

Supplementary Materials

for

Adaptive and Dark Personality in the Covid-19 Pandemic:

Predicting Health-behavior Endorsement and the Appeal of Public-health Messages

2020

Table of Contents

<u>Table S1:</u> Distribution of Effort Check Data.....	3
<u>Table S2:</u> Distribution of Invalid Responding Data	4
<u>Table S3:</u> Distribution of the Inconsistency Check Data.....	5
<u>Table S4:</u> Distribution of Completion Times Below the Median	6
<u>Table S5:</u> Principal Components Analysis of Current Health Behavior (CHB).....	7
<u>Table S6:</u> Principal Components Analysis of Future Health Behavior (FHB).....	8
<u>Table S7:</u> Principal Components Analysis of Carrier Pretend Scenario Ratings (CPS).....	9
<u>Table S8:</u> Participant Characteristics	10
<u>Table S9:</u> Self-reported Location by U.S. State.....	11
<u>Table S10:</u> Descriptives for Health Behavior Endorsement and Message Appeal Variables	12
<u>Table S11:</u> Descriptives for Personality Variables	13
<u>Figure S1:</u> The Compassionate and Sociable Messages Were the Most and Least Favored	14
<u>Table S12:</u> Bivariate Correlations among Health Behavior Endorsement and Public-health Message Appeal Variables	15
<u>Table S13:</u> Bivariate Correlations among Personality Variables	16
<u>Table S14:</u> Bivariate Correlations among Main Study Variables and Covariates.....	17
<u>Table S15:</u> Descriptive Statistics for Personality Superfactors	18
<u>Table S16:</u> Exploratory Analyses with Personality Superfactors and Health Behavior.....	19
<u>Table S17:</u> Exploratory Analyses with Personality Superfactors and Message Appeal.....	20
<u>Table S18:</u> Exploratory Multiple Regression Analyses Predicting Message Appeal	21
<u>Figure S2:</u> Conscientiousness and Neuroticism Interact in Predicting Current Social Distancing	22
<u>Figure S3:</u> Conscientiousness and Agreeableness as Related to Future Social Distancing.....	23
<u>Table S19:</u> Unplanned Multiple Regression Analyses Predicting Key Health-related Variables from Normal-range Personality Dimensions	24
<u>Table S20:</u> Unplanned Multiple Regression Analyses Predicting Health-related and Harmful Behavior Endorsement from the Triarchic Model of Psychopathy Dimensions.....	25
<u>Table S21:</u> Unplanned Multiple Regression Analyses Predicting Health- related and Harmful Behavior Endorsement from the Dark Triad of Personality Dimensions	26

<u>Appendix SA:</u> Text of the Public-health Messages	27
--	----

Table S1*Distribution of Effort Check Data (N = 652)*

Bootstrap (1000)		Bias	SE	95% C.I.	
<i>M</i>	0.055	0.000	0.009	0.038	0.075
<i>Md</i>	0	0	0	0	0
<i>SD</i>	0.229	-0.001	0.018	0.192	0.264
Skewness	3.904	0.054	0.402	3.230	4.819
<i>SE</i> Skewness	0.096				
Kurtosis	13.280	0.589	3.263	8.461	21.292
<i>SE</i> Kurtosis	0.191				
<i>Min.</i>	0				
<i>Max.</i>	1				

Frequencies	<i>n</i>	%
0	616	94.5
1	36	5.5
<i>N</i>	652	100

Note: 1 = failure of any of four effort checks. Effort checks were simple analogies, like: “*Sheep* is to *lamb* as ____ is to a *calf*.”

Table S2*Distribution of Invalid Responding Data (N = 616)*

Bootstrap (1000)		Bias	SE	95% C.I.	
<i>M</i>	0.395	0.001	0.032	0.335	0.466
<i>Md</i>	0	0	0	0	0
<i>SD</i>	0.837	0.000	0.051	0.746	0.939
Skewness	2.637	-0.014	0.179	2.293	2.994
SE Skewness	0.098				
Kurtosis	7.543	-0.096	1.294	5.159	10.358
SE Kurtosis	0.197				
<i>PR</i> = 95	2	0.147	0.345	2.000	3.000
<i>PR</i> = 98	3	0.275	0.424	3.000	4.000
<i>PR</i> = 99	4	-0.057	0.267	3.000	4.000
<i>Min.</i>	0				
<i>Max.</i>	5				
Possible range	0-6				

PR = Percentile rank. Validity checks were responses with scores beyond the midpoint in the undesirable direction on such question as “I am answering these questions thoughtfully.”

Table S3*Distribution of the Inconsistency Check Data (N = 562)*

Bootstrap (1000)	Bias	SE	95% C.I.	
<i>M</i>	1.867	-0.001	0.051	1.767 1.970
<i>Md</i>	2.000	-0.022	0.143	2.000 2.000
<i>Mode</i>	1.000			
<i>SD</i>	1.226	-0.005	0.060	1.105 1.340
Skewness	1.509	-0.016	0.131	1.220 1.731
SE Skewness	0.103			
Kurtosis	3.224	-0.057	0.553	2.131 4.284
SE Kurtosis	0.206			
<i>Min.</i>	0			
<i>Max</i>	7			
<i>PR = 95</i>	4	0.100	0.293	4.000 5.000
<i>PR = 98</i>	6	-0.282	0.445	5.000 6.000
<i>PR = 99</i>	6.370	0.066	0.465	6.000 7.000

PR = Percentile rank.

Inconsistency	n	%	Cum. %
0	28	5	5
1	228	40.6	45.6
2	186	33.1	78.6
3	71	12.6	91.3
4	27	4.8	96.1
5	9	1.6	97.7
6	8	1.4	99.1
7	5	0.9	100
N	562	100	

Note: Inconsistency scores are based on the sum of the absolute values of the differences between the items from three pairs of nearly identical items after any necessary reverse-coding.

Table S4*Distribution of Completion Time Below the Median (N = 540)*

Completion time (min.) Stem-and-Leaf Plot

Frequency	Stem &	Leaf
1.00	Extremes	(= <2.5)
1.00	5 .	4
3.00	5 .	779
4.00	6 .	2344
6.00	6 .	678999
11.00	7 .	12222334444
11.00	7 .	56667788889
13.00	8 .	000022222334
16.00	8 .	5666677888889999
20.00	9 .	01111111122222233444
21.00	9 .	5556666677778889999999
26.00	10 .	00000001111222222333333344
29.00	10 .	5555555566667777788888899999
15.00	11 .	011112223333344
17.00	11 .	55566777778889999
18.00	12 .	000011111222333334
20.00	12 .	5666677777777789999
22.00	13 .	0000001111122222444444
16.00	13 .	5566666777788889

Stem width: 1.00
Each leaf: 1 case(s)

Table S5*Principal Components Analysis with Varimax Rotation of Current Health Behavior (N = 502)*

Abbreviated item	Component		Variance Explained			Communi- nality
	1	2	#	Eigenvalue	%	
1. Limit contact	.83		1	5.26	52.57	.75
3. Stay at home	.83		2	1.22	12.16	.71
4. Avoid social activities	.77		3	0.73	7.30	.62
5. Avoid visiting relatives	.74		4	0.57	5.72	.66
2. Keep a 6-foot distance	.71	.36	5	0.51	5.08	.64
6. Protect older people	.70	.33	6	0.42	4.23	.60
7. Wash hands frequently		.81	7	0.39	3.88	.72
9. Disinfect surfaces		.81	8	0.33	3.29	.69
8. Avoid touching face		.80	9	0.31	3.08	.71
10. Cover one’s cough	.30	.54	10	0.27	2.69	.39

Note: Loadings > .3 were omitted.

