

Note. The unnecessary outing time (for (a)), the necessary outing time (for (b)), or the total outing time (for (c)) is regressed on treatment variables (Groups A1, A2, B1, B2, D1, and D2), the objective personality traits, the objective personality traits interacted with the treatment variables, the above median dummy, the objective personality traits interacted with the above median dummy, and control variables. The control variables are outing time in Week 1, an indicator of a negative income shock, and the prefecture fixed effects. The point estimates and the 95% CI of the interaction between the Group D1 dummy and the objective variables (for (a)) or the Group D2 dummy and the objective variables (for (b) and (c)) are shown. Robust standard errors were used to compute the confidence intervals. Group C1 was set as the baseline for (a), while Group C2 was set as the baseline for (b) and (c). See Table A.16 in the Supplementary Material for the definition of the objective personality traits.

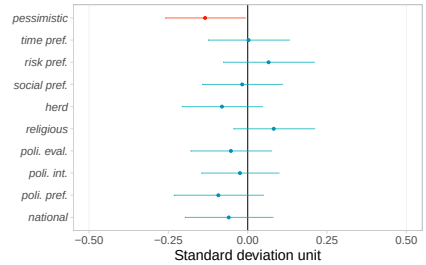
Figure A.3: Interaction Effects of Information Treatments with Personality Traits (Group A vs. Group B)



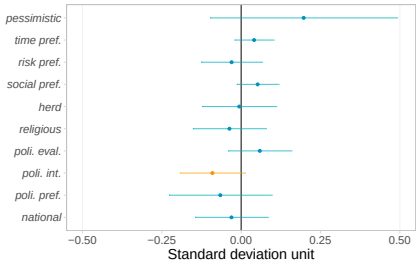
(a) Interaction with the Group B1 dummy on the Unnecessary Outing Time



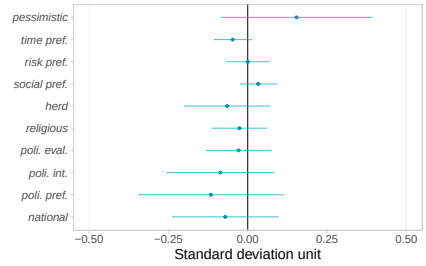
(b) Interaction with the Group B1 dummy on the Necessary Outing Time



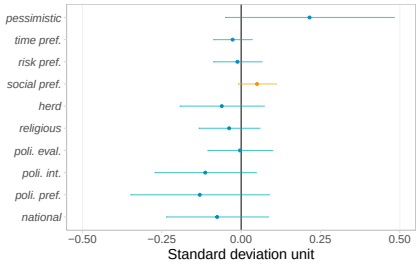
(c) Interaction with the Group B1 dummy on the Total Outing Time



(d) Interaction with the Group B2 dummy on the Unnecessary Outing Time



(e) Interaction with the Group B2 dummy on the Necessary Outing Time



(f) Interaction with the Group B2 dummy on the Total Outing Time

Note. The unnecessary outing time (for (a) and (d)), the necessary outing time (for (b) and (e)), or the total outing time (for (c) and (f)) is regressed on treatment variables (Groups B1, B2, C1, C2, D1, and D2), the personality traits, the personality traits interacted with the treatment variables, the above median dummy, the personality traits interacted with the above median dummy, and control variables. The control variables are outing time in Week 1, an indicator of a negative income shock, and the prefecture fixed effects. The point estimates and the 95% CI of the interaction between the Group B1 dummy and the personality traits (for (a), (b), and (c)) or the Group B2 dummy and the personality traits (for (d), (e), and (f)) are shown. Robust standard errors were used to compute the confidence intervals. Group A1 was set as the baseline for (a), (b), and (c), while Group A2 was set as the baseline for (d), (e), and (f). See Table A.15 in the Supplementary Material for the definition of the personality traits.

A.4 Survey Questionnaire

A.4.1 English-translated Version

Baseline Survey - April 17

Thank you for visiting this web survey.
This survey is being conducted jointly by Osaka University and Kindai University to understand the values, daily lifestyle choices, and behavioral patterns of people.

Your response will only be used for academic research and will not be used for any other purpose.
Additionally, this survey is anonymous, and thus, your privacy is protected.
The aim of the questionnaire is to understand people's real-life situation. We make no moral judgments based on the answers of right and wrong.
We request your understanding in this regard and hope you are comfortable while answering the following questions.

