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SUPPLEMENT

Supplementary information for: Psychedelics and psychological strengths

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Supplement 1. *Demographic characteristics of the samples of each of the three studies.*

S1.1 Demographics

		Study 1		Study 2		Study 3	
		Number	%	Number	%	Number	%
Completed Survey		516	100	1703	100	1214	100
Dropped - Failure to Meet Validity Procedures		51	11.8	153	9	72	5.9
Participants		465	88.2	1550	91	1142	94.1
Participants who Provided Meditation Hours Data						1008	83
Sex	Male	131	28.2	458	29.5	825	72.20%
	Female	334	71.8	1087	70.1	307	26.90%
	TINB			5	0.3	10	0.90%
	Total	465	100	1550	100	1142	100.00%
Age		L	H	L	H	L	H
		18	75	18	84	18	89
		M	SD	M	SD	M	SD
		28.5	12.8	27.1	12.2	33.2	15.5

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S1.1 Demographics (Cont.)

		Study 1		Study 2		Study 3	
		Number	%	Number	%	Number	%
Ethnic Origin	European/ Caucasian			1046	67.50%	816	71.50%
	Hispanic			159	10.30%	117	10.20%
	Other			93	6.00%	72	6.30%
	Asian			77	5.00%	31	2.70%
	Mixed			71	4.60%	45	3.90%
	African American			88	5.70%	50	4.40%
	Middle Eastern/North African			16	1.00%	11	1.00%
	Total			1550	100.00%	1142	100%
Education (in Years)		L	H	L	H	L	H
		9	21	8	26	6	28
		M	SD	M	SD	M	SD
		15.2	1.7	14.8	1.9	15.3	2.4
Personal Annual Income (USD)		L	H	L	H	L	H
				0	500,000	0	330000
		M	SD	M	SD	M	SD
				26,770	42,840	31437	41539

S1.1 Demographics (Cont.)

		Study 1		Study 2			Study 3		
		Number	%	Number	%	Mean Income	Number	%	Mean Income
Work Status	Not Working	N/A	N/A	440	28.40%	$4,102	428	37.50%	$6,035
	Part-Time	N/A	N/A	565	36.50%	$13,499	254	22.20%	$16,540
	Full Time	N/A	N/A	545	35.20%	$58,623	460	40.30%	$63,103
	Total			1550	100		1142	100.00%	
Student Status	Not a Student	N/A	N/A	572	36.90%		603	52.80%	
	Part-Time	N/A	N/A	89	5.70%		52	4.60%	
	Full Time	N/A	N/A	889	57.40%		487	42.60%	
				1550	100.00%		1142	100.00%	
Religious Affiliation	Christianity	318	68.40%	865	55.80%		559	48.90%	
	Spiritual	55	11.80%	267	17.20%		246	21.50%	
	Atheist/Agnostic	60	12.90%	177	11.40%		158	13.80%	
	Other	18	3.90%	146	9.40%		106	9.30%	
	Buddhism	5	1.10%	15	1.00%		34	3.00%	
	Judaism	6	1.30%	39	2.50%		22	1.90%	
	Islam	3	0.60%	23	1.50%		12	1.10%	
	Hinduism	0	0	18	1.20%		5	0.40%	
	Total	465	100.00%	1550	100.00%		1142	100.00%	

S1.1 Demographics (Cont.)

		Study 1		Study 2		Study 3			
				Number	%	Number	%		
Meditation (Lifetime Hours)		L	H	L	H	Seated Meditation		Moving Meditation (yoga, walking meditation, tai chi, etc)	
		0	24000			L	H	L	H
		M	SD	M	SD	0	20000	0	50000
		321.3	1751			M	SD	M	SD
						206	1346.5	303.8	1972.8
New Jersey Residency	NJ resident			1386	89.40%	701	61.40%		
	Out of state			164	10.60%	441	38.60%		
	Total			1550	100%	1142	100%		
United States Residency	US Resident					935	81.90%		
	Non-US Resident					207	18.10%		
	Total					1142	100%		
Alcoholic Beverages Consumed in a Typical Week				L	H	L	H		
				0	63	0	63		
				M	SD	M	SD		
				3.48	5.4	3.48	5.3		

S1.2 Psychoactive drug use (non-medical)

	Study 1	Study 2				Study 3					
		Never	Once or Twice	Multiple Times	Ever	Lifetime Use (%)	Never	Once or Twice	Multiple Times	Ever	Lifetime Use (%)	Lifetime Never Used (%)
Opioids		1458	45	47	92	5.90%	1047	*	*	95	8.30%	91.70%
Psychomotor Stimulates		1219	168	163	331	21.40%	884	*	*	258	22.60%	77.40%
Cannabis		580	330	640	970	62.60%	398	*	*	744	65.10%	34.90%
MDMA		1397	95	58	153	9.90%	1013	*	*	129	11.30%	88.70%
Psychedelics		1310	125	115	240	15.50%	950	*	*	192	16.80%	83.20%
Sedatives		1330	128	92	220	14.20%	944	*	*	198	17.30%	82.70%
Dissassociatives/ Ketamine		1509	25	16	41	2.60%	1097	*	*	45	3.90%	96.10%

*Changed to dichotomous drug usage data because in Study 2, middle responses provided no additional insight

= Not asked

0.83% Used psychedelics but not other drugs (except alcohol)

0.18% Used psyd only (except alcohol)

Study 3 Only			
Psychedelic Specific Questions		Number	%
Primary Motive for Use (Psychedelic Users Only)	Fun/Recreation	153	70.6
	Growth	60	29.4
Belief that Psychedelics Could Be Used for Beneficial Purposes (Full Sample)	Yes	593	51.6
	No	549	48.4
Belief that Psychedelics Could Be Used for Beneficial Purposes (Psychedelic Users)	Yes	164	85.4
	No	28	14.6
Belief that Psychedelics Could Be Used for Beneficial Purposes (Psychedelic Non Users)	Yes	429	45.2
	No	521	54.8

Supplement 2. *Scales and items across all three studies*

Scale	Measure	Abbrev-iation	# of Items	Cronbach's α	Original Source	Study 1	Study 2	Study 3
Adult Self Transcendence Scale	Self-Transcendence	ASTI	10	0.84	Levenson, Jennings, Aldwin, & Shiraishi 2005; Vandecreek & Nye, 1993; Wayment et al., 2014	Included		
Death Transcendence Scale (Mysticism Subscale)	Self-Transcendence	MYST	5	0.94	Vandecreek, & Nye, 1993	Included		
Quite Ego Scale (Inclusive Identity Subscale)	Self-Transcendence	IIS	3	0.81	Wayment, Bauer, & Sylaska, 2014	Included	Included	
Philadelphia Mindfulness Scale (Short Awareness Subscale)	Awareness	PM.awa	3	0.77	Cardaciotto et al., 2008	Included		
Philadelphia Mindfulness Scale (Short Acceptance Subscale)	Equanimity	PM.acc (EQ)	4	0.84	Cardaciotto et al., 2008	Included	Included	Included
Four Sublime Attitudes Scale	Kindness	FSA.	8	0.82	In Progress, Validation Data Avalible	Included		
Self-Compassion Scale	Self-Compassion	SCS.sf	12	0.86	Raes et al., 2011	Included		
Scales of Postitive Negative Affect (Shortened Version)	Affect		6 Overall	N/A	Diener et al. 1985	Included		
Positive	Positive Affect	SPANE.p	3	0.9	Diener et al. 1985	Included		
Negative	Negative Affect	SPANE.n	3	0.83	Diener et al. 1985	Included		
Overall Satisfaction with Life Scale	Life Satisfaction	SWLS	6	0.89	Diener et al. 2010	Included		
Single Item Self-Transcendence	Self-Transcendence	SIST	1	N/A	Saroglou & Munoz-Garcia, 2008		Included	Included
Mindful Attention Awareness Scale (Short Version)	Mindfulness	MAAS	6	0.87	Johnson et al., 2012		Included	Included
Tendency to Forgive Scale	Forgiveness	TTF	4	0.76	Brown, 2003		Included	Included
Gratitude Scale	Gratitude	G3	3	0.93	Emmons, McCullough, & Tsang, 2003; Emmons & McCullough, 2003		Included	Included
Brief Humility Scale	Humility	HUM	3	0.57	Kruse et al., 2017		Included	
Dispositional Greed Scale	Greed	DGS	4	0.84	Krekels & Pandelaere, 2015		Included	

