

Appendix A

Online Supplemental Materials: Figures

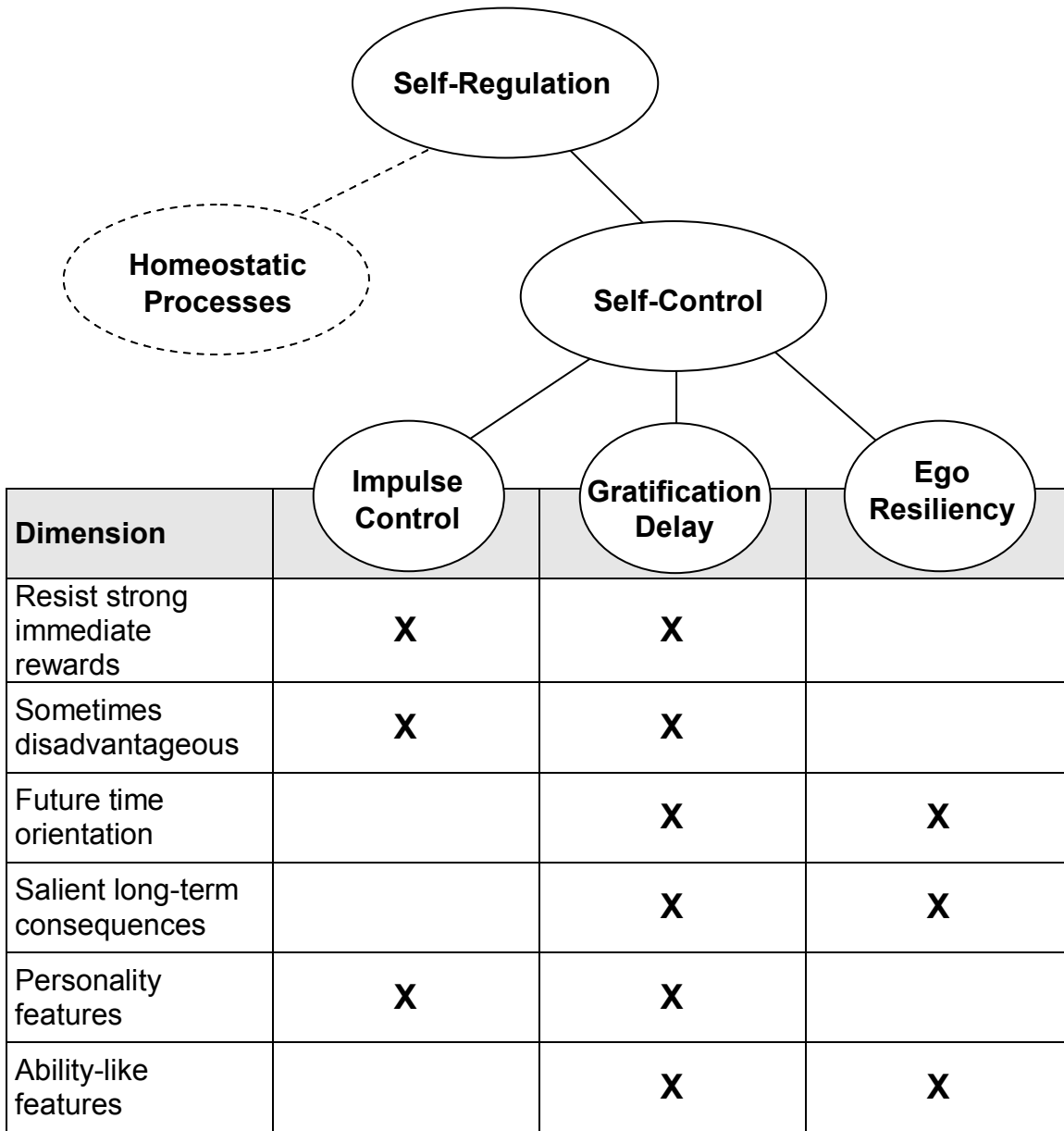


Figure A1. Hierarchy of self-regulation and related constructs.