The survey will begin on April 17th, Friday.
Questionnaires will be provided at 9:00 pm on April 17th, Friday; April 18th, Saturday; April 19th, Sunday; April 23rd, Thursday; April 25th, Saturday; April 26th, Sunday; May 2nd, Saturday; and May 3rd, Sunday.

Twenty questions are asked in the questionnaire on April 17th, and we expect it will take about 10 minutes to complete. The surveys for the remaining seven days are simple questionnaires of 5 questions or less, and we assume that these will take no more than 5 minutes to complete.

We request that the materials distributed on April 23rd, Thursday, are completed before 11:59 pm April 24th, Friday.

This is a long-term survey conducted over three weeks; however, we ask participants to make every effort to respond to each questionnaire.

Next Back

Q1. What is your gender?

○ Male

○ Female

○ Other

Q2. What is your age?

○ 19 years old or younger

○ 20-29 years old

○ 30-39 years old

○ 40-49 years old

○ 50-59 years old

○ 60 years or older

Q3. What is your highest level of education?

○ Junior high school graduate

○ High school graduate

○ Junior college, technical college or vocational school graduate

○ University graduate or post-graduate

Q4. What is your marital status?

○ Married

○ Unmarried

○ Divorced/widowed

Q5. How many people are living in your household?

○ One person (Living alone)

○ Two people

○ Three people

○ Four people

○ Five people

○ Six people

○ Seven people or more

Q6. Please tell us the area in which you live.

Q7. What is your employment status?

○ Full-time staff/employee
○ Part-time
○ Temporary staff
○ Contract/commissioned employee
○ Self-employed
○ Full-time housewife/househusband
○ Student
○ Other （ ）

Q8. What was the annual income of your household (before tax) in 2019?

○ Under two million yen
○ More than two million and less than four million yen
○ More than four and less than six million yen
○ More than six and less than eight million yen
○ More than eight and less than ten million yen
○ More than ten and less than 12 million yen
○ More than 12 and less than 15 million yen
○ More than 15 and less than 20 million yen
○ More than 20 and less than 30 million yen
○ More than 30 and less than 50 million yen
○ More than 50 million yen

Q9. Think about the economic activities you and the members of your household have participated in over the past month.
Have there been any unusual fluctuations in your income?
Please detail the value of any increase or decrease in your income distinct from your regular income as recorded in question 8.
Please answer in units of 10,000 yen, rounded up to the nearest 1,000.

○ My income increased by （ ） yen
○ My income did not change
○ My income decreased by （ ） yen

Next Back

Q10. All things considered, how has your health been recently? Please choose one of the following options:

Not well at all　1　2　3　4　5　6　7　Very healthy

Next　Back

Q11. Suppose you receive 10,000 yen.

You can use it all straight away, or you can save it subject to the following rules.

If you save it, after a year, you are guaranteed to receive twice the amount deposited.

How much of that 10,000 yen would you save?

（　　）yen

Next　Back

Q12. Suppose you receive 10,000 yen.

You can use it as it is, or you can invest it in a game of chance:

When you participate in the game, there is a 50% chance you will lose the money you invest and a 50% chance that the value you invested will double.

How much of that 10,000 yen would you use for this game?

（　　）yen

Next　Back

Q13. Suppose you receive 10,000 yen.

You can use this for yourself, or you can choose to share it with someone else.

How much of that 10,000 yen would you share?

（　　）yen

Next　Back

Q14. How much do you care about the opinions and actions of others when deciding your own opinions and actions? Please choose one of the following options:
I do not care at all 1 2 3 4 5 6 7 I care a lot

Next Back

Q15. How interested are you in politics? Please choose one of the following options:
Not at all interested 1 2 3 4 5 6 7 Very interested

Next Back

Q16. In politics, we sometimes use the terms left-wing and right-wing.
Where do you see yourself between 0 and 10, where 0 is extremely left-wing, and ten is extreme right-wing? Please choose one of the following options:
Extreme left-wing 0 1 2 3 4 5 6 7 8 9 10 Extreme right-wing

Next Back

Q17. How do you rate the policies of the current government? Please choose one of the following options:
I rate it very poorly 1 2 3 4 5 6 7 I rate it very highly

Next Back

Q18. To what extent are you religious? Please choose one of the following options:

Not at all　1　2　3　4　5　6　7　Very much

Next　Back

Q19. To what extent do you feel proud to live in Japan? Please choose one of the following options:

I do not feel proud at all　1　2　3　4　5　6　7　I feel very proud

Next　Back

Q20. What kind of smartphone or mobile phone are you currently using?

