

Supplemental Material

Personality predicts pre-COVID-19 to COVID-19 trajectories of transdiagnostic anxiety and depression symptoms

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This supplement presents the results from our hierarchical confirmatory factor analytic (CFA) models of (a) the tri-level symptom model and (b) extraversion. In addition, it includes the results of exploratory analyses using (a) the group factors of our neuroticism and behavioral activation measurement models and (b) the factors of the Big Five Aspects Scale Extraversion scale (DeYoung, 2007) as predictors. Finally, this supplement also presents the correlations among the factor score estimates for each tri-level factor with itself over time.

Hierarchical Factor Model of Extraversion

We administered the 20-item Extraversion scale from the Big Five Aspects Scales (BFAS-E; DeYoung, Quilty & Peterson, 2007). The BFAS-E was administered four times at T2 (whenever the EPQ-N and BAS were except for the initial screening which consisted of only the EPQ-N and BAS). Before conducting these factor analyses, we first computed means of each BFAS-E item based on all available data at T1 (as stated above, BFAS-E was administered four times at T1). For the initial CFA model of the BFAS-E, we specified two group factors which were labeled Enthusiasm (10 items) and Assertiveness (10 items) in accordance with the original scale guidelines (DeYoung, Quilty & Peterson, 2007). All these indicators also loaded on a general factor for a total of 20 general factor loadings. Consistent with the hierarchical factor model (e.g., McDonald, 1999; Zinbarg et al., 2005), all factors were constrained to be orthogonal. Model fit was less than adequate on two of our three fit indices ($\chi^2(150) = 791.70$, BIC=26662.30, CFI = .87, RMSEA = .087, SRMR = .06). A close examination of the content of the items suggested that the Enthusiasm subscale contains two facets that we labeled sociability and positive affect. And fit indices of subsequent modeling including this distinction supported it. That is, when modeling only the 10 Enthusiasm items, a 2 factor model fit adequately on two of our three indices ($\chi^2(34) = 242.39$, BIC=13656.55, CFI = .91, RMSEA = .104, SRMR = .06)

and better than a 1 factor model $\chi^2(35) = 477.87$, BIC=13885.68, CFI = .80, RMSEA = .149, SRMR = .08). And when modeling all 20 BFAS-E items adding these two facets to the original hierarchical model we specified, fit improved and was adequate on all three fit indices ($\chi^2(140) = 527.24$, BIC=26461.28, CFI = .92, RMSEA = .070, SRMR = .05).¹ Supplement Table 6 presents the standardized factor loadings for the BFAS-E model.

Analyses using the facets of Neuroticism and Behavioral Activation as predictors

As shown in Supplement Table 7, conditional PLGCMs including the Neuroticism facets as predictors of the trajectory parameters fit adequately for Anhedonia-Apprehension and Fears according to the CFI and RMSEA values (but not according to SRMR). However, the PLGCMs using the Neuroticism facets as predictors generally did not fit well for General Distress.

As also shown in Supplement Table 7, conditional PLGCMs including the BAS facets of predictors of the trajectory parameters fit adequately for General Distress and Fears according to all three fit indices. And the PLGCMs including the BAS facets of predictors of the trajectory parameters fit adequately for Anhedonia-Apprehension and Fears according to the CFI and RMSEA values (but not according to SRMR).

As shown in Supplement Tables 8 – 10, the Depression facet of Neuroticism had a significant (a) positive association with the General Distress Intercept, (b) positive association with the Anhedonia-Apprehension Intercept, and (c) negative association with the Fears Intercept. The Anxiety facet of Neuroticism had significant, positive associations with the

¹ In a personal communication on 5/26/22, Colin DeYoung stated “Your findings are exactly what I would expect from a CFA”.

General Distress Intercept and the Fears Intercept. None of the other associations with the Neuroticism facets were significant.

As shown in Supplement Tables 11 – 13, the Drive facet of BAS had a significant (a) negative association with the General Distress Intercept and (b) positive association with pre-COVID-19 to COVID-19 transition increase in General Distress. The Fun facet of BAS had a significant: (a) positive association with the pre-COVID-19 to COVID-19 transition increase in General Distress, (b) negative association with the Anhedonia-Apprehension Intercept and (c) negative association with the Fears Intercept. The Reinforcement facet of BAS had a significant (a) negative association with the Anhedonia-Apprehension Intercept, (b) positive association with the Pre-Covid Anhedonia-Apprehension slope, (c) negative association with the pre-COVID-19 to COVID-19 transition increase in Anhedonia-Apprehension, and (d) negative association with the Fears Intercept. None of the other associations with the BAS facets were significant.