Supplement 2. *Scales and items across all three studies (Cont.)*

Scale	Measure	Abbrev-iation	# of Items	Cronbach's α	Original Source	Study 1	Study 2	Study 3
Malicious Envy Scale	Envy	MES	3	0.87	Lange & Crusius, 2015		Included	
Positive and Negative Affect Schedule (Extended Version)	Hate	HATE	3	0.89	Watson & Clark, 1994; Lange & Crusius, 2015		Included	
Duke-UNC Functional Social Support Questionnaire	Perceived Social Support	FSSQ3	3	0.92	Saracino et al., 2015		Included	
Single Item Volunteering Frequency	Volunteering Frequency (Days per month)	VOL	1	N/A	Ad Hoc		Included	
Compassionate Attitude Scale of Altruism	Altruism	CASA	3	0.86	Spinella, prep., validity data avalible			Included
Unconditional Self Kindness Scale	Self-kindness	USKS	3	0.8	Smith et al. 2018			Included
Benefit Reminding Scale	Benefit Reminding (the tendency to cognitively reframe difficulties as opportunities for development and learning)	BRS	4	0.87	Affleck, & Tennen, 1996			Included
Elevation Scale	Elevation (the tendency to be uplifted by witnessing the kind virtuous actions of others)	ELEV	5	0.91	Schnall, Roper, & Fessler, 2010			Included
Awe, Wonder, and Beauty Scale (Short Version of AWE-S)	Awe	AWE3	3	0.79	Yaden et. al., 2019			Included
Patient Health Questionnaire	Mental Health	PHQ4	4		Kroenke et al., 2009			
Anxiety	Anxiety	PHQ.a	2	0.88	Kroenke et al., 2009			Included
Depression	Depression	PHQ.d	2	0.84	Kroenke et al., 2009			Included
Perceived Social Support*	Social Support	SIPSS	1	N/A	Atroszko et al., 2015			Included
Single Item Meaning in Life	Meaning in Life	SIMIL	1	N/A	Ad Hoc			Included
Single Item Life Satisfaction	Life Satisfaction	SILS	1	N/A	Ad Hoc			Included

Supplement 2. *Scales and items across all three studies (Cont.)*

Scale	Measure	Abbrev-iation	# of Items	Cronbach's α	Original Source	Study 1	Study 2	Study 3
Psychological Distress Scale	Distress		5 Overall	N/A	Ad Hoc			
Single Item Perceived Physical Health Scale	Perceived Health	SIPH	1	N/A	Smith et al., 1999		Included	Included
Single Item State Helplessness*	Helplessness	SISH	1	N/A	Ad Hoc			Included
Single Item State Boredom*	Boredom	SISB	1	N/A	Ad Hoc			Included
Single Item State Pain*	Pain	SISP	1	N/A	Hawker et al., 2011			Included
Single Item Subjective Sleep Quality*	Sleep Quality	SISQ	1	N/A	Atroszko et al., 2015		Included	Included
Fear of the COVID-19 Pandemic*	COVID Fear	SIPF	1	N/A	Ad Hoc			Included
Financial Fear of the COVID-19 Pandemic*	COVID Financial Fear	SIFF	1	N/A	Ad Hoc			Included
Lifetime Use of Psychoactive Drugs Panel**	Drug Use	N/A	7	N/A	Ad Hoc		Included	Included

All measures, unless otherwise specified, used a 7-point Likert-type scale to provide consistency across items.

* Employs a 10 point Likert Scale (anchors: 1-Not at All, 10-Very Much)

** scale covering the non-medical use of cannabis, opioids, sedatives, MDMA, dissociatives, and major stimulants, using a 3-point rating scale (Never, Once or twice, Multiple times)

Sample Items

Scale	Abbreviation	# of Items	Item Example
Compassionate Attitude Scale of Altruism	CASA	3	"When I help others, I feel like I am a part of something bigger," "I like making a contribution to the world around me," "Helping people helps me feel a little happier and more connected to others."
Unconditional Self Kindness Scale	USKS	3	"How kind and patient are you with yourself when you: 1.) …are criticized or rejected by another person? 2.) …become aware of your personal flaws and imperfections? 3.) …fail or make a mistake?")

Supplement 2. *Scales and items across all three studies (Cont.)*

Scale	Abbreviation	# of Items	Sample Items Item Example
Benefit Reminding Scale	BRS	4	"When something unfortunate occurs, I recognize that there is something to be learned from it."
Awe, Wonder, and Beauty Scale	AWE3	3	"I feel a sense of wonder almost every day."
Perceived Social Support*	SIPSS	1	"How much caring and support do you get from family and friends?"
Psychological Distress Scale	PHQ-5	5	"Answer the following questions for the last two weeks: {SISH,SISB,SISP,SISQ,SIPH}"
Single Item State Helplessness*	SISH	1	"I feel helpless"
Single Item State Boredom*	SISB	1	"I feel boredom"
Single Item State Pain*	SISP	1	"How much overall physical pain have you felt?"
Single Item Subjective Sleep Quality*	SISQ	1	"What has the overall quality of your sleep been?"
Fear of the COVID-19 Pandemic*	SIPF	1	"How fearful are you in general about the Coronavirus outbreak?"
Financial Fear of the COVID-19 Pandemic*	SIFF	1	How concerned are you about your financial status due to the quarantine?"

Supplement 3. *Drug use correlations and analysis*

Study 2 Spearman's rho

	Opioids	Stimulants	Cannabis	MDMA	Psychedelics	Sedatives	Dissociatives	Alcohol
Opioids	-							
Stimulants	.39	-						
Cannabis	.22	.49	-					
MDMA	.47	.50	.33	-				
Psychedelics	**.41**	**.56**	**.43**	**.56**	-			
Sedatives	.49	.48	.31	.43	**.39**	-		
Dissociatives	.30	.25	.17	.35	**.30**	.28	-	
Alcohol	.07	.33	.36	.19	**.19**	.16	.09	-
Opioids	-							
Stimulants	.000	-						
Cannabis	.000	.000	-					
MDMA	.000	.000	.000	-				
Psychedelics	.000	.000	.000	.000	-			
Sedatives	.000	.000	.000	.000	.000	-		
Dissociatives	.000	.000	.000	.000	.000	.000	-	
Alcohol	.005	.000	.000	.000	.000	.000	.000	-

Supplement 3. *Drug use correlations and analysis (Cont.)*

Pearson Partial Correlations

Controlling for: age, sex, education, ethnicity, income, religious affiliation, residency, student status, work status

df = 1516

		Opioids	Stimulants	Cannabis	MDMA	Psychedelics	Sedatives	Dissociatives	Alcohol
Correlations	**Opioids**	-							
28	**Stimulants**	.43	-						
Bonferroni	**Cannabis**	.21	.46	-					
.002	**MDMA**	.50	.51	.30	-				
	Psychedelics	**.42**	**.54**	**.40**	**.59**	**-**			
	Sedatives	.54	.53	.30	.47	**.42**	-		
	Dissociatives	.36	.29	.16	.41	**.35**	.32	-	
	Alcohol	.05	.32	.35	.19	**.19**	.16	.09	-
	Opioids	-							
	Stimulants	.000	-						
	Cannabis	.000	.000	-					
	MDMA	.000	.000	.000	-				
	Psychedelics	.000	.000	.000	.000	-			
	Sedatives	.000	.000	.000	.000	.000	-		
	Dissociatives	.000	.000	.000	.000	.000	.000	-	
	Alcohol	.039	.000	.000	.000	.000	.000	.001	-

Supplement 3. *Drug use correlations and analysis (Cont.)*

Study 3 (N = 1142)

Spearman Correlations (Ordinal scale data)

	Opioid	Stimulants	Cannabis	MDMA	Sedatives	Dissociatives	Psychedelics	Alcohol
Opioid	-							
Stimulants	.43	-						
Cannabis	.27	.48	-					
MDMA	.40	.52	.38	-				
Sedatives	.42	.43	.30	.41	-			
Dissociatives	.29	.36	.21	.47	.32	-		
Psychedelics	**.32**	**.51**	**.48**	**.53**	**.36**	**.36**	-	
Alcohol	-.01	.12	.25	.02	.10	.00	-.01	-

Spearman Correlations **p values**

	Opioid	Stimulants	Cannabis	MDMA	Sedatives	Dissociatives	Psychedelics	Alcohol
Opioid	.	.000	.000	.000	.000	.000	.000	.867
Stimulants	.000	.	.000	.000	.000	.000	.000	.000
Cannabis	.000	.000	.	.000	.000	.000	.000	.000
MDMA	.000	.000	.000	.	.000	.000	.000	.509
Sedatives	.000	.000	.000	.000	.	.000	.000	.001
Dissociatives	.000	.000	.000	.000	.000	.	.000	.939
Psychedelics	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.**	**.755**
Alcohol	.867	.000	.000	.509	.001	.939	.755	.