* If you use more than one device, please tell us about your primary device.

* Please answer about your personal device, and not devices used for work.

○ Android

○ iPhone

○ Other smartphone or mobile phone

○ I do not have a smartphone or mobile phone

Answer　Back

Outing Time - April 18-May 3 (Weekend: this example is for April 18)

Q1. How much time did you spend outside your home on April 18th, Saturday? Please provide the total amount of time you spent outside of your home.

* If you did not leave your house, please answer "0 hours 0 minutes."

（　　）hours（　　）minutes

Q2. Of which, how much time in total did you spend outside your home on activities essential to daily life (e.g., shopping for daily necessities, traveling to school, traveling to work, traveling to the hospital, etc.)?

If you had more than one purpose for a single outing, please separate the time you spent for each and answer with the total amount of time spent on what you feel is necessary for daily life.

* If you only left your home for matters essential to daily life, please answer the same as in Q1.

（　　）hours（　　）minutes

Answer　Back

Intervention - April 23

(All groups)

As informed in the first survey, this survey is being conducted jointly by Osaka University and Kindai University to understand the values, daily lifestyle choices, and behavioral patterns of people.

Your response will only be used for academic research and will not be used for any other purpose.
Additionally, this survey is anonymous, and thus, your privacy is protected.
The aim of the questionnaire is to understand people's real-life situation. We make no moral judgments based on the answers of right and wrong.
We request your understanding in this regard and hope you are comfortable while answering the following questions.

Next

Q1. Think back to the weekend of April 18, Saturday, and April 19, Sunday.
Compared to others, to what extent did you refrain from leaving the house? Please choose from one of the following options.

○ I feel I spent less time out of the house than other people
○ I feel that I spent about the same amount of time out of the house as other people
○ I feel I spent more time out of the house than other people

Please read the next page carefully.

Next

(Group A)

It is now well-known that the spread of COVID-19 has become a social issue and is having a profound effect on our daily lives.

To resolve the situation, on April 7th, the government declared a state of emergency and made the following appeal,

"(omitting the beginning) we ask that the people of Japan, while continuing businesses necessary to maintain the functioning of society, refrain as much as possible from going outside."

Whether or not the challenge posed by COVID-19 will subside in the future depends on our actions as individuals.

Let us all work together to overcome this challenge.

-Image-

Next

(Group B: example of outing time is displayed for illustration)

It is now well-known that the spread of COVID-19 has become a social issue and is having a profound effect on our daily lives.

To resolve the situation, on April 7th, the government declared a state of emergency and made the following appeal,

"(omitting the beginning) we ask that the people of Japan, while continuing businesses necessary to maintain the functioning of society, refrain as much as possible from going outside."

Based on the results of the second and third surveys last week, we found that, among surveyed participants, the outing time of an individual who was half-way between the lowest value and the highest value (the median value) was 80 minutes.
Meanwhile, your time outside was 60 minutes.

Let us all work together to overcome this challenge.

-Image-

Next

(Group C)

It is now well-known that the spread of COVID-19 has become a social issue and is having a profound effect on our daily lives.

Previously, a statement issued by His Majesty the Emperor on March 22nd stated,

"(omitting the beginning) I am anxious about the spread of COVID-19, and am deeply concerned about the difficulties and hardships being faced by the people of Japan and several more around the world. I sincerely hope that the spread of this infection will come to a prompt end."

Whether or not the challenge posed by COVID-19 will subside in the future depends on our actions as individuals.

Let us all work together to overcome this challenge.

-Image-

Next

(Group D: example of outing time is displayed for illustration)

It is now well-known that the spread of COVID-19 has become a social issue and is having a profound effect on our daily lives.

Previously, a statement issued by His Majesty the Emperor on March 22nd stated,

"(omitting the beginning) I am anxious about the spread of COVID-19, and am deeply concerned about the difficulties and hardships being faced by the people of Japan and several more around the world. I sincerely hope that the spread of this infection will come to a prompt end."