Analyses using the BFAS-E general factor and group factors as predictors

Conditional PLGCMs using the BFAS-E factors as predictors of the trajectory parameters fit adequately for the majority of these analyses according to the CFI and RMSEA values (see Supplement Table 14). The only exceptions to this pattern were that the models with Enthusiasm, Assertiveness and the General Extraversion Factor as predictors of Fears trajectories fit adequately for all three of our indices (i.e., including SRMR) and that the models with Sociability and Assertiveness as predictors of Anhedonia-Apprehension trajectories did not achieve adequate fit on more than one index (i.e., RMSEA).

As shown in Supplement Tables 15 – 17, the General Extraversion Factor had significant negative associations with the General Distress Intercept, the Anhedonia-Apprehension

Intercept, the Fears Intercept and the pre-COVID-19 to COVID-19 transition change in Fears. The Enthusiasm aspect had a significant, negative association with the General Distress Intercept and the Anhedonia-Apprehension Intercept. The Assertiveness aspect had a significant, negative association with the General Distress Intercept and the Fears Intercept. The Sociability facet had a significant, negative association with the General Distress Intercept. The Positive Affect facet had a significant (a) positive association with the pre-COVID-19 to COVID-19 transition change in General Distress, (b) negative association with the Anhedonia-Apprehension Intercept and the pre-COVID-19 to COVID-19 transition change in Anhedonia-Apprehension, and (c+) positive associations with the COVID-19 maintenance of Anhedonia-Apprehension and the COVID-19 maintenance of Fears.

Supplement Table 1*Unstandardized Factor Loadings of the Tri-level Model at T1 and Scalar Invariant Models at Subsequent Waves*

Indicator	GD	Fears	An-Ap
SPS 1 anxious write in front of people	.55	.21	
SPS 2 self-conscious public toilets	.47		-.03
SPS 5 fear may blush when with others	.43	.06	
SPS 7 tense facing people on. bus/train	.55	.25	
SPS 8 eat front of stranger	.45	.28	
SPS 9 carry tray crowded cafeteria	.55	.23	
SPS 11 feel conspicuous in line	.46	.16	
SPS 13 awkward if people watching	.62	.28	
MASQ 79 trembling or shaking	.64		
MASQ 25 numbness, tingling in body	.58		
MASQ 19 faint	.60	.02	
MASQ 87 trouble swallowing	.47	-.07	
MASQ 48 hot or cold spells	.51	-.23	
MASQ 61 felt I was choking	.48	-.08	
MASQ 45 pain in my chest	.56	-.12	
MASQ 65 lump in my throat	.49	-.01	
MASQ 63 upset stomach	.43	.06	
MASQ 75 heart racing or pounding	.52		
MASQ 81 muscles tense or sore	.28		
MASQ 67 very dry mouth	.37	-.03	
APPQ 1 fear of sauna alone	.29	.55	
APPQ 5 fear of hiking on hot day	.39	.53	

APPQ 6 fear of gas at dentist	.18	.45	
APPQ 7 fear of snorkeling	.33	.58	
APPQ 8 fear being far from help	.17	.55	
APPQ 9 fear exercise vigorously alone	.27	.51	
APPQ 10 fear long distances alone	.26	.55	
APPQ 11 walking alone isolated areas	.80	1.29	
APPQ 21 fear feeling effects of alcohol	.16	.49	
APPQ 22 fear long, low bridge	.34	.65	
FSS 2 fear hypodermic needles	.20	.42	
FSS 5 fear rats and mice	.10	.42	
FSS 6 fear spiders	.21	.42	
FSS 4 fear worms	.23	.42	
FSS 7 fear snakes	.20	.42	
FSS 8 fear stinging insects	.30	.52	
FSS 10 fear heights	.30	.42	
MASQ 4 felt confused	.64		
MASQ 8 felt discouraged	.71		.14
MASQ 17 felt irritable	.66		
MASQ 22 felt hopeless	.74		.15
MASQ 24 blamed myself for a lot	.64		-.04
MASQ 26 withdrawn	.66		-.17
MASQ 29 dissatisfied with everything	.72		-.26
MASQ 39 took extra effort get started	.65		
MASQ 42 pessimistic about future	.66		-.26
MASQ 53 felt unattractive	.64		