	Psychedelics	
	rs	*p*
Opioid	.32	< .001
Stimulants	.51	< .001
Cannabis	.48	< .001
MDMA	.53	< .001
Sedatives	.36	< .001
Dissociatives	.36	< .001
Alcohol	-.01	0.867

Supplement 3. *Drug use correlations and analysis (Cont.)*

PSYD users only

Correlation Between Measures and Frequency of Psychedelic Use				**DRUG.psyd.freq**	
Benjamini Hochberg - control for multiple correlations					
		rho	*p (2-tailed)*	Rank (i)	(i/m)*Q
Mindfulness	**MAAS6**	**.24**	**.001**	**1**	**.00**
Equanimity	**EQ**	**.19**	**.010**	**2**	**.00**
Forgiveness	**TTF**	**.19**	**.011**	**3**	**.01**
Self-Transcendence	**SI.transc**	**.15**	**.039**	**4**	**.01**
Sitting med lifetime	**sitmed**	**.14**	**.050**	**5**	**.01**
Altruism	CASA	.11	.119	6	.01
Gratitude	G3	.10	.155	7	.01
Moving med lifetime	movmed	.10	.171	8	.02
Life satisfaction	SILS	.08	.290	9	.02
State Pain	SISP	.07	.317	10	.02
Awe	AWE3	.07	.349	11	.02
Sleep quality	SISQ	.06	.376	12	.03
Self-kindness	Self.Kind	.04	.578	13	.03
Perceived Health	SIPH	.03	.664	14	.03
Meaning	SIMIL	.03	.714	15	.03
Benefit Reminding*	**BRS**	**.02**	**.827**	**16**	**.03**
Elevation	*ELEV*	*-.04*	*.557*	*17*	*.04*
Perceived Support*	**SIPSS**	**-.05**	**.537**	**18**	**.04**
Anxiety	PHQ.anx	-.06	.391	19	.04
State helplessness	SISH	-.09	.211	20	.04
Financial Fear	SIFF	-.10	.176	21	.04
Depression	PHQ.dep	-.11	.149	22	.05
State boredom	**SISB**	**-.18**	**.015**	**23**	**.05**
Pandemic fear	**SIPF**	**-.20**	**.006**	**24**	**.05**

i	#	*rank of correlation*
m	24	*number of tests*
Q	0.05	*false discovery rate*

*All are in the predicted direction except Benefit Reminding and Perceived Support

Supplement 4. *MANCOVAs and ANOVAs for all three studies*

S4.1 Study 1 MANCOVAs and ANCOVA

Study 1 MANCOVAs and ANCOVA

	Significant and Non-Significant Covariates			**Psychedelics**			
Demo	Effect	Wilks' Lambda	F	Hypothesis df	Error df	*p*	ηp²
Age	DEMO.Age	.871	6.02	11	445	**.000**	**.13**
Sex	DEMO.Sex.num	.938	2.67	11	445	**.002**	**.06**
Education	DEMO.Ed	.936	2.77	11	445	**.002**	**.06**
Orthodox religious affiliation	DEMO.orthodox.rel	.933	2.89	11	445	**.001**	**.07**
Use anti-anxiety medications	DEMO.antianx	.970	1.25	11	445	.255	.03
Use anti-depressant medications	DEMO.antidep	.976	1.01	11	445	.433	.02
Lifetime meditation hours	DEMO.total.life.hrs.tr	.920	3.54	11	445	**.000**	**.08**
Psychedelic use	DEMO.PSYD.user	.916	3.71	11	445	**.000**	**.08**

		Psychedelic Use vs Measures									
		Psychedelic User		Non-User							
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	ηp²	**Predicted?**	Size	Driection
Mysticism	T.MYST	54.1	1.3	49.2	.5	6.47	.000	.10	Yes	Medium	↑
Inclusive Identity	T.IIS	53.9	1.2	49.3	.5	8.54	.000	.13	Yes	Medium	↑
Self-Transcendence	T.ASTI	50.7	1.2	49.7	.5	6.32	.000	.10	Yes	Medium	↑
Equanimity	T.PMacc	53.0	1.2	49.6	.5	7.19	.000	.11	Yes	Medium	↑
Mindful Awareness	T.PMawa2	50.6	1.2	50.0	.5	1.20	.299	.02	-	n.s.	
Four Sublime Attitudes	T.FSA.total	52.1	1.3	49.6	.5	3.97	.000	.07	Yes	Medium	↑
Self-Compassion	T.SCStot	53.2	1.2	49.4	.5	9.64	.000	.15	Yes	Large	↑
Life Satisfaction	T.SWLS	50.3	1.2	50.0	.5	5.87	.000	.09	Yes	Medium	↑
Positive Affect	T.SPANEp	50.5	1.2	49.8	.5	3.81	.000	.06	Yes	Medium	↑
Negative Affect	T.SPANEn	49.5	1.2	50.1	.5	2.46	.013	.04	Yes	Small	↓

S4.1 Study 1 MANCOVAs and ANCOVA (Cont.)

ANCOVA - Psychedelic Use vs Meditation Experience

Tests of Between-Subjects Effects
Dependent Variable: DEMO.total.life.hrs.tr

Users: n = 72
Non-users: n = 393

Source		Type III Sum of Squares	df	Mean Square	F	p	Partial Eta Squared
Intercept	Hypothesis	7.545	1	7.545	26.993	.000	0.722
	Error	2.905	10.391	.280a			
DEMO.Age	Hypothesis	0.077	1	0.077	0.391	.532	0.001
	Error	90.944	460	.198b			
DEMO.Sex.num	Hypothesis	1.249	1	1.249	6.316	.012	0.014
	Error	90.944	460	.198b			
DEMO.Ed	Hypothesis	3.422	1	3.422	17.307	.000	0.036
	Error	90.944	460	.198b			
DEMO.Halluc.dichot	Hypothesis	3.855	1	3.855	19.501	.000	0.041
	Error	90.944	460	.198b			

a .022 MS(DEMO.Halluc.dichot) + .978 MS(Error)
b MS(Error)

DEMO.Halluc.dichot

Dependent Variable: DEMO.total.life.hrs.tr

DEMO.Halluc.dichot	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
0	-.611*	0.022	-0.655	-0.567
1	-.357*	0.053	-0.461	-0.253

*Covariates appearing in the model are evaluated at the following values: DEMO.Age = 28.38, DEMO.Sex.num = .28, DEMO.Ed = 15.186.

Report
DEMO.total.life.hrs

DEMO.Halluc.dichot	Mean	Std. Deviation
0	230.996	1583.8118
1	813.972	2428.3398
Total	321.263	1751.0296

S4.2 Study 2 MANCOVAs

Significant and Non-Significant Covariates **Psychedelics**

Demo	Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
Age	DEMOAgetr	.949	5.77	14	1496	.000	**.05**
Sex	DEMOSexnum	.926	8.53	14	1496	.000	**.07**
Education	DEMOEdnontr	.980	2.22	14	1496	.006	**.02**
Ethnicity	DEMOEthcauc	.944	6.35	14	1496	.000	**.06**
Religious Affiliation	DEMORelaffil	.966	3.82	14	1496	.000	**.03**
NJ Residence	DEMONJ	.992	.90	14	1496	.560	.01
Income	DEMOIncometr	.993	.74	14	1496	.735	.01
Student status	DEMOStudentnum	.971	3.20	14	1496	.000	**.03**
Work status	DEMOWorknum	.992	.90	14	1496	.562	.01
Opioid use	TDUFopdi	.990	1.03	14	1496	.416	.01
MDMA	TDUFstimdi	.991	1.00	14	1496	.455	.01
Sedative	TDUFcbdi	.971	3.24	14	1496	.000	**.03**
Dissociatives	TDUFmdmadi	.990	1.04	14	1496	.413	.01
Alcohol	TDUFseddi	.976	2.62	14	1496	.001	**.02**
Major Stimulants	TDUFketdi	.992	.88	14	1496	.582	.01
Cannabis	TDUFalc	.968	3.52	14	1496	.000	**.03**
Psychedelic	TDUFpsydi	.978	2.38	14	1496	.003	**.02**

Psychedelic Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

		Psychedelic		No Psychedelic						
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**
Mindfulness	T.MAAS	51.5	.8	49.6	.3	8.60	.000	.09	Medium	**Adaptive** ↑
Equanimity	T.EQ	50.8	.8	49.8	.3	10.07	.000	.10	Medium	**Adaptive** ↑
Gratitude	T.G3	51.2	.8	49.7	.3	3.58	.000	.04	Small	**Adaptive** ↑
Forgiveness	T.TTF	50.6	.8	49.9	.3	3.91	.000	.04	Small	**Adaptive** ↑
Humility	T.HUM	51.9	.8	49.7	.3	3.23	.000	.04	Small	**Adaptive** ↑
Perceived Support	T.FSSQ	49.5	.8	50.4	.3	2.42	.001	.03	Small	**Maladaptive** ↓
Inclusive Identity	T.IIS	51.1	.8	49.8	.3	3.26	.000	.04	Small	**Adaptive** ↑
Self-transcendence	T.SIST	52.7	.8	49.4	.3	4.63	.000	.05	Small	**Adaptive** ↑
Sleep Quality	T.SISQ	50.2	.8	50.1	.3	1.51	.082	.02	n.s.	- -
Perceived Health	T.SIPH	51.1	.8	50.2	.3	1.69	.039	.02	Small	**Adaptive** ↑
Volunteering	T.VOL	50.4	.8	49.9	.3	2.51	.001	.03	Small	**Adaptive** ↑
Greed	T.DGS	48.1	.8	50.3	.3	13.36	.000	.13	Medium	**Adaptive** ↓
Envy	T.MES	48.0	.8	50.0	.3	9.23	.000	.09	Medium	**Adaptive** ↓
Hate	T.HATE	48.7	.8	50.0	.3	9.84	.000	.10	Medium	**Adaptive** ↓

S4.2 Study 2 MANCOVAs (Cont.)