Based on the results of the second and third surveys last week, we found that, among surveyed participants, the outing time of an individual who was half-way between the lowest value and the highest value (the median value) was 80 minutes.
Meanwhile, your time outside was 60 minutes.

Let us all work together to overcome this challenge.

-Image-

Next

(Groups A and B)

Q2. In response to the COVID-19 crisis, on which date did Prime Minister Abe declare a state of emergency? Please choose one of the following options:

○ April 6th
○ April 7th
○ April 8th

Q3. It is important to social surveys that all respondents understand the questions well before answered. Please select "None of the above" from the available options listed below.

○ COVID-19
○ Declaration of a State of Emergency
○ Prime Minister Abe
○ 80% Reduction
○ Social Distancing
○ None of the above

Q4. As a result of the coronavirus crisis, those who are unemployed and are struggling to make ends meet can borrow money, interest-free, from the "Welfare Fund Loan System." Were you aware of this system? Please choose one of the following options:

○ I knew a lot about it
○ I have heard of it, but do not know much about it
○ I am not sure whether I knew about it
○ I did not know about it

Q5. Going forward, to what extent will you refrain from leaving your house? Please choose one of the following options:

I do not intend to refrain at all　1　2　3　4　5　6　7　I intend to refrain from going outside completely

Answer

(Groups C and D)

Q2. On which date did His Majesty the Emperor issue a statement on the COVID-19 crisis? Please choose one of the following options:

○ March 21st
○ March 22nd
○ March 23rd

Q3. It is important to social surveys that all respondents understand the questions well before answered. Please select "None of the above" from the available options listed below.

○ COVID-19
○ Declaration of a State of Emergency
○ Prime Minister Abe
○ 80% Reduction
○ Social Distancing
○ None of the above

Q4. On the previous page, we introduced the statement issued by His Majesty the Emperor about his concerns about the COVID-19 crisis. Were you aware of this news at the time? Please choose one of the following options:

○ I knew about it at the time, and remember it clearly
○ I knew about it at the time, but I do not recall it well
○ I am not sure whether I knew about it
○ I did not know about it

Q5. Going forward, to what extent will you refrain from leaving your house? Please choose one of the following options:

I do not intend to refrain at all　1　2　3　4　5　6　7　I intend to refrain from going outside completely

Answer

A.4.2 Original Version

Baseline Survey - April 17

2／14ページ

本アンケートは、4/13(月)～4/16(木)に実施した
「あなたについてのアンケート」において

4月17日(金)～5月3日(日)の間に実施される
計8回の全てのアンケートに参加できるとお答えいただいた方

に対するアンケートとなります。

本アンケートページにアクセスしていただきましてありがとうございます。
本アンケート調査は、みなさまの「普段の生活意識や行動パターン」を理解する目的のために、
大阪大学と近畿大学が共同で実施するものです。

ご回答いただいた内容は学術調査にのみ使用され、その他の目的では一切使用されません。
また、
アンケートは匿名調査で、みなさまのプライバシーは完全に保護されます。
アンケートはみなさまのありのままの姿を理解することを目的としており、
それに関する善悪の判断をすることは一切ありません。
その点をご理解いただき、気楽にお答え頂けますと幸いです。

調査は4月17日(金)に開始され、

4／17(金)、4／18(土)、4／19(日)、4／23(木)、4／25(土)、4／26(日)、5／2(土)、5／3(日)の
それぞれ 午後9時ごろ

にアンケートのご案内を行います。

4／17(金)の質問数は20問となっており、約10分の完了時間を想定しています。
残りの7日分についてはそれぞれ5問以下の簡単な調査になっており、所要時間が5分を越えることはないと想定しています。