MASQ 56 felt sluggish	.67		
MASQ 64 felt inferior	.70		
MASQ 74 disappointed in myself	.67		.11
IDD 1 sad	.74		.30
IDD 3 restless/fidgety	.65		
IDD 4 slowed down	.50		
IDD 6 less pleasure	.67		.28
IDD 10 inability to concentrate	.70		.10
IDD 11 inability to make decisions	.70		.08
IDD 18 anxiety	.74		-.03
IDD 19 discouraged about the future	.71		.27
MASQ 58 felt really up or lively	-.21		-.69
MASQ 14 felt really happy	-.16		-.80
MASQ 23 having a lot of fun	-.26		-.82
MASQ 49 proud of myself	-.28		-.65
MASQ 30 looked forward to things	-.29		-.74
MASQ 18 felt optimistic	-.33		-.66
MASQ 36 lot of interesting things to do	-.40		-.70
MASQ 62 able to laugh easily	-.34		-.63
MASQ 27 move quickly and easily	-.30		-.52
PSWQ1 don't worry if don't have time	-.30		-.11
PSWQ2 my worries overwhelm me	.71	.13	.03
PSWQ3 don't tend to worry	-.43		-.04
PSWQ4 many situations worry	.64	.19	.02
PSWQ5 shouldn't worry but can't help	.65	.23	

PSWQ6 under pressure, worry a lot	.66	.18	
PSWQ7 always worrying	.71	.	.04
PSWQ8 easy dismiss worries	-.33		-.08
PSWQ9 finish task, worry everything else	.59		
PSWQ10 never worry about anything	-.48		-.09
PSWQ11 nothing more can do, don't worry	-.46	-.24	.07
PSWQ12 been a worrier all life			
PSWQ13 worrying about things	.56		
PSWQ14 start worrying, can't stop	.71		
PSWQ15 worry all the time	.68	.16	.03
PSWQ16 worry until projects done	.53	.12	
WASH	.71	.28	-.14
OBS	1.39	.31	.01
HOARD	1.22	.43	-.40
ORDER	1.32	.51	-.60
CHECK	.42	.02	-.16
NEUT	.59	.03	-.21

Note. Bolded loadings were significant (two-tailed, $p < .05$).

The Obsessive Compulsive Inventory (Foa, Huppert, Leiberg et al., 2002) items were grouped by subscale before being included in the tri-level model: WASH = Washing and includes items 5, 11, and 17, OBS = Obsessions and includes items 6, 12, and 18, HOARD = Hoarding and includes items 1, 7, and 13, ORDER includes items 3, 9, and 15, CHECK = Checking and includes items 2, 8, and 14, and NEUT = Neutralizing and includes items 4, 10, and 16. SPS = Social Phobia Scale (Mattick & Clarke,

1998); MASQ = Mood and Anxiety Symptom Questionnaire (Watson et al., 1995); APPQ = Albany Panic and Phobia Questionnaire (Rapee et al., 1994/1995); FSS = Fear Survey Schedule – II (Geer, 1965); IDD = Inventory to Diagnose Depression (Zimmerman et al., 1986); PSWQ = Penn State Worry Questionnaire (Meyer, Miller, Metzger & Borkovec, 1990); GD = General Distress; An-Ap = Anhedonia-Apprehension.

Supplement Table 2

Unstandardized Factor Loadings of the Tri-level Model Narrow, Group Factors at T1 and Scalar Invariant Models at Subsequent Waves

Indicator	Soc	AA	Int/Ag	Spec	Narrow	Worry	OC	IDD
SPS 1 anxious write in front of people	.26							
SPS 2 self-conscious public toilets	.44							
SPS 5 fear may blush when with others	.31							
SPS 7 tense facing people on. bus/train	.61							
SPS 8 eat front of stranger	.44							
SPS 9 carry tray crowded cafeteria	.53							
SPS 11 feel conspicuous in line	.56							
SPS 13 awkward if people watching	.47							
MASQ 79 trembling or shaking		.57						
MASQ 25 numbness, tingling in body		.33						
MASQ 19 faint		.22						
MASQ 87 trouble swallowing		.30						
MASQ 48 hot or cold spells		.50						
MASQ 61 felt I was choking		.42						
MASQ 45 pain in my chest		.39						
MASQ 65 lump in my throat		.39						
MASQ 63 upset stomach		.32						
MASQ 75 heart racing or pounding		.59						
MASQ 81 muscles tense or sore		.36						
MASQ 67 very dry mouth		.41						
APPQ 1 fear of sauna alone			.17					

APPQ 5 fear of hiking on hot day	.41		
APPQ 6 fear of gas at dentist			
APPQ 7 fear of snorkeling			
APPQ 8 fear being far from help	.17		.09
APPQ 9 fear exercise vigorously alone	.52		
APPQ 10 fear long distances alone			
APPQ 11 walking alone isolated areas			.11
APPQ 21 fear feeling effects of alcohol			
APPQ 22 fear long, low bridge	-.11		
FSS 2 fear hypodermic needles		.07	
FSS 5 fear rats and mice	.67		
FSS 6 fear spiders	.60		
FSS 4 fear worms	.62		
FSS 7 fear snakes	.55		
FSS 8 fear stinging insects	.52		
FSS 10 fear heights			
MASQ 4 felt confused			
MASQ 8 felt discouraged		.39	.02
MASQ 17 felt irritable			
MASQ 22 felt hopeless		.43	
MASQ 24 blamed myself for a lot		.48	
MASQ 26 withdrawn		.15	
MASQ 29 dissatisfied with everything		.34	
MASQ 39 took extra effort get started			
MASQ 42 pessimistic about future		.41	-.05