Table S6*Principal Components Analysis of Future Health Behavior (N = 502)*

Abbreviated item	Component			Variance Explained			Communi- nality
	1	2	3	#	Eigenvalue	%	
1. Limit contact	.83	-.30		1	8.54	60.97	.87
3. Stay at home	.82	-.33		2	1.82	13.00	.83
4. Avoid visiting relatives	.78			3	.97	6.91	.72
2. Keep a 6-foot distance	.75		.43	4	.47	3.37	.81
6. Protect older people	.75		.42	5	.39	2.81	.80
5. Avoid social activities	.74	-.45		6	.36	2.55	.81
13. Go on a new date		.90		7	.32	2.29	.91
14. Sex with someone new		.89		8	.30	2.17	.88
11. Go to large social event		.88		9	.23	1.66	.85
12. Go to small social event	-.36	.84		10	.18	1.29	.85
9. Disinfect surfaces			.82	11	.17	1.18	.76
8. Avoid touching face			.82	12	.14	1.00	.80
7. Wash hands frequently	.34		.79	13	.08	0.57	.80
10. Cover one's cough	.42	-.40	.56	14	.03	0.24	.80

Note: Loadings > .3 were omitted.

Table S7*Principal Components Analysis of Carrier Pretend Scenario Ratings (N = 502)*

Item	Component		Variance Explained		Communality	
	1	2	#	Eigenvalue %		
18. Purposefully touch, spit on, or sneeze on high-use surfaces in public	.91		1	5.91	32.85	.88
17. Purposefully touch, spit on, or sneeze on high-use surfaces at work	.91		2	2.40	13.31	.88
15. Purposefully shake hands with, hug, or kiss someone you hate	.73		3	1.61	8.93	.80
7. Go to a social event or a party	.73		4	1.15	6.38	.69
12. If you get the chance, go on an in-person date with someone new	.70	(.39)	5	1.03	5.72	.77
8. Shake hands with strangers	.62	(.50)	6	0.94	5.22	.70
16. Sneeze or spit on the personal belongings of some you hate	.61		7	0.91	5.06	.87
9. Shake hands with people you know well		.75	8	0.78	4.32	.81
10. Shake hands with people you care about	(.43)	.68	9	0.67	3.71	.80
13. If you get the chance, go to an in-person job interview		.67	10	0.53	2.93	.50
11. Hug and/or kiss people that you are close with		.64	11	0.49	2.74	.62
4. Wear a mask outside your home (assuming you have masks) (R)		.54	12	0.43	2.37	.67
5. Go to work (assuming you work and not from home)		.51	13	0.39	2.17	.49
6. Go out in public to take care of business that isn't urgent		.48	14	0.29	1.63	.56
3. Wear a mask at home (assuming you have masks) (R)		.48	15	0.23	1.26	.59
14. If you get the chance, have sex (in person, not online) with someone new	.42	(.47)	16	0.15	0.85	.64
1. Go to seek medical attention, but first call ahead (R)			17	0.10	0.57	.48
2. Go to seek medical attention, without calling ahead			18	0.00	0.00	.33

Note: Item 10 was allocated to the first component in scale creation for conceptual coherence.

Table S8*Participant Characteristics (N = 502)*

Sex	51% male 49% female	Socioeconomic status (current)	
Age	$M = 41$, $SD = 11$, $Md = 40$ Range = 21 – 76 years	Poor	8.2%
Education	$M = 15$, $SD = 2.04$, $Md = 16.0$	Working class	33.9%
Race/Ethnicity		Lower middle class	15.9%
77.5%	White/Caucasian	Middle class	35.3%
10.0%	Asian/Asian-American	Upper middle class	6.8%
6.2%	Black/African-American	Higher class	0.0%
3.8%	Latinx/Hispanic	Employment status	
0.6%	Native American	Full-time employed	60.4%
2.0%	Other	Part-time employed	8.8%
Relationship status		Self-employed	21.3%
47.2%	single	Full-time student	0.6%
36.3%	married	Unemployed	2.8%
9.4%	divorced	Disabled	1.2%
5.2%	life-partnered	Retired/Retired but working	3.6%
0.6%	separated	Other	1.7%
1.6%	widowed	Covid-10 effect on work	
Work from home?		No effect	57.0%
33.3%	Yes, normally from home	More hours/extra shifts	4.6%
25.7%	Yes, because of coronavirus	Fewer hours/fewer shifts	22.5%
40.2%	No / Not applicable	Furlough	5.8%
Covid-19 diagnosis history		Laid off	3.0%
1	“Yes”	Other	6.8%
20	“No, but WE think WE had it”	Covid-19 risk: chronic condition	
481	“No”	No	72.5%
		Not sure	6.8%
		Yes	20.7%

Table S9*Self-reported Location by U.S. State*

State	n	%	State (cont.	n	%
Alabama	6	1.2	Nevada	7	1.4
Arkansas	0	0	New Hampshire	1	0.2
Arizona	13	2.6	New Jersey	15	3
California	63	12.5	New Mexico	3	0.6
Colorado	12	2.4	New York	29	5.8
Connecticut	7	1.4	North Carolina	25	5
Delaware	1	0.2	North Dakota	0	0
District of Columbia	1	0.2	Ohio	14	2.8
Florida	35	7	Oklahoma	7	1.4
Georgia	14	2.8	Oregon	4	0.8
Hawaii	4	0.8	Pennsylvania	31	6.2
Idaho	0	0	Puerto Rico	0	0
Illinois	15	3	Rhode Island	3	0.6
Indiana	2	0.4	South Carolina	8	1.6
Iowa	2	0.4	South Dakota	0	0
Kansas	3	0.6	Tennessee	8	1.6
Kentucky	12	2.4	Texas	27	5.4
Louisiana	7	1.4	Utah	3	0.6
Maine	2	0.4	Vermont	3	0.6
Maryland	7	1.4	Virginia	13	2.6
Massachusetts	10	2	Washington	13	2.6
Michigan	23	4.6	West Virginia	2	0.4
Minnesota	10	2	Wisconsin	20	4
Mississippi	0	0	Total	501	99.8
Missouri	8	1.6	Missing	1	0.2
Montana	4	0.8	Sample	502	100
Nebraska	4	0.8			

Table S10*Descriptives for Health Behavior Endorsement and Message Appeal Variables (N = 502)*

	Items	Scale	<i>M</i>	95% C.I. ²	<i>Md</i>	<i>SD</i>	α
Health Behavior Endorsement				bias-corrected			
Current Social Distancing	6	0-3	2.55	[2.5 - 2.6]	2.7	0.57	.89
Current Hygiene	4	0-3	2.31	[2.3 - 2.4]	2.5	0.63	.80
Future Social Distancing	6	0-4	3.55	[3.5 - 3.6]	3.8	0.83	.95
Future Hygiene	4	0-4	3.31	[3.2 - 3.4]	3.8	0.89	.87
Future Venturous Behavior	4	0-4	0.24	[0.2 - 0.3]	0.0	0.79	.95
Carrier Scenario: Protecting Others	8	0-3	0.03	[0.0 - 0.1]	0.0	0.14	.65
Carrier Scenario: Harmful Behavior	8	0-3	2.65	[2.6 - 2.7]	2.8	0.36	.74
Public-health Message (PHM) Appeal¹							
Message 1: Self-centered	3	0-100	77.11	[75 - 79]	83.3	22.44	.94
Message 2: Responsible	3	0-100	78.41	[77 - 80]	83.3	22.41	.94
Message 3: Compassionate	3	0-100	83.73	[82 - 86]	90.0	19.43	.93
Message 4: Avoidant	3	0-100	76.61	[75 - 79]	83.3	23.31	.95
Message 5: Sociable	3	0-100	66.29	[64 - 69]	73.3	28.74	.94
PHM Rankings							
Message 1: Self-centered – rank	1	1-5	2.71	[2.6 - 2.8]	3	1.16	-
Message 2: Responsible – rank	1	1-5	2.75	[2.7 - 2.9]	3	1.22	-
Message 3: Compassionate – rank	1	1-5	2.22	[2.1 - 2.3]	2	1.28	-
Message 4: Avoidant – rank	1	1-5	3.20	[3.1 - 3.3]	3	1.37	-
Message 5: Sociable - rank	1	1-5	4.13	[4.0 - 4.2]	5	1.28	-

¹ Messages were presented for evaluation in a random order.² Bootstrapping estimates based on 1000 iterations.