重要なお願いですが、4月23日(木)に配信する内容については、翌日4月24日(金)の23時59分までに完了をお願いします。

全体として3週間という長期にわたる調査ですが、
ご参加頂ける方は、是非全てのアンケートにご協力くださいますよう、お願い申し上げます。

次へ進む　戻る

Q1. あなたの性別をお答えください。

- 男性
- 女性
- その他

Q2. あなたの年齢をお答えください。

- 19歳以下
- 20～29歳
- 30～39歳
- 40～49歳
- 50～59歳
- 60歳以上

Q3. あなたの最終学歴をお答えください。

- 中学卒
- 高校卒
- 短大・高専・専門学校卒
- 大学・大学院卒

Q4. あなたの婚姻状況をお答えください。

- 既婚
- 未婚
- 離死別

Q5. あなたのご家庭の同居人数をお答えください。

- 1人（ひとり暮らし）
- 2人
- 3人
- 4人
- 5人
- 6人
- 7人以上

Q6. あなたの居住地域をお答えください。

選択してください

Q7. あなたの就業状態をお答えください。

- ○ 正規の職員・従業員
- ○ パート・アルバイト
- ○ 派遣社員
- ○ 契約・嘱託社員
- ○ 自営業
- ○ 専業主婦・主夫
- ○ 学生
- ○ その他（　　）

Q8. 2019年のあなたのご家庭の世帯年収（税引き前）をお答えください。

- ○ 200万円未満
- ○ 200万円～400万円未満
- ○ 400万円～600万円未満
- ○ 600万円～800万円未満
- ○ 800万円～1000万円未満
- ○ 1000万円～1200万円未満
- ○ 1200万円～1500万円未満
- ○ 1500万円～2000万円未満
- ○ 2000万円～3000万円未満
- ○ 3000万円～5000万円未満
- ○ 5000万円以上

Q9. 最近1ヶ月のあなたやあなたの同居家族全員の経済活動のことを思い浮かべてください。
普段と異なる収入の変動はありませんでしたでしょうか。
Q8でお答え頂いた普段の収入額とは違う、追加的な収入の増加・減少の金額をお答えください。
千円以下は切り上げて、万円単位でお答えください。

- ○ 収入増加があった（　　）万円
- ○ 収入に変化はなかった
- ○ 収入減少があった（　　）万円

次へ進む　戻る

4／14ページ

Q10. 色々なことを考え合わせて、最近のあなたの健康状態はいかがですか？以下の選択肢から1つお選びください。

	1	2	3	4	5	6	7	
	←	←	←		→	→	→	
全く健康でない	○	○	○	○	○	○	○	とても健康である

次へ進む 戻る

5／14ページ

Q11. 今仮に10000円をもらったとします。
これをそのまま今すぐ使ってもよいですし、次のようなルールで貯金することもできます。
貯金すると、1年後に、預けた金額が確実に2倍になって返還されます。
あなたは、10000円のうち、いくら貯金しますか？

[ ] 円

次へ進む 戻る

6／14ページ

Q12. 今仮に10000円をもらったとします。
これをそのまま使ってもよいですし、次のようなゲームにも使えるとします。
このゲームに参加すると、
確率50%で掛け金がゼロになり、
確率50%で掛け金が2倍になります。
あなたは、10000円のうち、いくらこのゲームに使いますか？

[ ] 円

次へ進む 戻る

7／14ページ

Q13. 今仮に10000円をもらったとします。
これをそのまま自分で使ってもよいですし、誰か他の人に分け与えることもできます。
あなたは、10000円のうち、いくら分け与えますか？

[ ] 円

次へ進む 戻る

8／14ページ

Q14. あなたはどのくらい周りの人の意見・行動を気にして、自分の意見・行動を決めますか？
以下の選択肢から1つお選びください。

	1	2	3	4	5	6	7	
	←	←	←		→	→	→	
全く気にしない	○	○	○	○	○	○	○	とても気にする

次へ進む 戻る

9／14ページ

Q15. あなたは政治にどのくらい関心がありますか？以下の選択肢から1つお選びください。

	1	2	3	4	5	6	7	
	←	←	←		→	→	→	
全く関心がない	○	○	○	○	○	○	○	とても関心がある

次へ進む 戻る

10／14ページ

Q16. 政治では、左派や右派という言い方をすることがあります。
0を最も極端な左派、10を最も極端な右派とした場合、あなた自身は0から10のどこになると思いますか。
以下の選択肢から1つお選びください。

	0	1	2	3	4	5	6	7	8	9	10	
	←	←	←	←	←		→	→	→	→	→	
最も極端な左派	○	○	○	○	○	○	○	○	○	○	○	最も極端な右派