MASQ 53 felt unattractive	.25	
MASQ 56 felt sluggish		
MASQ 64 felt inferior	.40	
MASQ 74 disappointed in myself	.49	
IDD 1 sad	.19	.11
IDD 3 restless/fidgety		.28
IDD 4 slowed down		.43
IDD 6 less pleasure		.35
IDD 10 inability to concentrate		.48
IDD 11 inability to make decisions		.36
IDD 18 anxiety		.18 .03
IDD 19 discouraged about the future	.29	.00
MASQ 58 felt really up or lively		
MASQ 14 felt really happy		
MASQ 23 having a lot of fun		
MASQ 49 proud of myself		
MASQ 30 looked forward to things		
MASQ 18 felt optimistic		
MASQ 36 lot of interesting things to do		
MASQ 62 able to laugh easily		
MASQ 27 move quickly and easily		
PSWQ1 don't worry if don't have time		-.39
PSWQ2 my worries overwhelm me		.44
PSWQ3 don't tend to worry		-.45
PSWQ4 many situations worry		.55

PSWQ5 shouldn't worry but can't help	.60	
PSWQ6 under pressure, worry a lot	.48	
PSWQ7 always worrying	.56	
PSWQ8 easy dismiss worries	-.41	
PSWQ9 finish task, worry everything else	.51	
PSWQ10 never worry about anything	-.61	
PSWQ11 nothing more can do, don't worry	-.36	
PSWQ12 been a worrier all life		
PSWQ13 worrying about things	.58	
PSWQ14 start worrying, can't stop	.53	
PSWQ15 worry all the time	.57	
PSWQ16 worry until projects done	.55	
WASH		1.19
OBS		.66
HOARD		.83
ORDER		1.19
CHECK		.58
NEUT		1.13

Note. Bolded loadings were significant (two-tailed, $p < .05$).

The Obsessive Compulsive Inventory (Foa, Huppert, Leiberg et al., 2002) items were grouped by subscale before being included in the tri-level model: WASH = Washing and includes items 5, 11, and 17, OBS = Obsessions and includes items 6, 12, and 18, HOARD = Hoarding and includes items 1, 7, and 13, ORDER includes items 3, 9, and 15, CHECK = Checking and includes items 2, 8, and 14, and NEUT = Neutralizing and includes items 4, 10, and 16. SPS = Social Phobia Scale (Mattick & Clarke, 1998); MASQ = Mood and Anxiety Symptom Questionnaire (Watson et al., 1995); APPQ = Albany Panic and Phobia Questionnaire (Rapee et al., 1994/1995); FSS = Fear

Survey Schedule – II (Geer, 1965); IDD = Inventory to Diagnose Depression (Zimmerman et al., 1986); PSWQ = Penn State Worry Questionnaire (Meyer, Miller, Metzger & Borkovec, 1990); Soc = Social Anxiety; AA = Anxious Arousal; Int/Ag = Interoceptive/Agoraphobic Fears; Spec = Specific Fears; Narrow = Narrow Depression; OC = Obsessions & Compulsions.

Supplement Table 3*Correlations Among the General Distress Factor Score Estimates Over Time*

	T1	T2	T3	T4	C1	C2
T1						
T2	.63					
T3	.63	.76				
T4	.68	.73	.76			
C1	.56	.63	.65	.73		
C2	.50	.57	.59	.68	.84	
C3	.48	.63	.60	.68	.73	.76

Note. T1 = pre-COVID-19 wave 1; T2 = pre-COVID-19 wave 2 (~10 months post-T1); T3 = pre-COVID-19 wave 3 (~20 months post-T1); T4 = pre-COVID-19 wave 4 (~30 months post-T1); C1 = COVID-19 wave 1 (~40 months post-T1); C2 = COVID-19 wave 2 (~41.5 months post-T1); C3 = COVID-19 wave 3 (~43 months post-T1).