Significant and Non-Significant Covariates **Cannabis**

Demo	Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
Age	DEMOAgetr	.949	5.77	14	1496	.000	**.05**
Sex	DEMOSexnum	.926	8.53	14	1496	.000	**.07**
Education	DEMOEdnontr	.980	2.22	14	1496	.006	**.02**
Ethnicity	DEMOEthcauc	.944	6.35	14	1496	.000	**.06**
Religious Affiliation	DEMORelaffil	.966	3.82	14	1496	.000	**.03**
NJ Residence	DEMONJ	.992	.90	14	1496	.560	.01
Income	DEMOIncometr	.993	.74	14	1496	.735	.01
Student status	DEMOStudentnum	.971	3.20	14	1496	.000	**.03**
Work status	DEMOWorknum	.992	.90	14	1496	.562	.01
Opioid use	TDUFopdi	.990	1.03	14	1496	.416	.01
MDMA	TDUFstimdi	.991	1.00	14	1496	.455	.01
Sedative	TDUFmdmadi	.990	1.04	14	1496	.413	.01
Dissociatives	TDUFseddi	.976	2.62	14	1496	.001	**.02**
Alcohol	TDUFketdi	.992	.88	14	1496	.582	.01
Major Stimulants	TDUFalc	.968	3.52	14	1496	.000	**.03**
Psychedelic	TDUFpsydi	.978	2.38	14	1496	.003	**.02**
Cannabis	TDUFcbdi	.971	3.24	14	1496	.000	**.03**

Cannabis Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

		Cannabis		No Cannabis						
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**
Mindfulness	T.MAAS	49.8	.3	50.1	.4	8.60	.000	.09	Medium	Mal-adaptive ↓
Equanimity	T.EQ	49.6	.3	50.5	.4	10.07	.000	.10	Medium	Mal-adaptive ↓
Gratitude	T.G3	50.1	.3	49.7	.5	3.58	.000	.04	Small	Adaptive ↑
Forgiveness	T.TTF	49.7	.3	50.6	.5	3.91	.000	.04	Small	Mal-adaptive ↓
Humility	T.HUM	50.5	.3	49.4	.4	3.23	.000	.04	Small	Adaptive ↑
Perceived Support	T.FSSQ	50.2	.3	50.4	.5	2.42	.001	.03	Small	Mal-adaptive ↓
Inclusive Identity	T.IIS	50.7	.3	48.8	.5	3.26	.000	.04	Small	Adaptive ↑
Self-transcendence	T.SIST	50.4	.3	49.2	.4	4.63	.000	.05	Small	Adaptive ↑
Sleep Quality	T.SISQ	50.0	.3	50.2	.5	1.51	.082	.02	n.s.	- -
Perceived Health	T.SIPH	50.5	.3	50.1	.5	1.69	.039	.02	Small	Adaptive ↑
Volunteering	T.VOL	49.3	.3	51.0	.5	2.51	.001	.03	Small	Mal-adaptive ↓
Greed	T.DGS	50.5	.3	49.1	.4	13.36	.000	.13	Medium	Mal-adaptive ↑
Envy	T.MES	49.6	.3	50.0	.4	9.23	.000	.09	Medium	Adaptive ↓
Hate	T.HATE	50.2	.3	49.0	.4	9.84	.000	.10	Medium	Mal-adaptive ↑

S4.2 Study 2 MANCOVAs (Cont.)

Significant and Non-Significant Covariates **Alcohol**

Demo	Effect	Wilks' Lambda	F	Hypoth -esis df	Error df	*p*	ηp²
Age	DEMOAgetr	.948	5.81	14	1496	.000	**.05**
Sex	DEMOSexnum	.924	8.84	14	1496	.000	**.08**
Education	DEMOEdnontr	.980	2.19	14	1496	.006	**.02**
Ethnicity	DEMOEthcauc	.945	6.23	14	1496	.000	**.06**
Religious Affiliation	DEMORelaffil	.965	3.82	14	1496	.000	**.04**
NJ Residence	DEMONJ	.992	.90	14	1496	.562	.01
Income	DEMOIncometr	.993	.73	14	1496	.750	.01
Student status	DEMOStudentnum	.971	3.21	14	1496	.000	**.03**
Work status	DEMOWorknum	.993	.81	14	1496	.663	.01
Opioid	TDUFopdi	.991	1.01	14	1496	.438	.01
Major Stimulants	TDUFstimdi	.989	1.17	14	1496	.295	.01
Cannabis	TDUFcbdi	.970	3.28	14	1496	.000	**.03**
MDMA	TDUFmdmadi	.990	1.13	14	1496	.324	.01
Psychedelic	TDUFpsydi	.978	2.42	14	1496	.002	**.02**
Sedative	TDUFseddi	.976	2.62	14	1496	.001	**.02**
Dissociatives	TDUFketdi	.992	.88	14	1496	.579	.01
Alcohol	**TDUFalcdichot**	**.967**	**3.66**	**14**	**1496**	**.000**	**.03**

Alcohol Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

DV		Alchoho l M	SE	No Alchoho l M	SE	*F*	*p*	ηp²	Size	Direction	
Mindfulness	MAAS	49.8	.3	50.1	.5	8.31	.000	.09	Medium	Mal-adaptive	↓
Equanimity	EQ	49.6	.3	50.6	.5	10.07	.000	.10	Medium	Mal-adaptive	↓
Gratitude	G3	49.9	.3	50.0	.5	3.54	.000	.04	Small	Mal-adaptive	↓
Forgiveness	TTF	50.3	.3	49.4	.5	3.99	.000	.04	Small	Adaptive	↑
Humility	HUM	49.6	.3	51.1	.5	3.13	.000	.03	Small	Mal-adaptive	↓
Perceived Support	FSSQ	50.4	.3	50.0	.5	2.45	.001	.03	Small	Adaptive	↑
Inclusive Identity	IIS	50.0	.3	49.9	.5	3.24	.000	.04	Small	Adaptive	↑
Self-transcendence	SIST	49.9	.3	50.1	.5	4.59	.000	.05	Small	Mal-adaptive	↓
Sleep Quality	SISQ	50.5	.3	49.4	.5	1.60	.057	.02	n.s.	-	-
Perceived Health	SIPH	50.8	.3	49.4	.5	2.05	.007	.02	Small	Adaptive	↑
Volunteering	VOL	49.8	.3	50.2	.5	2.40	.001	.03	Small	Mal-adaptive	↓
Greed	DGS	50.8	.3	48.4	.4	12.97	.000	.13	Medium	Mal-adaptive	↑
Envy	MES	50.3	.3	48.6	.5	8.97	.000	.09	Medium	Mal-adaptive	↑
Hate	HATE	49.9	.3	49.5	.5	9.59	.000	.10	Medium	Mal-adaptive	↑

S4.3 Study 3 MANCOVAs

S4.3.1 MANCOVA Psychedelic Users (182) vs Non-Users (826)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DEMOagetr	.971	1.28	22	956	.178	.03
DEMOsexnum	.811	10.16	22	956	.000	**.19**
DEMOeductr	.947	2.42	22	956	.000	**.05**
DEMOzipNJ	.975	1.12	22	956	.316	.03
DEMOUSA	.981	.83	22	956	.690	.02
DEMOincometr	.960	1.80	22	956	.013	**.04**
DEMOethnicdishot	.942	2.66	22	956	.000	**.06**
Demoreligdichot	.963	1.69	22	956	.024	**.04**
DEMOstudentnum	.962	1.71	22	956	.023	**.04**
DEMOworknum	.937	2.90	22	956	.000	**.06**
DEMOstudentdichnum	.979	.94	22	956	.547	.02
ITEMLifetimesitmedtr	.954	2.10	22	956	.002	**.05**
ITEMLifetimemovmedtr	.973	1.21	22	956	.229	.03
Drugpsydbeneficial	.948	2.39	22	956	.000	**.05**
DrugOPqu	.979	.93	22	956	.556	.02
DrugSTIMqu	.977	1.01	22	956	.445	.02
DrugCANqu	.949	2.31	22	956	.001	**.05**
DrugMDMAqu	.976	1.05	22	956	.397	.02

Psychedelic Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

		Used		Never Used							
DV		M	SE	M	SE	*F*	*p*	ηp²	Size	Direction	
Mindfulness	MAAS6	50.4	.9	50.0	.3	5.93	.000	.15	Large	Adaptive	↑
Equanimity	EQ	52.0	.9	49.6	.3	6.36	.000	.16	Large	Adaptive	↑
Self-Kindness	USKS3	51.4	.9	49.7	.4	4.23	.000	.12	Medium	Adaptive	↑
Altruism	CASA	52.2	.9	49.6	.4	3.46	.000	.10	Medium	Adaptive	↑
Awe	AWE3	53.2	.9	49.2	.3	3.69	.000	.10	Medium	Adaptive	↑
Elevation	ELEV	51.6	.9	49.6	.4	3.46	.000	.10	Medium	Adaptive	↑
Benefit Reminding	BRS	52.0	.9	49.6	.4	2.62	.000	.08	Medium	Adaptive	↑
Gratitude	G3	50.2	.9	49.6	.4	2.78	.000	.08	Medium	Adaptive	↑
Forgiveness	TTF	51.4	.9	49.7	.3	3.06	.000	.09	Medium	Adaptive	↑
Self-Transcendence	SIST	53.4	.9	49.6	.3	4.80	.000	.13	Medium	Adaptive	↑
Perceived Support	SIPSS	51.2	.9	49.8	.4	1.75	.008	.05	Small	Adaptive	↑
Meaning in Life	SIMIL	52.4	.9	49.5	.4	2.98	.000	.08	Medium	Adaptive	↑
Life Satisfaction	SILS	51.0	.9	49.9	.4	3.78	.000	.10	Medium	Adaptive	↑
Perceived Health	SIPH	51.1	.9	49.8	.4	2.48	.000	.07	Medium	Adaptive	↑
Sleep	SISQ	51.6	.9	49.2	.4	3.24	.000	.09	Medium	Adaptive	↑
Anxiety	PHQ.anx	49.0	.8	50.3	.3	6.50	.000	.17	Large	Adaptive	↓
Depression	PHQ.dep	48.5	.8	50.0	.3	6.12	.000	.16	Large	Adaptive	↓