次へ進む 戻る

11／14ページ

Q17. あなたは現在の政府の政策をどのくらい評価していますか？以下の選択肢から1つお選びください。

	1	2	3	4	5	6	7	
	←	←	←		→	→	→	
全く評価していない	○	○	○	○	○	○	○	とても評価している

次へ進む 戻る

12／14ページ

Q18. あなたにはどのくらい信仰心や信心がありますか？以下の選択肢から1つお選びください。

	1	2	3	4	5	6	7	
	←	←	←		→	→	→	
全くない	○	○	○	○	○	○	○	とてもある

次へ進む　戻る

13／14ページ

Q19. あなたは、日本に住んでいることをどのくらい誇りに思いますか。以下の選択肢から1つお選びください。

	1	2	3	4	5	6	7	
	←	←	←		→	→	→	
全く誇りに思わない	○	○	○	○	○	○	○	とても誇りに思う

次へ進む　戻る

14／14ページ

Q20. あなたが現在使用しているスマートフォン・携帯電話をお答えください。

※複数使用している場合は、主に使用しているものについてお答えください。
※仕事用のものは含まず、プライベートで使用しているものについてお答えください。

- ○ Android
- ○ iPhone
- ○ その他のスマートフォン・携帯電話
- ○ スマートフォン・携帯電話を持っていない

回答　戻る

Outing Time - April 18-May 3 (Weekend: this example is for April 18)

生活意識や行動パターンに関するアンケートの第2回目(全8回)です。

今回は4月18日(土)のことについてお答えください。

Q1.　4月18日(土)に、どのくらいの時間、家から出かけていましたか。出かけていた時間の合計をお答えください。

※外出をしていない場合は「0時間0分」とお答えください。

[　　]時間　[　　]分

Q2.　そのうち、日常生活に必要な外出(例:日用品の買い出し、学校への登校、仕事場への出勤、通院など)は合計どのくらいの時間になりますか？
1回の外出で目的が複数ある場合、それぞれにかけた時間を分けて頂き、その中で日常生活に必要と考えられるものの合計時間をお答えください。

※日常生活に必要な外出しかしていない場合は、Q1と同じ時間をお答えください。

[　　]時間　[　　]分

回答　戻る

Intervention - April 23

(All groups)

2／5ページ

生活意識や行動パターンに関するアンケートの第4回目(全8回)です。

アンケートの第1回でも記載させていただきましたが、
本アンケート調査は、みなさまの「普段の生活意識や行動パターン」を理解する目的のために、
大阪大学と近畿大学が共同で実施するものです。

ご回答いただいた内容は学術調査にのみ使用され、その他の目的では一切使用されません。
また、
アンケートは匿名調査で、みなさまのプライバシーは完全に保護されます。
アンケートはみなさまのありのままの姿を理解することを目的としており、
それに関する善悪の判断をすることは一切ありません。

その点をご理解いただき、気楽にお答え頂けますと幸いです。

次へ進む

3／5ページ

Q1. 先週末（4／18日（土）と4／19（日））のことを思い浮かべてください。
あなたは、他の人の行動と比較して、外出を控えていたと思いますか？以下の選択肢から1つお選びください。

- 他の人より外出時間は短かったと思う
- 他の人と外出時間は同じくらいだと思う
- 他の人より外出時間は長かったと思う

次のページでは、書かれている内容を良く読んで下さい 。

次へ進む

(Group A)

現在、皆様がご存じの様に、新型コロナウイルスの感染拡大が社会問題と
なっており、日常生活に大きな影響が出ております。

事態の解決に向け、去る4月7日には政府から緊急事態宣言が発令され、

「（前略）国民の皆さまに社会機能維持のための事業継続は引き続きお願いしつつ、可能な限りの外出自粛等に全面的にご協力をいただきたいと考えております」

との要請が出されています。

今後、新型コロナウイルスの問題が沈静化するかは、
我々ひとりひとりの行動にかかっているのは間違いありません。

皆でこの困難を乗り越えましょう。

(Group B: example of outing time is displayed for illustration)

現在、皆様がご存じの様に、新型コロナウイルスの感染拡大が社会問題と
なっており、日常生活に大きな影響が出ております。

事態の解決に向け、去る4月7日には政府から緊急事態宣言が発令され、

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に全面的にご協力をいただきたいと考えております」

との要請が出されています。

なお、先週の2、3回目調査でお答え頂いた内容をもとに計算したところ、
皆様のなかの、ちょうど真ん中のひとの外出時間（中央値）は80分でした。
一方、**あなた自身の外出時間は60分でした。**