Supplement Table 4*Correlations Among the Anhedonia-Apprehension Factor Score Estimates Over Time*

	T1	T2	T3	T4	C1	C2
T1						
T2	.41					
T3	.48	.52				
T4	.49	.52	.55			
C1	.24	.22	.27	.26		
C2	.19	.20	.32	.30	.63	
C3	.40	.39	.49	.51	.40	.40

Note. T1 = pre-COVID-19 wave 1; T2 = pre-COVID-19 wave 2 (~10 months post-T1); T3 = pre-COVID-19 wave 3 (~20 months post-T1); T4 = pre-COVID-19 wave 4 (~30 months post-T1); C1 = COVID-19 wave 1 (~40 months post-T1); C2 = COVID-19 wave 2 (~41.5 months post-T1); C3 = COVID-19 wave 3 (~43 months post-T1).

Supplement Table 5

Correlations Among the Fears Factor Score Estimates Over Time

	T1	T2	T3	T4	C1	C2
T1						
T2	.72					
T3	.66	.78				
T4	.60	.71	.77			
C1	.64	.69	.68	.70		
C2	.58	.67	.67	.74	.84	
C3	.58	.68	.65	.72	.80	.84

Note. T1 = pre-COVID-19 wave 1; T2 = pre-COVID-19 wave 2 (~10 months post-T1); T3 = pre-COVID-19 wave 3 (~20 months post-T1); T4 = pre-COVID-19 wave 4 (~30 months post-T1); C1 = COVID-19 wave 1 (~40 months post-T1); C2 = COVID-19 wave 2 (~41.5 months post-T1); C3 = COVID-19 wave 3 (~43 months post-T1).

Supplement Table 6

Standardized Factor Loadings from the Hierarchical Big Five Aspects Scale Extraversion

(BFAS-E) Model

Item #	Item Description	BFAS-E Factor				
		Soc	PA	Enthus	Assert	Gen
1	<i>Make friends easily</i>	-.13		.51		.52
2	<i>Hard to get to know (r)</i>	.39		.66		.23
3	<i>Keep others at a distance (r)</i>	.44		.62		.26
4	<i>Reveal little about myself (r)</i>	.53		.59		.23
5	<i>Warm up quickly to others</i>	-.16 ^a		.69		.34
6	<i>Rarely caught up in the excitement (r)</i>		.36	.39		.21
7	<i>Am not a very enthusiastic person (r)</i>		.48	.41		.35
8	<i>Show my feelings when I'm happy</i>		.49	.36		.24
9	<i>Have a lot of fun</i>		.39	.46		.37
10	<i>Laugh a lot</i>		.46	.44		.32
11	<i>Take charge</i>				.52	.68
12	<i>Have a strong personality</i>				.11 ^a	.58
13	<i>Lack talent for influencing people (r)</i>				.03 ^a	.70
14	<i>Know how to captivate people</i>				-.32	.88
15	<i>Wait for others to lead the way (r)</i>				.49	.53
16	<i>See myself as a good leader</i>				.39	.68

17	<i>Can talk others into doing things</i>	-.02 ^a	.60
18	<i>Hold back my opinion (r)</i>	.28	.37
19	<i>Am the first to act</i>	.29	.62
20	<i>Do not have assertive personality (r)</i>	.36	.55

Note. Soc = Sociability facet; PA = Positive Affect facet; Enthus = Enthusiasm aspect; Assert = Assertiveness aspect; GEF = General Extraversion factor. All loadings were significant ($p < .001$) unless noted otherwise.

^a $p > .05$

Supplement Table 7

Conditional Piecewise Latent Growth Curve Models: Fit of Models with the Neuroticism (N) facets and the Behavior Activation System(BAS) facets as Predictors

Model	χ^2	df	CFI	SRMR	RMSEA [90% CI]
General Distress					
N					
D	633.57	169	.90	.272	.090 (.082, .097)
S	659.42	169	.89	.296	.092 (.085, .100)
A	657.00	169	.89	.293	.092 (.085, .099)
BAS					
D	377.48	186	.95	.052	.055 (.047, .063)
R	389.69	186	.94	.058	.057 (.049, .064)
F	386.38	186	.94	.057	.056 (.048, .064)
Anhedonia-Apprehension					
N					
D	351.98	166	.95	.105	.057 (.049, .066)
S	368.61	166	.94	.117	.060 (.052, .068)
A	368.50	166	.94	.117	.060 (.052, .068)
BAS					
D	384.43	183	.93	.111	.057 (.049, .065)
R	369.08	183	.94	.103	.055 (.046, .063)
F	369.65	183	.94	.093	.055 (.047, .063)
Fears					
N					

D	328.61	172	.96	.127	.052 (.043, .060)
S	332.26	172	.96	.115	.052 (.044, .061)
A	329.20	172	.96	.108	.052 (.043, .060)
BAS					
D	342.51	189	.96	.074	.049 (.040, .057)
R	327.76	189	.96	.059	.046 (.038, .055)
F	335.00	189	.96	.066	.048 (.039, .056)

Note. CFI = Comparative Fit Index; SRMR = Standardized Root Mean Squared Residual; RMSEA = Root

Mean Squared Error of Approximation. N facets: D = Depression, S = Self-Consciousness, A = Anxiety; BAS

facets: D = Drive, R = Reward Responsiveness, F = Fun Seeking.