Table S11*Descriptives for Personality Variables (N =502)*

	Items	Scale	<i>M</i>	95% C.I.**	<i>Md</i>	<i>SD</i>	α
Mini-IPIP*				bias-corrected			
Agreeableness	4	0-4	2.92	[2.8 – 3.0]	3.0	0.90	.88
Conscientiousness	4	0-4	2.93	[2.9 – 3.0]	3.0	0.80	.77
Extraversion	4	0-4	1.38	[1.3 - 1.5]	1.0	1.10	.89
Neuroticism	4	0-4	1.40	[1.3 - 1.5]	1.3	1.01	.84
Openness	4	0-4	3.00	[2.9 - 3.1]	3.0	0.86	.80
AMP*							
Boldness ¹	11	0-3	0.97	[0.9 – 1.0]	0.91	0.56	.86
Meanness ¹	11	0-3	0.44	[0.4 - 0.5]	0.27	0.47	.88
Disinhibition ¹	11	0-3	0.50	[0.5 - 0.5]	0.36	0.45	.87
SD3*							
Narcissism	9	0-4	1.39	[1.3 - 1.5]	1.33	0.77	.84
Machiavellianism	9	0-4	1.75	[1.7 - 1.8]	1.67	0.74	.84
Psychopathy	9	0-4	0.87	[0.8 - 0.9]	0.78	0.62	.79

***Mini-IPIP** = Mini-Internal Personality Item Pool (Donnellan et al., 2006); **AMP** = Abbreviated Measure of Psychopathy (Semel, 2018); **SD3** = Short Dark Triad (Jones & Paulhus, 2014).

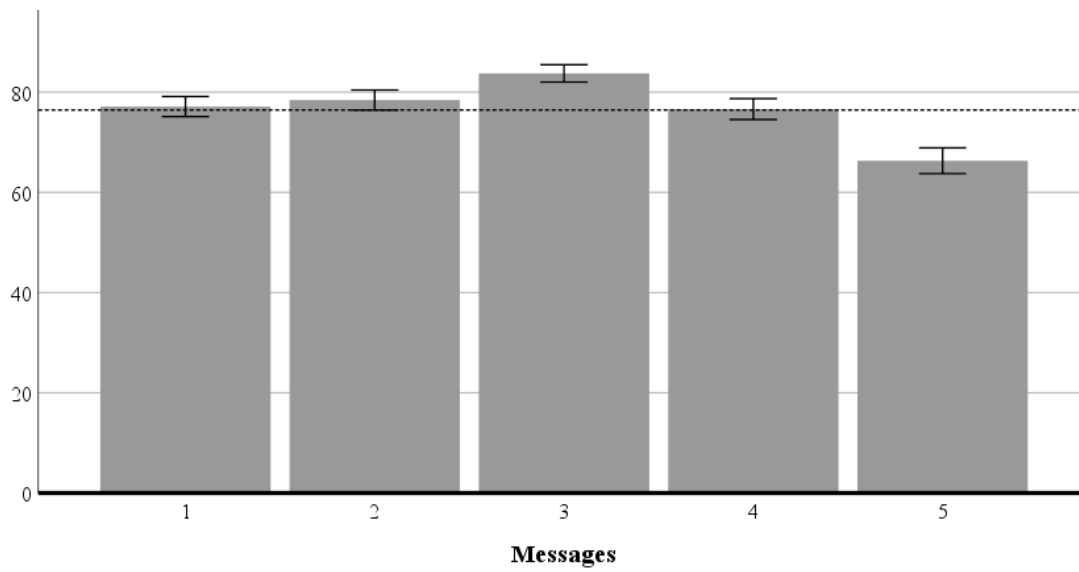
¹Scores reversed for interpretability.

** Bootstrapping estimates based on 1000 iterations.

Figure S1

The Compassionate and Sociable Messages Were the Most and Least Favored

1 = Self-centered; 2 = Responsible; 3 = Compassionate; 4 = Avoidant; 5 = Sociable.



Error bars: +/- 2 SE

Table S12*Bivariate Correlations among Health Behavior Endorsement and Public-health Message Appeal Variables, Two-tailed (N = 502)*

Pearson correlations	1	2	3	4	5	6	7	8	9	10	11
1. CHB: SD	<i>r</i> -										
	<i>p</i> -										
2. CHB: H	<i>r</i> .61										
	<i>p</i> 1.3E-51										
3. FHB: SD	<i>r</i> .58	.38									
	<i>p</i> 1.7E-46	5.2E-19									
4. FHB: H	<i>r</i> .41	.69	.73								
	<i>p</i> 7.1E-22	3.5E-73	2.2E-84								
5. FHB: VB	<i>r</i> -.12	-.08	-.62	-.50							
	<i>p</i> 6.0E-03	6.4E-02	8.3E-54	3.1E-33							
6. CS: HB	<i>r</i> -.25	-.17	-.19	-.17	.20						
	<i>p</i> 1.6E-08	9.4E-05	1.4E-05	2.0E-04	8.3E-06						
7. CS: PO	<i>r</i> .30	.37	.23	.29	-.13	-.47					
	<i>p</i> 4.7E-12	1.7E-17	2.8E-07	1.7E-11	4.0E-03	1.4E-28					
8. M1: SC	<i>r</i> .42	.46	.29	.38	-.05	-.14	.23				
	<i>p</i> 1.2E-22	9.3E-28	1.6E-11	1.8E-18	3.1E-01	2.3E-03	1.1E-07				
9. M2: R	<i>r</i> .50	.51	.36	.42	-.09	-.16	.24	.75			
	<i>p</i> 1.7E-33	3.1E-34	1.0E-16	1.6E-22	5.0E-02	2.5E-04	3.1E-08	2.0E-93			
10. M3: C	<i>r</i> .54	.52	.36	.42	-.08	-.15	.23	.66	.69		
	<i>p</i> 8.5E-39	8.0E-36	3.0E-17	5.7E-23	8.8E-02	8.0E-04	2.4E-07	4.5E-65	2.2E-72		
11. M4: A	<i>r</i> .49	.45	.33	.37	-.05	-.13	.20	.78	.75	.67	
	<i>p</i> 5.0E-31	1.6E-26	5.0E-14	1.1E-17	2.3E-01	2.5E-03	5.8E-06	5.5E-105	3.8E-90	1.7E-65	
12. M5: SO	<i>r</i> .37	.38	.21	.27	.03	-.11	.17	.59	.60	.54	.60
	<i>p</i> 5.5E-18	3.1E-18	1.5E-06	1.6E-09	4.7E-01	1.3E-02	1.3E-04	4.5E-48	1.2E-50	1.4E-38	1.3E-50

Note: CHB = Current Health Behavior (SD = Social Distancing, H = Hygiene); FHB = Future Health Behavior (VB = Venturous Behavior); CS = Carrier Scenario (HB = Harmful Behavior, PO = Protecting Others); **M** = Public-health Message (SC = Self-centered, R = Responsible, C = Compassionate, A = Avoidant, SO = Sociable). **Note:** $p < .01 = 1.0E-2$, $p < .001 = 1.0E-3$.