Appendix A (continued)

Online Supplemental Materials: Figures

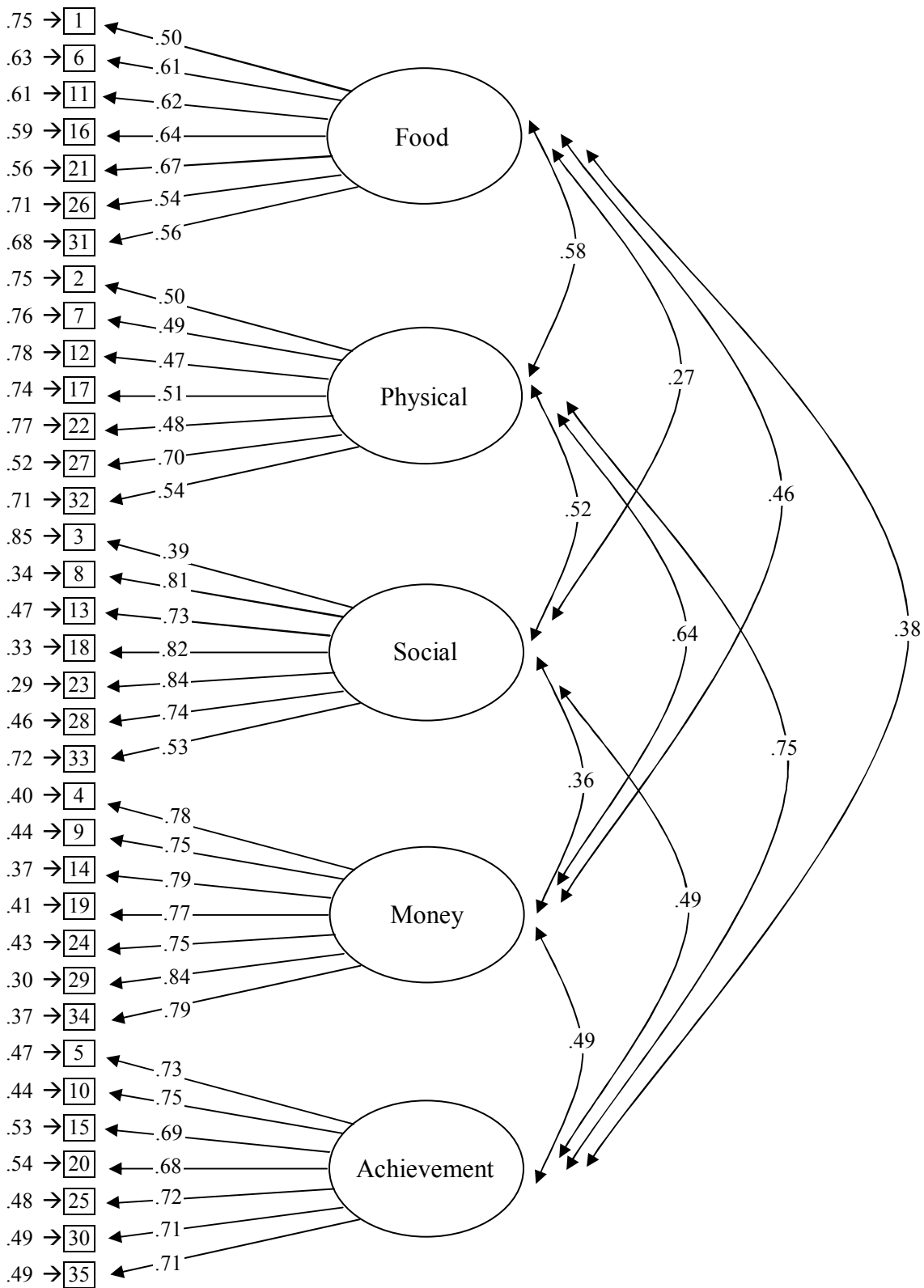


Figure A2. Confirmatory factor analysis for entire worldwide sample.