Supplement Table 8

Conditional Piecewise Latent Growth Curve Models: The Facets of Neuroticism Prediction of General Distress Growth Factors

Dimension	Facet	β	$b (SE)$	95% CI	p
Intercept	D	.40	.28 (.053)	.18, .39	$\leq .001$
	A	.14	.10 (.048)	.003, .19	$\leq .05$
	S	.11	.08 (.047)	-.02, .17	.110
Covid Initial	D	.00	.00 (.038)	-.07, .08	.969
	A	-.03	-.01 (.030)	-.07, .05	.637
	S	-.02	-.01 (.030)	-.07, .05	.785
Covid Maintenance	D	a	-.04 (.185)	-.41, .32	.812
	A	a	-.09 (.161)	-.40, .23	.589
	S	a	.00 (.164)	-.32, .33	.981

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

a = the standardized standard error was estimated to equal 0 so the standardized regression coefficient was not interpretable. *Note.* CFI = Comparative Fit Index; SRMR = Standardized Root Mean Squared Residual; RMSEA = Root Mean Squared Error of Approximation. D = Depression, S = Self-Consciousness, A = Anxiety.

Supplement Table 9

Conditional Piecewise Latent Growth Curve Models: The Facets of Neuroticism Prediction of Anhedonia-Apprehension Growth

Factors

Dimension	Facet	β	b (SE)	95% CI	p
Intercept	D	.32	.21 (.059)	.10, .33	\leq .001
	S	-.02	-.01 (.052)	-.22, .08	.836
	A	.01	.01 (.053)	-.10, .11	.865
Pre-Covid slope	D	-.33	-.03 (.025)	-.07, .02	.322
	S	.13	.01 (.022)	-.03, .05	.657
	A	-.19	-.02 (.022)	-.06, .03	.536
Covid Initial	D	-.11	-.07 (.081)	-.22, .09	.416
	S	-.14	-.09 (.069)	-.22, .05	.214
	A	-.01	-.01 (.070)	-.15, .13	.911
Covid M Maintenance	D	.15	.19 (.280)	-.36, .74	.501
	S	.21	.24 (.224)	-.20, .68	.277
	A	.22	.32 (.215)	-.11, .74	.143

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

a = the standardized standard error was estimated to equal 0 so the standardized regression coefficient was not interpretable. D = Depression, S = Self-Consciousness, A = Anxiety.

Supplement Table 10*Conditional Piecewise Latent Growth Curve Models: The Facets of Neuroticism Prediction of Fears Growth Factors*

Dimension	Facet	β	b (SE)	95% CI	p
Intercept	D	-.17	-.11 (.051)	-.21, -.01	$\leq .05$
	S	.09	.06 (.044)	-.03, .14	.194
	A	.15	.10 (.045)	.01, .18	$\leq .05$
Covid Initial	D	.10	.03 (.045)	-.06, .12	.457
	S	.03	.01 (.041)	-.07, .09	.799
	A	.01	.00 (.04)	-.08, .08	.918
Covid Maintenance	D	-.22	-.18 (.161)	-.50, .14	.263
	S	.07	.06 (.145)	-.23, .34	.695
	A	.09	.07 (.146)	-.22, .36	.623

Note. β = standardized regression coefficient; b = unstandardized regression coefficient. D = Depression, S =

Self-Consciousness, A = Anxiety.

Supplement Table 11

Conditional Piecewise Latent Growth Curve Models: The Facets of BAS Prediction of General Distress Growth Factors

Dimension	Facet	β	$b (SE)$	95% CI	p
Intercept	D	-.20	-.14 (.051)	-.24, -.04	$\leq .05$
	R	.07	.05 (.054)	-.06, .15	.393
	F	-.03	-.02 (.050)	-.12, .08	.697
Covid Initial	D	.15	.07 (.0333)	.01, .14	$\leq .05$
	R	-.06	-.03 (.036)	-.10, .04	.433
	F	.12	.06 (.031)	.00, .12	$\leq .05$
Covid Maintenance	D	a	-.02 (.178)	-.36, .33	.931
	R	a	.15 (.181)	-.21, .50	.419
	F	a	-.33 (.188)	-.70, .03	.075

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

a = the standardized standard error was estimated to equal 0 so the standardized regression coefficient was not interpretable. D =