Table S13*Bivariate Correlations among Personality Variables, Two-tailed (N = 502)*

		1: MIP	2	3	4	5	6	7	8	9	0	11	12	13	14	15
	A															
2. MIP C	<i>r</i>	.18														
	<i>p</i>	6.0E-05														
3. MIP E	<i>r</i>	.30	.18													
	<i>p</i>	1.0E-11	7.7E-05													
4. MIP NE	<i>r</i>	-.13	-.28	-.38												
	<i>p</i>	4.2E-03	2.6E-10	2.4E-18												
5. MIP O	<i>r</i>	.35	.05	.30	-.12											
	<i>p</i>	5.0E-16	2.6E-01	3.5E-12	5.6E-03											
6. MIP ST	<i>r</i>	.64	.67	.43	-.73	.26										
	<i>p</i>	3.2E-58	9.9E-67	1.0E-23	1.1E-84	2.8E-09										
7. MIP PL	<i>r</i>	.40	.15	.86	-.33	.75	.44									
	<i>p</i>	2.5E-20	8.4E-04	4.3E-145	5.7E-14	5.3E-93	7.7E-25									
8. MIP PF	<i>r</i>	.62	.51	.74	-.64	.58	.87	.82								
	<i>p</i>	2.2E-54	6.3E-34	4.3E-87	2.3E-59	1.2E-45	4.7E-157	3.5E-124								
9. AMP B	<i>r</i>	-.10	.00	.50	-.27	.26	.10	.49	.33							
	<i>p</i>	2.6E-02	9.6E-01	1.3E-33	1.1E-09	1.8E-09	2.6E-02	7.5E-32	3.0E-14							
10. AMP M	<i>r</i>	-.60	-.21	-.07	.24	-.18	-.51	-.15	-.40	.37						
	<i>p</i>	4.2E-50	1.7E-06	1.0E-01	8.4E-08	7.7E-05	4.0E-35	1.0E-03	3.1E-21	5.3E-18						
11. AMP D	<i>r</i>	-.27	-.41	.11	.21	.01	-.43	.08	-.23	.53	.65					
	<i>p</i>	7.5E-10	5.9E-22	1.5E-02	1.4E-06	7.7E-01	1.2E-23	6.6E-02	3.2E-07	3.4E-38	5.0E-62					
12. AMP Tot.	<i>r</i>	-.38	-.23	.24	.05	.06	-.31	.20	-.09	.80	.80	.87				
	<i>p</i>	2.1E-18	1.3E-07	3.1E-08	2.9E-01	1.9E-01	1.1E-12	6.0E-06	5.0E-02	3.3E-114	8.6E-113	9.2E-154				
13. SD3 Nar	<i>r</i>	.03	.12	.60	-.19	.23	.17	.54	.40	.69	.28	.33	.55			

	<i>p</i>	5.6E-01	8.1E-03	2.5E-51	1.7E-05	1.7E-07	1.5E-04	8.3E-40	6.1E-21	4.1E-72	3.5E-10	6.3E-14	3.2E-40			
14. SD3 Mch	<i>r</i>	-.37	-.16	-.04	.22	-.10	-.37	-.08	-.28	.34	.63	.46	.57	.37		
	<i>p</i>	1.0E-17	4.6E-04	3.2E-01	5.4E-07	3.3E-02	1.1E-17	6.4E-02	1.9E-10	6.0E-15	4.7E-56	1.0E-27	2.4E-44	4.5E-18		
15. SD3 P	<i>r</i>	-.35	-.28	.14	.19	.01	-.39	.10	-.19	.53	.67	.72	.77	.42	.62	
	<i>p</i>	7.6E-16	1.7E-10	2.3E-03	2.8E-05	7.8E-01	5.1E-20	2.4E-02	1.2E-05	5.4E-38	1.8E-67	4.5E-81	3.6E-100	1.7E-22	9.5E-56	
16. SD3 DF	<i>r</i>	-.28	-.12	.30	.08	.07	-.23	.24	-.01	.65	.64	.61	.77	.76	.83	.82
	<i>p</i>	3.3E-10	8.9E-03	5.6E-12	8.0E-02	1.4E-01	2.4E-07	3.0E-08	8.0E-01	1.5E-61	3.4E-59	4.8E-52	2.1E-100	2.2E-96	5.7E-128	2.5E-124

Note: **MIP** = Mini-IPIP (A = Agreeableness, C = Conscientiousness, E = Extraversion, NE = Neuroticism, O = Openness, ST = Stability, PL = Plasticity, PF = General P Factor); **AMP** = Abbreviated Measure of Psychopathy (B = Boldness, M = Meanness, D = Disinhibition); **SD3** = Short Dark Triad (Nar = Narcissism, Mch = Machiavellianism, P = Psychopathy, DF = Dark Factor. **Note:** $p < .01 = 1.0E-2$, $p < .001 = 1.0E-3$.

Table S14*Bivariate (Pearson) Correlations among Main Study Variables and Key Covariates, Two Tailed (N = 502)*