S4.3.1 MANCOVA Psychedelic Users (182) vs Non-Users (826) (Cont.)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DrugSEDqu	.962	1.74	22	956	.019	**.04**
DrugDISSOCqu	.971	1.31	22	956	.155	.03
DRUGOplife	.977	1.03	22	956	.418	.02
DRUGStimlife	.971	1.30	22	956	.161	.03
DRUGCanlife	.963	1.65	22	956	.031	**.04**
DRUGMDMAlife	.968	1.45	22	956	.083	.03
DRUGSedlife	.975	1.13	22	956	.305	.03
DRUGDissoclife	.966	1.55	22	956	.051	.03
CVQUlivealone	.984	.71	22	956	.832	.02
DRUGAlcusual	.981	.82	22	956	.703	.02
DrugALCqu	.985	.65	22	956	.887	.02
Drugpsydusedever	.952	2.17	22	956	.001	**.05**

Psychedelic Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

		Used		Never Used							
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**	
Helplessness	SISH	48.3	.9	50.2	.3	4.64	.000	.13	Medium	Adaptive	⬇
Boredom	SISB	47.0	.8	49.8	.3	9.43	.000	.23	Large	Adaptive	⬇
Pain Perception	SISP	49.6	.9	50.1	.4	2.28	.000	.07	Medium	Adaptive	⬇
Pandemic Fear	SIPF	49.6	.9	49.8	.4	4.33	.000	.12	Medium	Adaptive	⬇
Financial Fear	SIFF	50.12	.9	50.10	.3	3.29	.000	.09	Medium	Mal-adaptive	⬆

S4.3.2 MANCOVA Cannabis Users (675) vs Cannabis Non-Users (333)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DEMOagetr	.970	1.37	22	956	.121	.03
DEMOsexnum	.813	9.98	22	956	.000	**.19**
DEMOeductr	.946	2.49	22	956	.000	**.05**
DEMOzipNJ	.975	1.11	22	956	.328	.03
DEMOUSA	.980	.88	22	956	.627	.02
DEMOincometr	.959	1.84	22	956	.011	**.04**
DEMOethnicdishot	.943	2.62	22	956	.000	**.06**
Demoreligdichot	.963	1.69	22	956	.025	**.04**
DEMOstudentnum	.961	1.77	22	956	.016	**.04**
DEMOworknum	.943	2.61	22	956	.000	**.06**
DEMOstudentdichnum	.976	1.05	22	956	.396	.02
ITEMLifetimesitmedtr	.955	2.03	22	956	.003	**.05**
ITEMLifetimemovmedtr	.976	1.07	22	956	.369	.02
CVQUlivealone	.986	.60	22	956	.926	.01
CVQUhighrisk	.920	3.76	22	956	.000	**.08**
DrugOPqu	.979	.95	22	956	.525	.02

Cannabis Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

DV		Cannabis M	SE	No Cannabis M	SE	*F*	*p*	ηp²	Size	Direction	
Mindfulness	T.MAAS6	49.8	.4	50.4	.6	5.96	.000	.16	Large	Mal-adaptive	↓
Equanimity	T.EQ	49.5	.4	51.2	.6	6.39	.000	.16	Large	Mal-adaptive	↓
Self-Kindness	T.Self.Kind	49.2	.4	51.6	.6	4.18	.000	.11	Medium	Mal-adaptive	↓
Altruism	T.CASA	50.0	.4	50.1	.6	3.37	.000	.09	Medium	Mal-adaptive	↓
Awe	T.AWE3	49.8	.4	50.0	.6	3.73	.000	.10	Medium	Mal-adaptive	↓
Elevation	T.ELEV	49.9	.4	50.0	.6	3.27	.000	.09	Medium	Mal-adaptive	↓
Benefit Reminding	T.BRS	49.9	.4	50.5	.6	2.66	.000	.08	Medium	Mal-adaptive	↓
Gratitude	T.G3	49.7	.4	49.6	.6	2.72	.000	.08	Medium	Adaptive	↑
Forgiveness	T.TTF	49.4	.4	51.2	.6	3.00	.000	.08	Medium	Mal-adaptive	↓
Self-Transcendence	T.SI.transc	50.4	.4	50.2	.6	5.00	.000	.13	Medium	Adaptive	↑
Perceived Support	T.SI.Support	49.5	.4	51.2	.6	2.03	.001	.06	Small	Mal-adaptive	↓
Perceived Health	T.SI.Perc.health	49.3	.4	51.3	.6	3.01	.000	.09	Medium	Mal-adaptive	↓
Sleep Quality	T.SI.Sleep	49.6	.4	51.3	.6	3.81	.000	.11	Medium	Mal-adaptive	↓
Meaning in Life	T.SI.Meaning	49.4	.4	51.3	.6	3.28	.000	.09	Medium	Mal-adaptive	↓
Life Satisfaction	T.SI.Life.Sat	49.3	.4	50.4	.6	3.43	.000	.10	Medium	Mal-adaptive	↓

S4.3.2 MANCOVA Cannabis Users (675) vs Cannabis Non-Users (333) (Cont.)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DrugSTIMqu	.976	1.07	22	956	.371	.02
DrugMDMAqu	.977	1.03	22	956	.422	.02
DrugSEDqu	.963	1.68	22	956	.026	**.04**
DrugDISSOCqu	.973	1.20	22	956	.239	.03
DrugALCqu	.985	.66	22	956	.880	.02
DRUGOplife	.979	.95	22	956	.535	.02
DRUGStimlife	.974	1.16	22	956	.275	.03
DRUGMDMAlife	.967	1.50	22	956	.065	.03
DRUGSedlife	.975	1.12	22	956	.321	.03
DRUGDissoclife	.965	1.58	22	956	.043	**.04**
DRUGAlcusual1_A	.975	1.11	22	956	.334	.03
Drugpsydbeneficial	.945	2.54	22	956	.000	**.06**
Drugpsydusedever	.953	2.15	22	956	.002	**.05**
DRUGCanlife	.952	2.17	22	956	.001	**.05**

Cannabis Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

		Cannabis		No Cannabis						
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**
Anxiety	T.PHQ.anx	50.2	.4	49.9	.6	6.56	.000	.17	Large	Mal-adaptive ↑
Depression	T.PHQ.dep	50.3	.4	48.6	.6	5.97	.000	.16	Large	Mal-adaptive ↑
Helplessness	T.SI.Helpless	50.4	.4	48.8	.6	4.38	.000	.12	Medium	Mal-adaptive ↑
Boredom	T.SI.Bored	49.9	.4	48.1	.5	9.30	.000	.22	Large	Mal-adaptive ↑
Pain Perception	T.SI.Pain	50.7	.4	48.5	.6	3.33	.000	.09	Medium	Mal-adaptive ↑
Pandemic Fear	T.QU.financial	50.4	.4	48.5	.6	4.14	.000	.11	Medium	Mal-adaptive ↑
Financial Fear	T.QU.fear	49.8	.4	50.6	.6	3.80	.000	.11	Medium	Adaptive ↓

S4.3.3 MANCOVA Alcohol Users (693) vs Non-Users (315)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DEMOagetr	.968	1.42	22	956	.096	.03
DEMOsexnum	.811	10.09	22	956	.000	**.19**
DEMOeductr	.947	2.42	22	956	.000	**.05**
DEMOzipNJ	.974	1.15	22	956	.287	.03
DEMOUSA	.981	.82	22	956	.699	.02
DEMOincometr	.960	1.81	22	956	.013	**.04**
DEMOethnicdishot	.944	2.58	22	956	.000	**.06**
Demoreligdichot	.963	1.68	22	956	.025	**.04**
DEMOstudentnum	.963	1.69	22	956	.024	**.04**
DEMOworknum	.939	2.84	22	956	.000	**.06**
DEMOstudentdichnum	.979	.94	22	956	.537	.02
ITEMLifetimesitmedtr	.954	2.11	22	956	.002	**.05**
ITEMLifetimemovmedtr	.973	1.23	22	956	.216	.03
Drugpsydbeneficial	.948	2.37	22	956	.000	**.05**
Drugpsydusedever	.958	1.89	22	956	.008	**.04**
DrugOPqu	.980	.87	22	956	.639	.02
DrugSTIMqu	.980	.87	22	956	.632	.02
DrugCANqu	.951	2.25	22	956	.001	**.05**
DrugMDMAqu	.976	1.08	22	956	.368	.02