Drive, R = Reward Responsiveness, F = Fun Seeking

Supplement Table 12*Conditional Piecewise Latent Growth Curve Models: The Facets of BAS Prediction of Anhedonia-Apprehension Growth Factors*

Dimension	Facet	β	b (SE)	95% CI	p
Intercept	D	-.05	-.03 (.055)	-.14, .08	.560
	R	-.30	-.20 (.058)	-.31, -.08	$\leq .001$
	F	-.29	-.19 (.054)	-.29, -.08	$\leq .001$
Pre-Covid slope	D	.23	.02 (.024)	-.03, .06	.481
	R	.68	.07 (.025)	-.38, -.06	$\leq .01$
	F	-.07	-.01 (.023)	-.05, .04	.822
Covid Initial	D	-.07	-.04 (.074)	-.19, .11	.580
	R	-.38	-.22 (.082)	.02, .12	$\leq .01$
	F	-.03	-.02 (.075)	-.17, .13	.812
Covid M Maintenance	D	.15	.19 (.227)	-.26, .63	.409
	R	.41	.41 (.242)	-.07, .88	.091
	F	.03	.03 (.284)	-.53, .59	.914

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

a = the standardized standard error was estimated to equal 0 so the standardized regression coefficient was not interpretable. D =

Drive, R = Reward Responsiveness, F = Fun Seeking

Supplement Table 13*Conditional Piecewise Latent Growth Curve Models: The Facets of BAS Prediction of Fears Growth Factors*

Dimension	Facet	β	b (SE)	95% CI	p
Intercept	D	-.07	-.05 (.047)	-.14, .05	.32
	R	.32	.21 (.049)	.11, .31	$\leq .001$
	F	-.23	-.15 (.046)	-.24, -.06	$\leq .001$
Covid Initial	D	.23	.08 (.043)	-.01, .16	.075
	R	.02	.01 (.046)	-.08, .10	.865
	F	-.06	-.02 (.041)	-.10, .06	.632
Covid Maintenance	D	-.06	-.05 (.154)	-.35, .25	.750
	R	-.05	-.04 (.169)	-.37, .30	.829
	F	.14	.11 (.148)	-.18, .40	.469

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

D = Drive, R = Reward Responsiveness, F = Fun Seeking

Supplement Table 14

Conditional Piecewise Latent Growth Curve Models: Fit of Models with the BFAS-E factors as Predictors

Model	χ^2	df	CFI	SRMR	RMSEA [90% CI]
General Distress					
Soc	851.65	297	.91	.106	.057 (.053 .062)
PA	852.89	297	.91	.109	.057 (.053 .062)
Enthusiasm	854.12	297	.91	.100	.057 (.053 .062)
Assertiveness	847.17	297	.91	.094	.057 (.052 .061)
GEF	831.31	297	.91	.068	.056 (.052 .061)
Anhedonia-Apprehension					
Soc	902.45	294	.89	.132	.060 (.056 .065)
PA	840.88	294	.90	.108	.057 (.053 .062)
Enthusiasm	807.93	294	.91	.086	.055 (.051 .060)
Assertiveness	902.42	294	.89	.132	.060 (.056 .065)
GEF	844.66	294	.90	.088	.057 (.053 .062)
Fears					
Soc	751.15	300	.93	.085	.051 (.047 .056)
PA	750.06	300	.93	.086	.051 (.047 .056)
Enthusiasm	752.90	300	.93	.088	.051 (.047 .056)
Assertiveness	745.22	300	.93	.070	.051 (.046 .056)
GEF	735.36	300	.93	.057	.050 (.046 .055)

Note. CFI = Comparative Fit Index; SRMR = Standardized Root Mean Squared Residual; RMSEA = Root Mean Squared Error of Approximation.

Soc = Sociability facet; PA = Positive Affect facet; Enthusiasm = Enthusiasm aspect; Assertiveness = Assertiveness aspect; GEF = General Extraversion factor.