	Gender ¹	Age	Risk ²		Gender	Age	Risk		Gender	Age	Risk
CHB: SD	<i>r</i> .19	.11	.17	MIP: A	<i>r</i> .26	.09	.05	AMP: B	<i>r</i> -.32	-.18	-.08
	<i>p</i> 1.2E-05	1.1E-02	1.5E-04		<i>p</i> 4.5E-09	5.4E-02	2.8E-01		<i>p</i> 2.5E-13	3.5E-05	7.9E-02
CHB: H	<i>r</i> .19	.04	.11	MIP: C	<i>r</i> .04	-.04	-.08	AMP: M	<i>r</i> -.23	-.22	-.03
	<i>p</i> 2.5E-05	3.3E-01	1.4E-02		<i>p</i> 3.6E-01	3.2E-01	8.8E-02		<i>p</i> 2.7E-07	8.7E-07	5.2E-01
FHB: SD	<i>r</i> .20	.12	.11	MIP: E	<i>r</i> -.04	.00	-.09	AMP: D	<i>r</i> -.21	-.19	-.04
	<i>p</i> 1.0E-05	5.3E-03	1.6E-02		<i>p</i> 4.1E-01	9.7E-01	5.3E-02		<i>p</i> 1.8E-06	1.9E-05	3.6E-01
FHB: H	<i>r</i> .22	.06	.09	MIP: NE	<i>r</i> .16	-.08	.13	AMP: Tot.	<i>r</i> -.31	-.24	-.06
	<i>p</i> 8.4E-07	1.6E-01	5.7E-02		<i>p</i> 4.5E-04	8.1E-02	3.5E-03		<i>p</i> 7.1E-13	6.4E-08	1.6E-01
FHB: VB	<i>r</i> -.08	-.05	-.05	MIP: O	<i>r</i> -.06	-.01	.05	SD3: Nar	<i>r</i> -.19	-.13	-.12
	<i>p</i> 9.0E-02	2.6E-01	3.0E-01		<i>p</i> 2.1E-01	8.1E-01	2.7E-01		<i>p</i> 1.7E-05	3.5E-03	6.4E-03
CS: HB	<i>r</i> -.11	-.16	-.04	MIP: ST	<i>r</i> .06	.07	-.08	SD3: Mch	<i>r</i> -.28	-.23	-.04
	<i>p</i> 1.2E-02	2.9E-04	3.6E-01		<i>p</i> 1.9E-01	1.4E-01	7.1E-02		<i>p</i> 2.9E-10	2.5E-07	3.6E-01
CS: PO	<i>r</i> .12	.02	.03	MIP: PL	<i>r</i> -.06	.00	-.03	SD3: P	<i>r</i> -.41	-.24	-.04
	<i>p</i> 9.3E-03	6.2E-01	4.8E-01		<i>p</i> 2.1E-01	9.1E-01	4.6E-01		<i>p</i> 9.4E-22	3.5E-08	4.2E-01
M1: SC	<i>r</i> .14	.24	.10	MIP: PF	<i>r</i> .01	.04	-.07	SD3: DF	<i>r</i> -.35	-.25	-.09
	<i>p</i> 2.0E-03	5.0E-08	2.0E-02		<i>p</i> 8.9E-01	3.8E-01	1.2E-01		<i>p</i> 2.5E-16	2.6E-08	5.6E-02
M2: R	<i>r</i> .14	.25	.15	M4: Av	<i>r</i> .14	.23	.16				
	<i>p</i> 1.2E-03	2.1E-08	7.9E-04		<i>p</i> 1.2E-03	1.4E-07	4.1E-04				
M3: Com	<i>r</i> .21	.22	.13	M5: S	<i>r</i> .10	.15	.15				
	<i>p</i> 2.2E-06	3.9E-07	2.9E-03		<i>p</i> 2.9E-02	7.7E-04	7.8E-04				

Note: ¹**Gender** = identified gender (0 = man, 1 = woman); ²**Risk** = self-reported chronic health condition that increases risk from Covid-19 (0 = no, 1 = maybe, 2 = yes); **CHB** = Current Health Behavior (SD = Social Distancing, H = Hygiene); **FHB** = Future Health Behavior (VB = Venturous Behavior); **M** = Public-health Message (SC = Self-centered, R = Responsible, Com = Compassionate, Av = Avoidant, S = Sociable); **MIP** = Mini-IPIP (A = Agreeableness, C = Conscientiousness, NE = Neuroticism, O = Openness, ST = Stability, PL = Plasticity, PF = General P Factor); **AMP** = Abbreviated Measure of Psychopathy (B = Boldness, M = Meanness, D = Disinhibition); **SD3** = Short Dark Triad (Nar = Narcissism, Mch = Machiavellianism, P = Psychopathy, DF = Dark Factor of Personality). **Note:** $p < .01 = 1.0E-2$, $p < .001 = 1.0E-3$.

Table S15*Descriptive Statistics for Personality Superfactors (N = 502)*

	Items	Scale	<i>M</i>	95% C.I. **	<i>Md</i>	<i>SD</i>	α
Mini-IPIP*				bias-corrected			
Stability (C, A, rev. N)	12	0-4	2.82	[2.8 - 2.9]	2.8	0.62	.80
Plasticity (E, O)	8	0-4	2.19	[2.1 - 2.3]	2.1	0.79	.83
P (General Factor of Personality)	4	0-4	2.57	[2.5 - 2.6]	2.6	0.58	.85
AMP*							
AMP Psychopathy ¹	33	0-3	0.64	[0.6 - 0.7]	0.58	0.41	.92
SD3*							
D (Dark Factor of Personality)	27	0-4	1.34	[1.3 - 1.4]	1.30	0.57	.90

* Mini-IPIP: Mini – International Personality Item Pool; AMP: Abbreviated Measure of Psychopathy; SD3: Short Dark Triad.

** Bootstrapping estimates based on 1000 iterations.th

Table S16

Exploratory Analyses with Personality Superfactors and Health Behavior Endorsements: Partial Correlations Controlling for Gender, Age, and Risk Health Condition, One-tailed, with Bias-corrected Confidence Interval Estimates, N = 502.

Personality superfactors		Current Health Behavior				Future Health Behavior						Carrier Scenario			
		Social distancing		Hygiene		Social distancing		Hygiene		Venturous behavior		Harmful behavior		Protecting others	
MIP Stability	r_p/p	.24	4.3E-08	.38	1.2E-18	.21	1.6E-06	.37	6.9E-18	-.09	2.1E-02	-.15	2.9E-04	.18	2.4E-05
98% b.c. C.I.		[.14 – .36]		[.27 – .48]		[.09 – .33]		[.26 – .48]		[-.24 – .03]		[-.24 – -.08]		[.08 – .28]	
MIP Plasticity	r_p/p	.13	2.6E-03	.24	9.7E-08	.05	1.5E-01	.17	5.0E-05	.02	3.5E-01	-.08	4.0E-02	.15	3.5E-04
98% b.c. C.I.		[.03 – .25]		[.12 – .34]		[-.06 – .15]		[.06 – .29]		[-.09 – .13]		[-.15 – -.01]		[.05 – .25]	
MIP P Factor	r_p/p	.23	3.2E-07	.37	1.6E-17	.16	2.4E-04	.33	2.9E-14	-.05	1.4E-01	-.14	8.8E-04	.20	4.7E-06
98% b.c. C.I.		[.12 – .34]		[.25 – .47]		[.05 – .28]		[.22 – .44]		[-.17 – .05]		[-.21 – -.07]		[.10 – .29]	
AMP Psychopathy	r_p/p	-.15	9.2E-04	-.15	5.6E-04	-.21	1.3E-06	-.20	2.2E-06	.18	2.6E-05	.17	4.4E-05	-.17	4.5E-05
98% b.c. C.I.		[-.26 – -.03]		[-.28 – -.01]		[-.36 – -.06]		[-.35 – -.07]		[.03 – .33]		[.01 – .30]		[-.28 – -.08]	
SD3 Dark Factor	r_p/p	-.14	1.5E-03	-.12	9.6E-03	-.13	2.5E-03	-.12	2.8E-03	.11	6.1E-03	.13	1.5E-03	-.10	1.3E-02
98% b.c. C.I.		[-.24 – -.04]		[-.23 – .01]		[-.27 – .01]		[-.26 – .01]		[-.04 – .29]		[.02 – .23]		[-.20 – .00]	

Note: Controlling for sex, age, and risk health condition.

Note: Bootstrap estimation of C.I. with 1000 iterations. **Note:** $p < .01 = 1.0E-2$, $p < .001 = 1.0E-3$.

Note: MIP = Mini-IPIP (Stability subsumes Conscientiousness, Agreeableness, and low Neuroticism; Plasticity subsumes Extraversion and Openness; and the General P Factor subsumes all five factors with Neuroticism reversed); AMP = Abbreviated Measure of Psychopathy (AMP Psychopathy subsumes Boldness, Meanness and Disinhibition); SD3 = Short Dark Triad (the SD3 Dark Factor subsumes Narcissism, Machiavellianism, and Psychopathy).

Table S17

Exploratory Analyses with Personality Superfactors and Public-health Message Appeal: Partial Correlations Controlling for Gender, Age, and Risk Health Condition, One-tailed, with Bias-corrected Confidence Interval Estimates, N = 502.