Alcohol Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

		Used		Never Used						
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**
Mindfulness	MAAS6	49.6	.4	50.9	.6	6.06	.000	.16	Large	Maladaptive ↓
Equanimity	EQ	49.6	.4	51.0	.6	6.51	.000	.17	Large	Maladaptive ↓
Self-Kindness	USKS	49.8	.4	50.3	.6	4.24	.000	.12	Medium	Maladaptive ↓
Altruism	CASA	50.1	.4	49.9	.6	3.46	.000	.10	Medium	Adaptive ↑
Awe	AWE3	49.7	.4	50.4	.6	3.68	.000	.10	Medium	Maladaptive ↓
Elevation	ELEV	50.0	.4	49.8	.6	3.49	.000	.10	Medium	Adaptive ↑
Benefit Reminding	BRS	50.3	.4	49.5	.6	2.65	.000	.08	Medium	Adaptive ↑
Gratitude	G3	49.9	.4	49.3	.6	2.72	.000	.08	Medium	Adaptive ↑
Forgiveness	TTF	50.3	.4	49.2	.6	3.16	.000	.09	Medium	Adaptive ↑
Self-Transcendence	SIST	50.2	.4	50.5	.6	5.03	.000	.13	Medium	Maladaptive ↓
Perceived Support	SIPSS	50.7	.4	48.7	.6	1.85	.004	.05	Small	Adaptive ↑
Meaning in Life	SIMIL	50.2	.4	49.5	.6	3.02	.000	.09	Medium	Adaptive ↑
Life Satisfaction	SILS	50.5	.4	49.3	.6	3.90	.000	.11	Medium	Adaptive ↑
Perceived Health	SIPH	50.3	.4	49.4	.6	2.53	.000	.07	Medium	Adaptive ↑
Sleep	SISQ	49.7	.4	49.6	.6	3.21	.000	.09	Medium	Adaptive ↑
Anxiety	PHQ.anx	50.3	.4	49.5	.5	6.48	.000	.17	Large	Maladaptive ↑
Depression	PHQ.dep	50.0	.4	49.2	.5	6.19	.000	.16	Large	Maladaptive ↑
Helplessness	SISH	49.9	.4	49.6	.6	4.64	.000	.13	Medium	Maladaptive ↑

S4.3.3 MANCOVA Alcohol Users (693) vs Non-Users (315) (Cont.)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DrugSEDqu	.962	1.72	22	956	.021	**.04**
DrugDISSOCqu	.972	1.26	22	956	.189	.03
DrugPSYDqu	.973	1.21	22	956	.234	.03
DRUGOplife	.978	.98	22	956	.482	.02
DRUGStimlife	.971	1.28	22	956	.173	.03
DRUGCanlife	.962	1.73	22	956	.019	**.04**
DRUGMDMAlife	.970	1.34	22	956	.133	.03
DRUGSedlife	.975	1.11	22	956	.328	.03
DRUGDissoclife	.965	1.56	22	956	.049	**.04**
CVQUlivealone	.984	.68	22	956	.858	.02
DRUGAlcusual.dichot	.960	1.79	22	956	.014	**.04**

Alcohol Use vs Measures

* Significant covariates are controlled for in Measures MANCOVA

DV		Used M	Used SE	Never Used M	Never Used SE	*F*	*p*	ηp²	Size	Direction	
Boredom	SISB	49.6	.3	48.7	.5	9.32	.000	.22	Large	Maladaptive	↑
Pain Perception	SISP	49.4	.4	51.4	.6	2.50	.000	.07	Medium	Adaptive	↓
Pandemic Fear	SIPF	49.78	.4	49.85	.6	4.29	.000	.12	Medium	Adaptive	↓
Financial Fear	SIFF	50.2	.4	49.8	.6	3.21	.000	.09	Medium	Maladaptive	↑

S4.3.4 MANCOVA Growth Motivation (53) vs Fun/Recreational Motivation (127)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypothesis df	Error df	*p*	ηp²
DEMOagetr	.888	.78	22	136	.746	.11
DEMOsexnum	.663	3.14	22	136	.000	**.34**
DEMOeductr	.812	1.44	22	136	.109	.19
DEMOzipNJ	.922	.53	22	136	.960	.08
DEMOUSA	.857	1.04	22	136	.426	.14
DEMOincometr	.860	1.01	22	136	.461	.14
DEMOethnicdishot	.793	1.62	22	136	.051	.21
Demoreligdichot	.882	.83	22	136	.684	.12
DEMOstudentnum	.842	1.16	22	136	.297	.16
DEMOworknum	.812	1.43	22	136	.110	.19
DrugOPqu	.925	.51	22	136	.968	.08
DrugSTIMqu	.821	1.34	22	136	.155	.18
DrugCANqu	.830	1.26	22	136	.208	.17
DrugMDMAqu	.840	1.18	22	136	.279	.16
DrugSEDqu	.843	1.15	22	136	.300	.16
DrugDISSOCqu	.897	.71	22	136	.820	.10
DrugALCqu	.901	.68	22	136	.853	.10
DRUGOplife	.863	.98	22	136	.490	.14
DRUGStimlife	.799	1.56	22	136	.066	.20

Psychedelic Use vs Measures

		Growth		Fun							
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**	
Mindfulness	MAAS6	54.3	1.4	49.4	.9	2.40	.001	.29	Large	Adaptive	↑
Equanimity	EQ	55.4	1.3	50.8	.8	3.08	.000	.34	Large	Adaptive	↑
Self-Kindness	USKS	51.8	1.6	48.7	.9	1.63	.037	.22	Large	Adaptive	↑
Altruism	CASA	53.4	1.4	51.3	.9	1.47	.080	.20	n.s.	Adaptive	
Awe	AWE3	56.9	1.4	51.2	.8	2.30	.001	.28	Large	Adaptive	↑
Elevation	ELEV	52.6	1.5	49.4	.9	1.78	.018	.23	Large	Adaptive	↑
Benefit Reminding	BRS	55.7	1.5	49.8	.9	1.43	.095	.20	n.s.	Adaptive	
Gratitude	G3	52.4	1.5	47.7	.9	1.96	.006	.25	Large	Adaptive	↑
Forgiveness	TTF	52.2	1.5	49.9	.9	1.45	.088	.20	n.s.	Adaptive	
Self-Transcendence	SIST	59.7	1.4	52.8	.9	1.86	.011	.24	Large	Adaptive	↑
Perceived Support	SIPSS	50.2	1.5	48.9	.9	1.15	.298	.16	n.s.	Adaptive	
Meaning in Life	SIMIL	52.1	1.6	49.3	1.0	1.57	.050	.21	Large	Adaptive	↑
Life Satisfaction	SILS	50.7	1.4	48.6	.9	2.64	.000	.31	Large	Adaptive	↑
Perceived Health	SIPH	53.2	1.3	49.6	.8	2.73	.000	.32	Large	Adaptive	↑
Sleep	SISQ	53.3	1.4	50.2	.9	1.78	.017	.23	Large	Adaptive	↑
Anxiety	PHQ.anx	47.0	1.3	51.1	.8	3.06	.000	.34	Large	Adaptive	↓
Depression	PHQ.dep	47.3	1.4	50.9	.9	2.39	.001	.29	Large	Adaptive	↓
Helplessness	SISH	48.1	1.5	50.8	.9	1.85	.012	.24	Large	Adaptive	↓

S4.3.4 MANCOVA Growth Motivation (53) vs Fun/Recreational Motivation (127) (Cont.)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypothesis df	Error df	*p*	ηp²
DRUGCanlife	.896	.72	22	136	.817	.10
DRUGMDMAlife	.737	2.21	22	136	.003	**.26**
DRUGSedlife	.847	1.12	22	136	.338	.15
DRUGDissoclife	.806	1.49	22	136	.088	.19
DRUGAlcusual.dichot	.928	.48	22	136	.975	.07
ITEMdichotmovmedlife	.823	1.33	22	136	.163	.18
TQUcohabitate	.855	1.05	22	136	.411	.15
Drugpsydmotivegrowth	.788	1.66	22	136	.042	**.21**

Psychedelic Use vs Measures

		Growth		Fun						
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**
Boredom	SISB	43.8	1.4	48.5	.8	2.26	.001	.28	Large	Adaptive ⬇
Pain Perception	SISP	48.5	1.5	52.6	.9	1.22	.226	.17	n.s.	Adaptive
Pandemic Fear	SIPF	47.6	1.6	51.1	1.0	1.55	.054	.21	n.s.	Adaptive
Financial Fear	SIFF	48.2	1.4	50.4	.8	1.61	.041	.22	Large	Adaptive ⬇