Supplement Table 15

Conditional Piecewise Latent Growth Curve Models: BFAS-E Factors Predicting General Distress Growth Factors

Dimension	Factor	β	$b (SE)$	95% CI	p
Intercept	Soc	-.26	-.18 (.061)	-.30, -.06	$\leq .01$
	PA	-.09	-.07 (.067)	-.20, .04	.321
	Enthusiasm	-.17	-.12 (.049)	-.22, -.02	$\leq .05$
	Assertiveness	-.29	-.21 (.057)	-.32, -.10	$\leq .001$
	GEF	-.34	-.24 (.045)	-.33, -.15	$\leq .001$
Covid Initial	Soc	.15	.04 (.041)	-.04, .12	.304
	PA	.26	.14 (.048)	.04, .23	$\leq .01$
	Enthusiasm	.04	.02 (.031)	-.04, .08	.519
	Assertiveness	-.04	-.02 (.025)	-.09, .05	.637
	GEF	.09	.05 (.030)	-.01, .11	.089
Covid Maintenance	Soc	a	-.21 (.195)	-.60, .17	.267
	PA	a	-.43 (.302)	-1.02, .16	.156
	Enthusiasm	a	-.11 (.167)	-.44, .21	.496
	Assertiveness	a	.08 (.189)	-.29, .45	.671
	GEF	a	-.12 (.163)	-.44, .20	.471

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

a = the standardized standard error was estimated to equal 0 so the standardized regression coefficient was not interpretable.

Soc = Sociability facet; PA = Positive Affect facet; Enthusiasm = Enthusiasm aspect; Assertiveness = Assertiveness aspect; GEF = General Extraversion factor.

Supplement Table 16

Conditional Piecewise Latent Growth Curve Models: BFAS-E Factors Predicting Anhedonia-Apprehension Growth Factors

Dimension	Factor	β	b (SE)	95% CI	p
Intercept	Soc	.06	.04 (.079)	-.11, .19	.614
	PA	-.73	-.50 (.061)	-.62, -.38	$\leq .001$
	Enthusiasm	-.78	-.52 (.049)	-.62, -.43	$\leq .001$
	Assertiveness	-.03	-.02 (.069)	-.16, .12	.767
	GEF	-.52	-.34 (.053)	-.45, -.24	$\leq .001$
Pre-Covid slope	Soc	-.39	-.03 (.027)	-.09, .02	.253
	PA	.28	.02 (.027)	-.03, .07	.427
	Enthusiasm	.34	.03 (.023)	-.01, .08	.141
	Assertiveness	.50	.04 (.025)	-.01, .09	.119
	Extraversion	.23	.02 (.022)	-.03, .06	.424
Covid Initial	Soc	.21	.13 (.090)	-.05, .30	.162
	PA	-.68	-.22 (.109)	-.43, -.01	$\leq .05$
	Enthusiasm	-.29	-.15 (.120)	-.39, .08	.201
	Assertiveness	-.08	-.05 (.083)	-.21, .11	.561
	GEF	.17	.10 (.076)	-.04, .25	.169
Covid M Maintenance	Soc	.09	.14 (.369)	-.59, .86	.708
	PA	a	1.12 (.536)	.07, 2.17	$\leq .05$
	Enthusiasm	.37	.28 (.335)	-.38, .94	.401
	Assertiveness	-.16	-.23 (.256)	-.74, .27	.359
	GEF	-.28	-.43 (.225)	-.87, .01	.055

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

a = the residual variance for the Covid Maintenance piece was negative in this model so the standardized regression coefficient was not interpretable.

Soc = Sociability facet; PA = Positive Affect facet; Enthusiasm = Enthusiasm aspect; Assertiveness = Assertiveness aspect; GEF = General Extraversion factor.

Supplement Table 17

Conditional Piecewise Latent Growth Curve Models: BFAS-E Factors Predicting Fears Growth Factors

Dimension	Factor	β	$b (SE)$	95% CI	p
Intercept	Soc	.16	.10 (.055)	-.01, .21	.063
	PA	.09	.06 (.061)	-.06, .18	.355
	Enthusiasm	.10	.07 (.045)	-.02, .16	.122
	Assertiveness	-.24	-.16 (.050)	-.26, -.06	$\leq .001$
	GEF	-.23	-.15 (.041)	-.23, -.07	$\leq .001$
Covid Initial	Soc	-.17	-.06 (.049)	-.15, .04	.242
	PA	-.23	-.08 (.059)	-.19, .04	.187
	Enthusiasm	-.07	-.02 (.041)	-.10, .06	.566
	Assertiveness	.01	.001 (.047)	-.09, .10	.929
	GEF	-.24	-.08 (.039)	-.15, -.002	$\leq .05$
Covid Maintenance	Soc	.09	.07 (.174)	-.27, .41	.700
	PA	.51	.43 (.208)	.03, .84	$\leq .05$
	Enthusiasm	.01	.01 (.145)	-.28, .30	.944
	Assertiveness	-.05	-.04 (.171)	-.38, .29	.808
	GEF	.27	.21 (.146)	-.08, .50	.148

Note. β = standardized regression coefficient; b = unstandardized regression coefficient.

Soc = Sociability facet; PA = Positive Affect facet; Enthusiasm = Enthusiasm aspect; Assertiveness = Assertiveness aspect; GEF = General Extraversion factor.