Personality dimensions	Public-health Message Appeal									
		Self-centered	Responsible	Compassionate	Avoidant	Sociable				
MIP Stability r_p/p	0.27	7.1E-10	.26	1.8E-09	.31	7.5E-13	.23	1.8E-07	.19	6.9E-06
98% b.c. C.I.		[0.15 – .37]	[.14 – .36]	[.21 – .40]	[.11 – .32]	[.07 – .32]				
MIP Plasticity r_p/p	0.17	9.7E-05	.17	5.1E-05	.15	2.6E-04	.14	1.1E-03	.16	1.8E-04
98% b.c. C.I.		[0.05 – .27]	[.06 – .28]	[.05 – .25]	[.02 – .24]	[.05 – .26]				
MIP P Factor r_p/p	0.26	2.2E-09	.26	2.3E-09	.28	9.9E-11	.22	4.9E-07	.21	1.3E-06
98% b.c. C.I.		[0.14 – .37]	[.14 – .36]	[.17 – .37]	[.10 – .32]	[.09 – .32]				
AMP Total r_p/p	-0.08	3.2E-02	-.11	8.3E-03	-.25	7.1E-09	-.08	3.5E-02	-.06	1.0E-01
98% b.c. C.I.		[-0.18 – .03]	[-.21 – .01]	[-.36 – -.14]	[-.18 – .01]	[-.15 – .03]				
SD3 Total r_p/p	-0.06	8.9E-02	-.09	2.8E-02	-.21	1.1E-06	-.01	3.9E-01	.01	4.6E-01
98% b.c. C.I.		[-0.17 – .04]	[-.19 – .02]	[-.31 – -.11]	[-.11 – .08]	[-.10 – .10]				

Note: Controlling for sex, age, and risk health condition.

Note: Bootstrap estimation of C.I. with 1000 iterations. **Note:** $p < .01 = 1.0E-2$, $p < .001 = 1.0E-3$.

Note: MIP = Mini-IPIP (Stability subsumes Conscientiousness, Agreeableness, and low Neuroticism; Plasticity subsumes Extraversion and Openness; and the General P Factor subsumes all five factors with Neuroticism reversed); AMP = Abbreviated Measure of Psychopathy (AMP Psychopathy subsumes Boldness, Meanness and Disinhibition); SD3 = Short Dark Triad (the SD3 Dark Factor subsumes Narcissism, Machiavellianism, and Psychopathy).

Table S18*Exploratory Multiple Regression Analyses Predicting Message Appeal from Personality Variables (N = 502)*

Personality dimensions	<i>Public-health Message Appeal</i>									
	Self-centered		Responsible		Compassionate		Avoidant		Sociable	
Model 1	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
MIP Agreeableness	0.25	<.0001	0.29	<.0001	0.39	<.0001	0.25	<.0001	0.21	<.0001
MIP Conscientiousness	0.10	.0260	0.07	.1450	0.08	.0615	0.07	.1068	0.01	.7450
MIP Neuroticism	0.04	.3601	0.04	.3739	-0.05	.2462	0.02	.6232	0.11	.0245
MIP Extraversion	-0.04	.4034	-0.02	.5994	-0.04	.3994	-0.02	.7271	-0.02	.7462
MIP Openness	-0.02	.6758	-0.02	.7047	0.01	.8121	-0.01	.7732	-0.05	.3364
Model 2	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
AMP Boldness	0.05	.3095	0.05	.3260	0.03	.6099	0.01	.8029	0.05	.3379
AMP Meanness	-0.15	.0087	-0.23	.0001	-0.31	<.0001	-0.12	.0352	-0.19	.0015
AMP Disinhibition	-0.08	.1853	-0.04	.5173	-0.10	.0817	-0.08	.2387	0.00	.9536
Model 3	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
SD3 Narcissism	0.15	.0019	0.16	.0011	0.08	.0945	0.13	.0080	0.16	.0010
SD3 Machiavellianism	-0.10	.0691	-0.18	.0015	-0.16	.0025	0.00	.9611	-0.06	.2996
SD3 Psychopathy	-0.20	.0005	-0.16	.0043	-0.27	<.0001	-0.24	<.0001	-0.16	.0064

Note: MIP: Mini-IPIP; AMP: Abbreviated Measure of Psychopathy; SD3: Short Dark Triad.

Figure 2S

Conscientiousness and neuroticism interact in predicting self-reported social distancing (corrected for age, gender identity, and the presence of a chronic health condition that increases the risk of Covid-19), $N = 502$.