S4.3.5 MANCOVA Fun/Recreational Motivated Psychedelic Users (132) vs Non-Users (800)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DEMOagetr	.970	1.27	22	900	.182	.03
DEMOsexnum	.820	9.00	22	900	.000	.18
DEMOeductr	.944	2.40	22	900	.000	.06
DEMOzipNJ	.975	1.06	22	900	.384	.03
DEMOUSA	.980	.85	22	900	.658	.02
DEMOincometr	.960	1.72	22	900	.021	.04
DEMOethnicdishot	.940	2.59	22	900	.000	.06
Demoreligdichot	.961	1.64	22	900	.032	.04
DEMOstudentnum	.904	4.32	22	900	.000	.10
DEMOworknum	.940	2.60	22	900	.000	.06
CVQUlivealone	.977	.94	22	900	.537	.02
DRUGOplife	.974	1.07	22	900	.372	.03
DRUGStimlife	.972	1.17	22	900	.270	.03
DRUGCanlife	.957	1.84	22	900	.011	.04
DRUGMDMAlife	.976	1.02	22	900	.440	.02
DRUGSedlife	.977	.96	22	900	.515	.02
DRUGDissoclife	.972	1.18	22	900	.256	.03
DRUGAlcusual.dichot	.960	1.69	22	900	.025	.04

		Rec-reational		**Never Used**						
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**
Mindfulness	MAAS6	48.4	.9	50.0	.3	5.65	.000	.14	Large	Mal-adaptive ↓
Equanimity	EQ	49.8	.9	49.7	.3	6.01	.000	.15	Large	Adaptive ↑
Self-Kindness	USKS	50.8	.9	49.7	.4	4.33	.000	.11	Medium	Adaptive ↑
Altruism	CASA	51.3	1.0	49.5	.4	3.19	.000	.09	Medium	Adaptive ↑
Awe	AWE3	52.0	.9	49.1	.4	2.88	.000	.08	Medium	Adaptive ↑
Elevation	ELEV	49.6	1.0	49.9	.4	3.17	.000	.09	Medium	Mal-adaptive ↓
Benefit Reminding	BRS	51.0	1.0	49.5	.4	2.02	.002	.06	Small	Adaptive ↑
Gratitude	G3	49.6	1.0	49.6	.4	2.46	.000	.07	Medium	Mal-adaptive ↓
Forgiveness	TTF	50.7	.9	49.7	.3	2.74	.000	.07	Medium	Adaptive ↑
Self-Transcendence	SIST	51.9	.9	49.3	.4	3.03	.000	.08	Medium	Adaptive ↑
Perceived Support	SIPSS	51.5	1.0	49.9	.4	1.93	.003	.05	Small	Adaptive ↑
Meaning in Life	SIMIL	51.8	1.0	49.6	.4	2.76	.000	.08	Medium	Adaptive ↑
Life Satisfaction	SILS	50.4	1.0	50.0	.4	3.81	.000	.10	Medium	Adaptive ↑
Perceived Health	SIPH	49.0	.9	49.8	.3	2.25	.000	.06	Medium	Mal-adaptive ↓
Sleep	SISQ	50.2	1.0	50.0	.4	2.69	.000	.07	Medium	Adaptive ↑
Anxiety	PHQ.anx	50.5	1.0	49.7	.4	6.28	.000	.16	Large	Mal-adaptive ↑
Depression	PHQ.dep	51.1	1.0	49.2	.4	6.12	.000	.15	Large	Mal-adaptive ↑

S4.3.5 MANCOVA Fun/Recreational Motivated Psychedelic Users (132) vs Non-Users (800) (Cont.)

Significant and Non-Significant Covariates

Effect	Wilks' Lambda	F	Hypoth-esis df	Error df	*p*	ηp²
DrugOPqu	.980	.85	22	900	.665	.02
DrugSTIMqu	.981	.80	22	900	.726	.02
DrugCANqu	.949	2.21	22	900	.001	.05
DrugMDMAqu	.973	1.13	22	900	.306	.03
DrugSEDqu	.961	1.66	22	900	.029	.04
DrugDISSOCqu	.970	1.29	22	900	.170	.03
DrugALCqu	.985	.60	22	900	.923	.02
ITEMdichotanymedlife	.936	2.81	22	900	.000	.06
ITEMDrugPsydFunVsNevernum	.963	1.57	22	900	.046	.04

		Rec-reational		Never Used							
DV		**M**	**SE**	**M**	**SE**	***F***	***p***	**ηp²**	**Size**	**Direction**	
Helplessness	SISH	50.1	.9	50.4	.3	4.68	.000	.12	Medium	Adaptive	↓
Boredom	SISB	50.1	.9	49.9	.3	8.87	.000	.21	Large	Mal-adaptive	↑
Pain Perception	SISP	50.1	.9	49.9	.3	2.63	.000	.07	Medium	Mal-adaptive	↑
Pandemic Fear	SIPF	50.7	.9	49.8	.4	4.66	.000	.12	Medium	Mal-adaptive	↑
Financial Fear	SIFF	50.6	.9	50.2	.3	3.38	.000	.09	Medium	Mal-adaptive	↑

Supplement 5. *Skew and Corrections for all studies*

S5.1 Skews and Corrections for Study 1

			MYST	IIS	ASTI	**LUCi**	**LUCc**	PM.acc	PM.awa2	SCStot	FSA.lk	FSA.com	FSA.sj	FSA.eq	FSA.total	SPAN Ep	SPAN En	SPAN Ebal	SWLS	LMH
		Demo-graphics	Self-Transcendence			Lucid Dreaming		Mindfulness		Self-Compassion	Four Sublime Attitudes					Affect			Life Satis-faction	Medi-tation
	Construct	Age	Edu	Myst-icism	Incl-usive Iden-tity	Self-Transc-endence	Lucid Drea-ming In-sight	Lucid Drea-ming Con-trol	Mind-ful Acce-ptance	Mind-ful Awar-eness	Self-Compa ssion	Lov-ing Kind-ness	Com-passion	Sympa thetic Joy	Equa-nimity	FSA Total	Posi-tive Affect	Neg-ative Affect	Aff-ective Bal-ance	Life Satisfacti on	Life-time Medi-tation Hours
	Variable Name			MYST	IIS	ASTI	LUCi	LUCc	PM.acc	no anx. item	SCStot	FSA.lk	FSA.com	FSA.sj	FSA.eq	FSA.total	SPAN E3.p	SPAN E3.n	SPAN E3.b	SWLS	
	Skew	1.7	.0	.0	-.1	-.2	-.3	.4	.5	-.3	-.1	-.9	-1.2	-1.2	-.6	-.8	-.8	1.0	-.9	-.4	9.4
	Minimum	18	9	5	3	18	6	4	4	6	1.0	3	2	4	2	22	3	3	-18	6	0
	Maximum	75	21	35	21	70	42	28	28	21	7.0	14	14	14	14	56	21	21	18	35	24000
Raw	*Mean*	28.4	15.2	19.9	13.1	48.8	24.7	12.3	12.7	16.0	4.2	11.4	11.8	12.4	10.0	45.6	16.2	7.3	8.8	24.0	321.3
scores	*SD*	12.8	1.7	8.0	4.3	10.0	8.8	6.2	5.6	3.2	1.0	2.2	2.1	1.9	2.8	6.4	3.8	3.9	6.9	6.5	1,751.0
	Trans-formation	-	-	-	-	-	-	SQRT (X)	SQRT (X)	-	-	SQRT(K-X)	LOG (K-X)	LOG (K-X)	SQRT (K-X)	SQRT (K-X)	SQRT (K-X)	LOG10(X)	SQRT (K-X)	SQRT (K-X)	1/(X+C)
	Skew			.0	-.1	-.2	-.3	.0	.0	-.3	-.1	-.2	.1	-.3	.1	.2	.0	.0	.0	.2	.2
	Minimum			5.0	3.0	18.0	6.0	2.0	2.0	6.0	1.0	-3.5	-1.1	-1.0	-3.6	-5.9	-4.4	0.5	-6.1	-5.6	-1.0
Trans-	*Maximum*			35.0	21.0	70.0	42.0	5.3	5.3	21.0	7.0	-1.0	0.0	0.0	-1.0	-1.0	-1.0	1.3	-1.0	-1.4	0.0
formed	*Mean*			19.9	13.1	48.8	24.7	3.4	3.5	16.0	4.2	-1.8	-0.4	-0.3	-2.1	-3.2	-2.3	0.8	-3.0	-3.5	-0.6
scores	*SD*			8.04	4.34	9.99	8.80	.90	.80	3.21	1.02	.58	.30	.31	.65	1.00	.81	.23	1.13	.94	.46
	ALPHA	-	-	.94	.81	.84	.87	.86	.85	.77	.86	.90	.90	.93	.90	.82	.90	.83	-	.89	-