皆でこの困難を乗り越えましょう。

(Group C)

現在、皆様がご存じの様に、新型コロナウイルスの感染拡大が社会問題と
なっており、日常生活に大きな影響が出ております。

現在の事態に至る前、去る3月22日に天皇陛下が出された文書には、

「（前略）新型コロナウイルスの感染が拡大していることを案じ、我が国の国民、そして世界の多くの人々が直面している様々な困難や苦労に深く思いを致しています。この感染の広がりが早く終息に向かうことを心から願っております」

とのお言葉があります。

今後、新型コロナウイルスの問題が沈静化するかは、
我々ひとりひとりの行動にかかっているのは間違いありません。

皆でこの困難を乗り越えましょう。

(Group D: example of outing time is displayed for illustration)

現在、皆様がご存じの様に、新型コロナウイルスの感染拡大が社会問題と
なっており、日常生活に大きな影響が出ております。

現在の事態に至る前、去る3月22日に天皇陛下が出された文書には、

「（前略）新型コロナウイルスの感染が拡大していることを案じ、我が国の国民、そして世界の多くの人々が直面している様々な困難や苦労に深く思いを致しています。この感染の広がりが早く終息に向かうことを心から願っております」

とのお言葉があります。

なお、先週の2、3回目調査でお答え頂いた内容をもとに計算したところ、
皆様のなかの、ちょうど真ん中のひとの外出時間（中央値）は80分でした。
一方、**あなた自身の外出時間は60分でした。**

皆でこの困難を乗り越えましょう。

(Groups A and B)

5／5ページ

Q2. 安倍首相から新型コロナウイルスに関する緊急事態宣言が発令されたのは何月何日だったでしょう？以下の選択肢から1つお選びください。

- ○ 4月6日
- ○ 4月7日
- ○ 4月8日

Q3. 社会調査では回答者の皆様が設問をよく理解し、そのうえで回答して頂くことが重要です。
以下の選択肢では、回答の候補の中から、「どれでもない」を選んでください。

- ○ 新型コロナウイルス
- ○ 緊急事態宣言
- ○ 安倍首相
- ○ 8割削減
- ○ ソーシャルディスタンス
- ○ どれでもない

Q4. 新型コロナウイルスの影響で失業に追い込まれ生活費に困った場合は、無利子で生活資金を借りられる「生活福祉資金貸付制度」があります。この制度はご存知でしたでしょうか。以下の選択肢から1つお選びください。

- ○ よく知っていた
- ○ 聞いたことはあるが、あまり詳しくは知らなかった
- ○ 知っていたかどうか定かではない
- ○ 知らなかった

Q5. あなたは、今後、外出をどの程度控えたいと思いますか？以下の選択肢から1つお選びください。

	1 ←	2 ←	3 ←	4	5 →	6 →	7 →	
全く控えようと思わない	○	○	○	○	○	○	○	完全に控えようと思う

回答

(Groups C and D)

5／5ページ

Q2. 天皇陛下から新型コロナウイルスに関するお言葉が出されたのは何月何日だったでしょう？以下の選択肢から1つお選びください。

- ○ 3月21日
- ○ 3月22日
- ○ 3月23日

Q3. 社会調査では回答者の皆様が設問をよく理解し、そのうえで回答して頂くことが重要です。
以下の選択肢では、回答の候補の中から、「どれでもない」を選んでください。

- ○ 新型コロナウイルス
- ○ 緊急事態宣言
- ○ 安倍首相
- ○ 8割削減
- ○ ソーシャルディスタンス
- ○ どれでもない

Q4. 先ほどのページで、天皇陛下が出された文書に新型コロナウイルスに関するご懸念があると紹介しました。このニュースは元々ご存じでしたでしょうか。以下の選択肢から1つお選びください。

- ○ 元々知っていて、はっきりと覚えていた
- ○ 元々知っていたが、あまり覚えていなかった
- ○ 知っていたかどうか定かではない
- ○ 知らなかった

Q5. あなたは、今後、外出をどの程度控えたいと思いますか？以下の選択肢から1つお選びください。

	1 ←	2 ←	3 ←	4	5 →	6 →	7 →	
全く控えようと思わない	○	○	○	○	○	○	○	完全に控えようと思う

回答

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