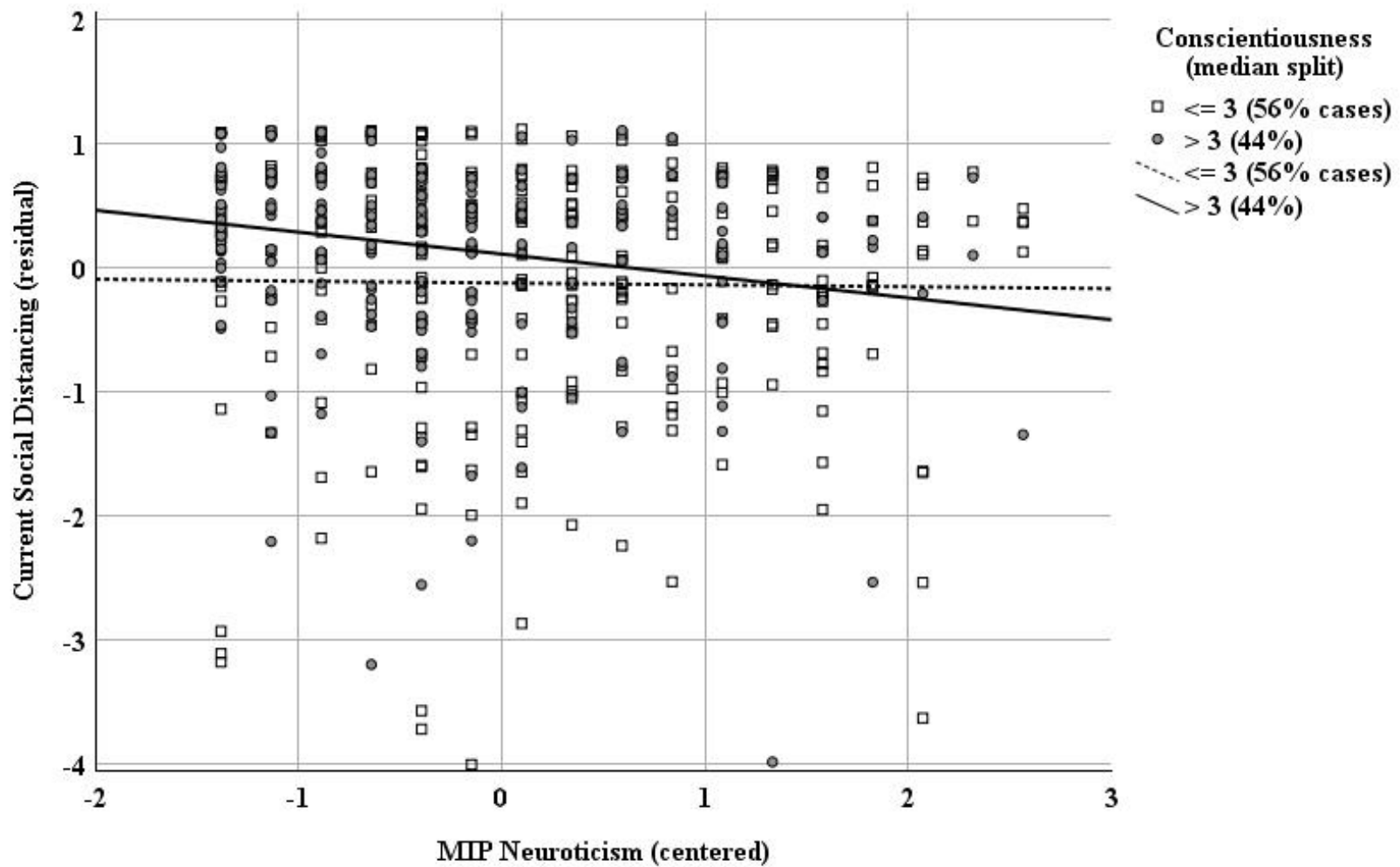
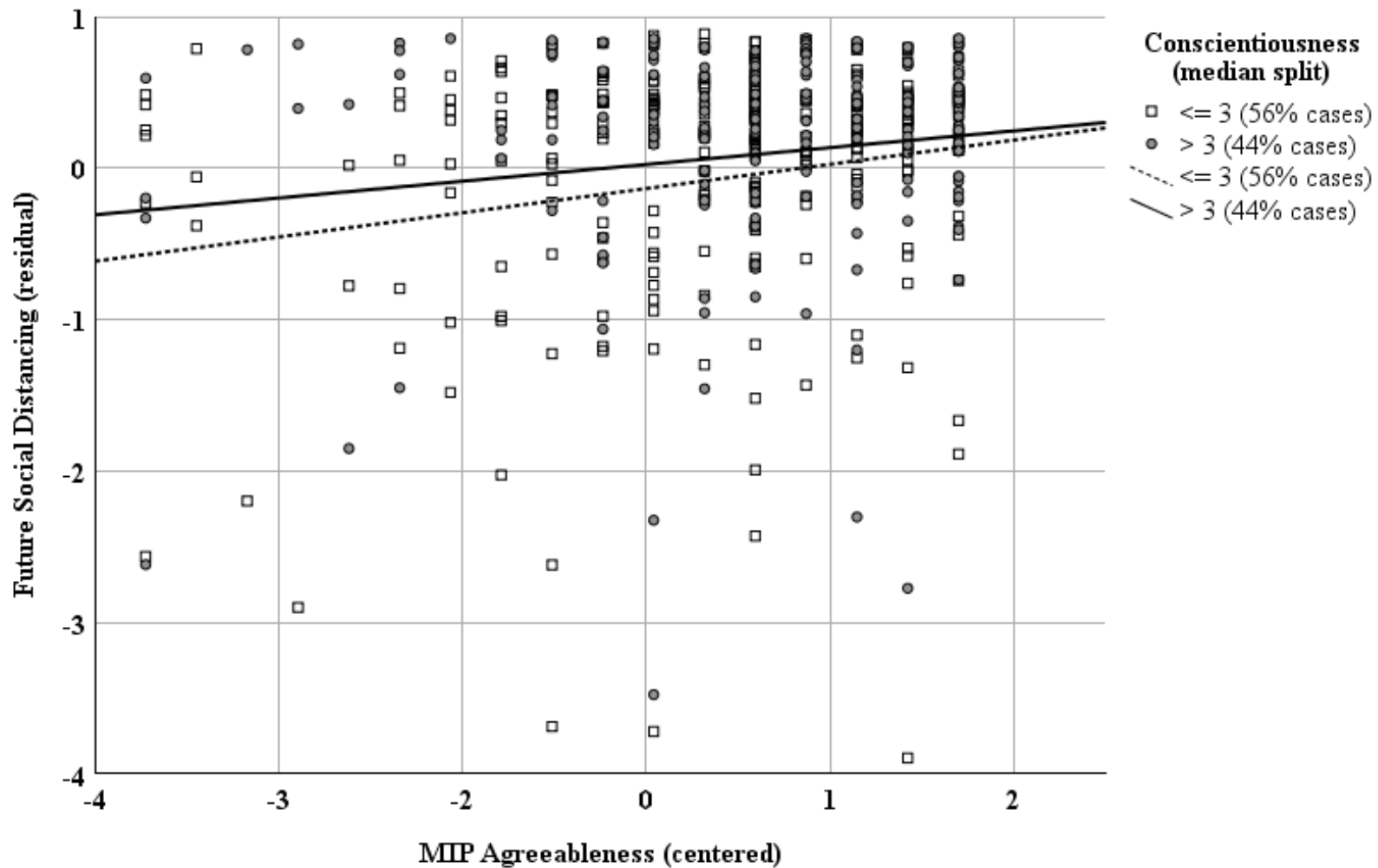


Figure S3

Conscientiousness and agreeableness as they relate to self-reported intent for future social-distancing (corrected for age, gender identity, and the presence of a chronic health condition that increases the risk of Covid-19), $N = 502$. (Note that the test of interaction was significant in null-hypothesis testing but not in a bootstrap analysis.)



Tale S19

Unplanned Multiple Regression Analyses Predicting Key Health-related Variables from Normal-range Personality Dimensions (N = 502)

Model	Step 2 ¹	Predictors	R	Adj. R ²	p	β	p	b	95% b.c. C.I.	VIF	DW
1	Current Health Behavior: Social Distancing	Agreeableness	.35 [†]	.108 [†]	5.3E-11	0.17 [†]	8.0E-4	0.11	0.02 – 0.18	1.35	2.04
		Conscientiousness				0.13*	4.4E-3	0.09	0.02 – 0.16	1.13	
		Neuroticism				-0.05	3.5E-1	-0.03	-0.08 – 0.03	1.31	
		Extraversion				0.02	6.8E-1	0.01	-0.04 – 0.06	1.32	
		Openness				0.02	7.4E-1	0.01	-0.05 – 0.07	1.23	
2	Future Health Behavior: Social Distancing	Agreeableness	.31 [†]	.097 [†]	3.7E-8	0.15*	2.0E-3	0.14	0.04 – 0.24	1.35	1.99
		Conscientiousness				0.11 [^]	1.7E-2	0.11	0.01 – 0.22	1.13	
		Neuroticism				-0.07	1.4E-1	-0.06	-0.16 – 0.02	1.31	
		Extraversion				0.00	1.0E+0	0.00	-0.06 – 0.07	1.32	
		Openness				-0.08	1.1E-1	-0.07	-0.16 – 0.01	1.23	
3	Future Health Behavior: Hygiene	Agreeableness	.44 [†]	.181 [†]	1.8E-19	0.28 [†]	6.0E-9	0.27	0.17 – 0.39	1.35	2.01
		Conscientiousness				0.15*	6.1E-4	0.16	0.06 – 0.27	1.13	
		Neuroticism				-0.12 [^]	1.3E-2	-0.10	-0.18 – -0.03	1.31	
		Extraversion				0.04	3.6E-1	0.03	-0.03 – 0.10	1.32	
		Openness				-0.05	2.3E-1	-0.06	-0.14 – 0.03	1.23	
4	Carrier Scenario: Harmful Behavior	Agreeableness	.25*	.05*	8.7E-5	-0.15*	2.4E-3	-0.02	-0.05 – 0.00	1.35	2.06
		Conscientiousness				-0.02	5.9E-1	0.00	-0.02 – 0.01	1.13	
		Neuroticism				0.06	2.2E-1	0.01	0.00 – 0.02	1.31	
		Extraversion				0.03	5.9E-1	0.00	-0.01 – 0.03	1.32	
		Openness				-0.02	7.1E-1	0.00	-0.04 – 0.02	1.23	

¹Each model controls for age, gender identity, and health risk status in a previous step omitted for brevity. Bootstrap estimation of bias-corrected C.I. with 1000 iterations. VIF: variance inflation factors. DW: Durbin-Watson statistic.