S5.2 Skews and Corrections for Study 2

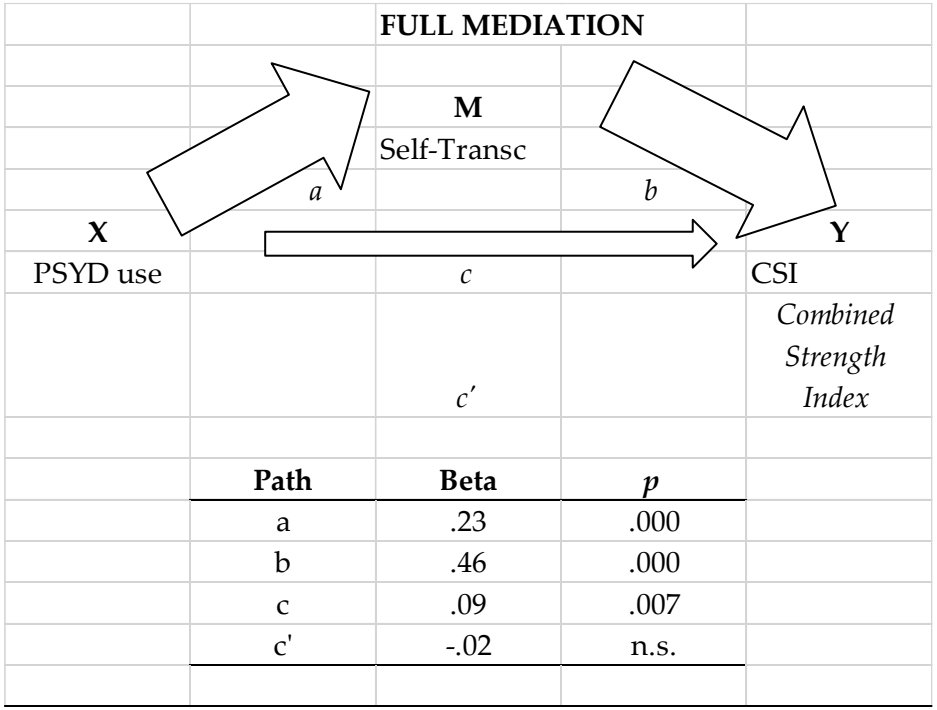
	Age	Educ	Income	MAAS	EQ	G3	TTF	HUM	DGS	MES	HATE	FSSQ	IIS	SIST	SISQ	SIPH	VOL	DUF.alc
Alpha				**.87**	**.88**	**.93**	**.67**	**.57**	**.84**	**.87**	**.89**	**.81**	**.74**	**-**	**-**	**-**	**-**	**-**
Min	18	8	$0	6	4	3	4	6	4	3	3	3	3	1	1	1	0	0
Max	84	26	$500,000	42	28	21	28	21	28	21	21	21	21	10	10	10	30	70
Mean	27.1	14.8	$26,770	24.3	13.6	17.8	15.6	16.2	13.9	6.9	7.3	17.4	14.7	7.3	6.1	6.7	4.8	3.5
SD	12.2	1.9	$42,840	8.2	6.5	3.4	4.9	3.4	5.8	4.1	4.3	3.7	4.0	2.5	2.3	1.9	6.1	5.4
Skew	2.0	.1	4.0	.1	.5	-1.2	.1	-.2	.3	1.0	1.0	-1.2	-.4	-.8	-.4	-.5	2.2	3.9
Trans	1/X	SQRT(X)	SQRT(X+1)	-	SQRT(X)	LOG (K-X)	-	SQRT (K-X)	-	LOG(X)	LOG(X)	LOG (K-X)	SQRT (K-X)	SQRT (K-X)	SQRT (K-X)	SQRT (K-X)	ASINH(X)	ASINH(X)
Min	-.06	8.00	0.0	6.00	2.00	-1.28	4.00	6.00	4.00	.48	.48	-1.28	-4.36	-3.16	-3.16	-3.16	.00	.00
Max	-.01	26.00	5.7	42.00	5.29	.00	28.00	21.00	28.00	1.32	1.32	.00	-1.00	-1.00	-1.00	-1.00	4.09	4.94
Mean	0.0	14.8	3.0	24.3	3.6	-0.5	15.6	16.2	13.9	0.8	0.8	-0.5	-2.6	-1.8	-2.2	-2.0	1.7	1.3
SD	0.0	1.9	2.0	8.2	0.9	0.4	4.9	3.4	5.8	0.2	0.2	0.4	0.8	0.7	0.5	0.5	1.1	1.2
Skew	**1.1**	.1	-.7	.1	.0	.0	.1	-.2	.3	.2	.2	.1	.3	-.3	.2	.1	.1	.3
r	.95	1.00	.54	1.00	.99	.93	1.00	1.00	1.00	.97	.97		.98	.99	.99	.99	.86	.86

S5.3 Skews and Corrections for Study 3

Items	1	1	1	1	1	3	6	4	3	5	3	4	3	4	2
	Age	Educ	Income	Lifetime Sitting Meditation	Lifetime Moving Meditation	Self-Kindness Self.Kind	Mindfulness MAAS6	Equanimity EQ	Awe AWE3	Elevation ELEV	Altruism CASA	Benefit Finding BRS	Gratitude G3	Forgiveness TTF	Anxiety PHQ.anx
Min	18	6	$0	0	0	3	6	4	3	5	3	5	3	4	2
Max	89	28	$330,000	20000	50000	21	42	28	21	35	21	28	21	28	14
Mean	33.2	15.3	$31,437	206.0	303.8	11.8	25.8	14.7	15.9	29.4	18.0	22.9	17.4	15.7	8.9
SD	15.5	2.4	$41,359	1346.5	1972.8	4.2	8.5	6.9	3.8	5.4	3.1	4.3	3.6	5.1	3.6
Skew	1.0	0.7	2.1	10.1	17.5	-.1	.0	.3	-.6	-1.2	-1.3	-1.0	-1.1	.0	-.3
Trans	1/X	1/X	SQRT(X+1)	1/(X+1)	1/(X+1)	-	-	SQRT(X)	SQRT(K-X)	LOG(K-X)	LOG(K-X)	SQRT(K-X)	LOG(K-X)	-	SQRT(K-X)
Min	-0.1	0.8	1.0	-1.0	-1.0	3.0	6.0	2.0	-4.4	-1.5	-1.3	-4.9	-1.3	4.0	-3.6
Max	0.0	1.4	574.5	0.0	0.0	21.0	42.0	5.3	-1.0	.0	.0	-1.0	.0	28.0	-1.0
Mean	0.0	1.2	129.2	-0.6	-0.5	11.8	25.8	3.7	-2.3	-.6	-.5	-2.3	-.5	15.7	-2.3
SD	0.0	0.1	120.4	0.4	0.5	4.2	8.5	.9	.8	.4	.4	.9	.4	5.1	.8
Skew	.3	-.3	.5	.3	-.1	-.1	.0	-.1	.1	.3	.0	-.1	.2	.0	.2
r	.95	.99	.99	.23	.15	1.00	1.00	.99	.98	.90	.93	.98	.92	1.00	.99

Items	2	1	1	1	1	1	1	1	1	1	1	1	1
	Depression PHQ.dep	Self-Transcendence SI.transc	Meaning SI.Meaning	Life Satisfaction SI.Life.Sat	Helplessness SI.Helpless	Boredom SI.Bored	Pain SI.Pain	Sleep SI.Sleep	Perceived Health SI.Perc.health	Perceived Support SI.Support	Financial Fear QU.financial	Fear of Virus QU.fear	Blame Foreign QU.foreign
Min	2	1	1	1	1	1	1	1	1	1	1	1	1
Max	14	10	10	10	10	10	10	10	10	10	10	10	10
Mean	7.1	7.5	7.5	7.3	4.5	6.3	3.8	5.4	6.7	8.1	6.1	6.6	3.5
SD	3.7	2.3	2.1	2.0	3.0	3.2	2.5	2.5	2.2	2.0	3.1	2.4	3.0
Skew	.3	-.8	-.9	-.7	.4	-.3	.6	.0	-.5	-1.2	-.2	-.5	.9
Trans	SQRT(X)	LOG(K-X)	SQRT(K-X)	SQRT(K-X)	SQRT(X)	SQRT(K-X)	LOG(X)	-	SQRT(K-X)	LOG(K-X)	SQRT(K-X)	SQRT(K-X)	1/X
Min	1.4	-1.0	-3.2	-3.2	1.0	-3.2	.0	1.0	-3.2	-1.0	-3.2	-3.2	-1.0
Max	3.7	.0	-1.0	-1.0	3.2	-1.0	1.0	10.0	-1.0	.0	-1.0	-1.0	-.1
Mean	2.6	-.4	-1.8	-1.9	2.0	-2.0	.5	5.4	-2.0	-.4	-2.1	-2.0	-.6
SD	.7	.3	.6	.5	.7	.8	.3	2.5	.6	.3	.7	.6	.4
Skew	-.1	.2	-.3	-.1	.1	.0	-.2	.0	.1	-.1	.1	.1	-.1
r	.99	.94	.99	.99	.99	.99	.95	1.00	.99	.95	.99	.99	.87

Supplement 6. *Mediation analysis information*



Path	Beta	*p*
a	.23	.000
b	.46	.000
c	.09	.007
c'	-.02	n.s.

Judd, C.M. & Kenny, D.A. (1981). Process Analysis: Estimating mediation in treatment evaluations. Evaluation Review, 5(5), 602-619.

"In the Step 4 model, some form of mediation is supported if the effect of M (path b) remains significant after controlling for X. If X is no longer significant when M is controlled, the finding supports full mediation. If X is still significant (i.e., both X and M both significantly predict Y), the finding supports partial mediation." http://web.pdx.edu/~newsomj/semclass/ho_mediation.pdf

Conflict of interest statement

The authors declare no conflicts of interest.

Data Accessibility

Data files are available on request from the corresponding author. Validation data for CASA and Four Sublime Attitudes are available as well.

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