[^] $p < .05 = 5.0E-2$; * $p < .01 = 1.0E-2$; [†] $p < .001 = 1.0E-3$

Table S20

Unplanned Multiple Regression Analyses Predicting Health-related and Harmful Behavior Endorsement from the Triarchic Model of Psychopathy Dimensions (N = 502).

Model	Step 2 ¹	Predictors	R	Adj. R ²	p	β	p	b	95% b.c. C.I.	VIF	DW
1	Current	Boldness	.31 [†]	.087 [†]	3.1E-09	0.08	1.4E-01	0.08	-0.03 – 0.17	1.50	2.01
	Health Behavior:	Meanness				-0.10	7.2E-02	-0.13	-0.33 – 0.06	1.80	
	Social Distancing	Disinhibition				-0.15 [^]	1.7E-02	-0.19	-0.35 - -0.04	2.10	
2	Future	Boldness	.32 [†]	.094 [†]	4.7E-10	0.04	4.8E-01	0.05	-0.10 – 0.20	1.50	1.97
	Health Behavior:	Meanness				-0.10	7.7E-02	-0.18	-0.40 – 0.04	1.80	
	Social Distancing	Disinhibition				-0.19 [*]	2.7E-03	-0.34	-0.60 - -0.09	2.10	
3	Future	Boldness	.39 [†]	.140 [†]	2.2E-15	0.17 [†]	9.2E-04	0.27	0.10 - 0.43	1.50	1.96
	Health Behavior:	Meanness				-0.21 [†]	2.2E-04	-0.39	-0.66 - -0.14	1.80	
	Hygiene	Disinhibition				-0.20 [†]	8.0E-04	-0.40	-0.65 - -0.14	2.10	
4	Carrier	Boldness	.29 [†]	.070 [†]	1.9E-7	-0.06	2.2E-01	-0.02	-0.04 – 0.01	1.50	2.05
	Scenario:	Meanness				0.15 [^]	1.0E-02	0.04	0.01 – 0.09	1.80	
	Harmful Behavior	Disinhibition				0.13 [^]	3.9E-02	0.04	0.00 – 0.09	2.10	
5	Future	Boldness	.23 [†]	.040 [†]	2.1E-4	0.01	8.9E-01	0.01	-0.14 – 0.16	1.50	2.04
	Health Behavior:	Meanness				-0.01	8.7E-01	-0.02	-0.27 – 0.20	1.80	
	Venturous	Disinhibition				0.22 [†]	6.3E-04	0.38	0.10 – 0.68	2.10	

¹Each model controls for age, gender identity, and health risk status in a previous step omitted for brevity. Bootstrap estimation of bias-corrected C.I. with 1000 iterations. VIF: variance inflation factors. DW: Durbin-Watson statistic.

[^] $p < .05 = 5.0E-2$; ^{*} $p < .01 = 1.0E-2$; [†] $p < .001 = 1.0E-3$.

Table S21

Unplanned Multiple Regression Analyses Predicting Health- related and Harmful Behavior Endorsement from the Dark Triad of Personality Dimensions (N = 502)

Model	Step 2 ¹	Predictors	R	Adj. R ²	p	β	p	b	95% b.c. C.I.	VIF	DW
1	Current	Narcissism	.39 [†]	.118 [†]	1.0E-12	0.14*	2.6E-03	0.11	0.08 – 0.19	1.26	2.03
	Health Behavior:	Machiavellianism				-0.07	2.0E-01	-0.05	-0.14 – 0.03	1.70	
	Social Distancing	Psychopathy				-0.27 [†]	4.9E-06	-0.25	-0.37 – -0.13	1.95	
2	Future	Narcissism	.31 [†]	.085 [†]	4.6E-9	0.10 [^]	3.8E-02	0.11	0.01 – 0.21	1.26	1.97
	Health Behavior:	Machiavellianism				-0.03	5.5E-01	-0.04	-0.14 – 0.06	1.70	
	Social Distancing	Psychopathy				-0.24 [†]	5.5E-05	-0.32	-0.51 – -0.13	1.95	
3	Future	Narcissism	.35 [†]	.121 [†]	6.8E-12	0.18 [†]	2.1E-04	0.20	0.10 – 0.32	1.26	1.94
	Health Behavior:	Machiavellianism				-0.12 [^]	3.6E-02	-0.14	-0.27 – 0.00	1.70	
	Hygiene	Psychopathy				-0.23 [†]	9.2E-05	-0.33	-0.52 – -0.15	1.95	
4	Carrier	Narcissism	.25 [†]	.052 [†]	1.3E-5	-0.02	6.5E-01	0.00	-0.02 – 0.01	1.26	2.06
	Scenario:	Machiavellianism				0.00	9.3E-01	0.00	-0.2 – 0.03	1.70	
	Harmful Behavior	Psychopathy				0.20 [†]	8.9E-04	0.05	0.01 – 0.08	1.95	
5	Future	Narcissism	.20*	.028*	2.6E-3	-0.03	5.0E-01	-0.03	-0.13 – 0.06	1.26	2.05
	Health Behavior:	Machiavellianism				-0.03	5.9E-01	-0.03	-0.15 – 0.09	1.70	
	Venturous	Psychopathy				0.23 [†]	2.5E-04	0.29	0.10 – 0.48	1.95	

¹ Each model controls for age, gender identity, and health risk status in a previous step omitted for brevity. Bootstrap estimation of bias-corrected C.I. with 1000 iterations. VIF: variance inflation factors. DW: Durbin-Watson statistic.

[^] $p < .05 = 5.0E-2$; * $p < .01 = 1.0E-2$; [†] $p < .001 = 1.0E-3$.

Appendix SA

Public-health Messages

Self-centered:

"Keep yourself healthy!

First and foremost, prioritize your own health. Control other people's distance from you, and keep them at least 6 feet away. Use soap and hand sanitizer often to keep other people's germs away. Leave your home only to take care of your basic needs (food and medical care). If possible, work from home."

Responsible:

"Take personal responsibility!

You have an obligation to safeguard your health. Be mindful how far you are from other people, and maintain a distance of at least 6 feet. Carefully wash your hands with soap, or rub them with hand sanitizer thoroughly. You should not leave your home, except for such necessities as food or medical care. If possible, work from home."

Compassionate:

"Help protect the vulnerable!

Consider the well-being of people who are older or have chronic health conditions. To reduce their and everyone's risk, try to keep a distance of at least 6 feet away from others. Help slow the spread of germs by washing your hands with soap and using hand sanitizer often. To protect my community, only leave the house if you need necessities, like food, medication, or to help a person in need. If possible, work from home."

Avoidant:

"Avoid the disease!

It is essential to stay clear of the contagion. To remain disease-free, steer away from people by keeping a distance of at least 6 feet. To ward off germs, cleanse your hands thoroughly with soap or hand sanitizer often. Avoid leaving your home, except to get food or medical care. If possible, work from home."

Sociable:

"Distant socializing, not social distancing!

You don't have to give up on the fun of socializing because of the coronavirus. You have to keep 6 feet apart in person, but you can meet up online or chat over the phone one-on-one or in a group session. That way, you can leave your home only for necessities, like getting food or medical care. And if you do, don't spoil the party - wash your hands with soap or use hand sanitizer often. If possible, work from home."