Appendix B

Online Supplemental Materials: Tables

Table B1

Summary of Research Articles Describing Overlap of Five Factors

Year	Author(s)	Food	Physical	Social	Money	Achievement
2008	Lee et al.			X		X
2007	Baumeister et al.	X	X	X	X	X
2007	Ramanathan & Williams	X	X		X	
2006	Nederkoorn et al.	X	X			
2006	Ramanathan & Menon	X	X		X	
2004	Bembenutty & Karabenick	X		X		X
2003	Marcus		X	X		
1998	Bembenutty & Karabenick		X	X		X
1994	Baumeister et al.	X	X		X	
1988	Mischel et al.	X		X		X
1978	Poggie				X	X
1966	Phillips		X	X	X	X
1955	Singer	X	X	X		

Note. Food = delay involving food, Phys = physical delay, Social = delay for social rewards, Money = monetary delay, Ach = delay for achievement

Appendix B (continued)

Online Supplemental Materials: Tables

Table B2

Item Properties in Study 1

Item	<i>M</i>	<i>SD</i>	Food	Phys	Soc	Money	Ach	Total
Food								
16	3.27	1.32	.59	.23	.09	.21	.12	.34
21	3.64	1.26	.53	.26	.12	.24	.17	.37
6	2.89	1.31	.49	.31	.16	.29	.27	.43
11	2.69	1.29	.48	.31	.18	.28	.20	.40
31	3.27	1.26	.47	.25	.16	.21	.14	.34
1	3.84	1.34	.42	.28	.17	.25	.21	.38
26	3.11	1.17	.39	.26	.17	.27	.29	.40
Physical								
27	2.98	1.32	.30	.49	.25	.39	.48	.54
22	3.55	1.31	.15	.47	.26	.22	.28	.38
12	3.99	1.21	.17	.45	.22	.25	.28	.38
2	3.41	1.13	.32	.38	.18	.23	.28	.40
7	3.13	1.21	.32	.37	.19	.27	.33	.42
32	2.57	1.19	.25	.36	.18	.24	.37	.40
17	3.39	1.19	.25	.29	.25	.21	.36	.42
Social								
23	4.09	1.07	.20	.32	.64	.25	.32	.45
8	4.16	0.97	.18	.28	.64	.19	.27	.40
18	3.99	1.01	.18	.31	.64	.19	.32	.43
28	4.07	0.86	.14	.25	.62	.13	.28	.36
13	4.44	0.85	.11	.22	.55	.16	.23	.33
33	4.55	0.71	.09	.13	.43	.06	.18	.23
3	3.48	1.16	.17	.24	.32	.16	.18	.29
Money								
29	3.36	1.19	.28	.35	.14	.71	.32	.51
34	3.63	1.21	.30	.31	.17	.71	.23	.48
4	3.64	1.16	.33	.33	.19	.70	.26	.51
14	3.99	0.95	.30	.34	.23	.66	.32	.53
9	3.76	1.28	.30	.33	.16	.61	.21	.46
24	3.77	1.22	.24	.31	.19	.61	.31	.47
19	4.30	1.04	.31	.36	.24	.61	.34	.53
Achievement								
10	3.87	1.16	.15	.37	.25	.23	.66	.46
5	3.61	1.24	.17	.37	.28	.23	.63	.46
30	3.76	1.14	.21	.42	.26	.26	.59	.49
25	3.32	1.37	.29	.50	.26	.31	.59	.55
35	4.19	0.98	.20	.41	.26	.23	.56	.47
15	3.13	1.37	.23	.46	.25	.30	.56	.50
20	3.72	1.18	.27	.45	.30	.28	.55	.52

Note. $n = 1,900$. Values for the Food, Physical, Social, Money, Achievement, and Total columns refer to item-total and corrected item-total correlations. To facilitate visual inspection, correlations greater than magnitude $r = .35$ are in bold. Items are presented in order of descending corrected item-total correlations by subscale.

Appendix B (continued)

Online Supplemental Materials: Tables

Table B3

Item Properties in Study 2

Item	<i>M</i>	<i>SD</i>	Food	Phys	Soc	Money	Ach	Total
Food								
16	3.08	1.32	.50	.20	.09	.17	.14	.30
21	3.93	1.13	.51	.25	.15	.23	.18	.36
6	2.79	1.30	.48	.29	.13	.25	.22	.38
11	2.61	1.25	.48	.30	.16	.28	.16	.38
31	3.36	1.26	.44	.26	.17	.21	.19	.35
1	3.47	1.41	.38	.26	.12	.20	.16	.31
26	3.27	1.21	.42	.33	.21	.31	.34	.45
Physical								
27	3.02	1.31	.36	.49	.29	.43	.47	.57
22	3.45	1.27	.11	.46	.25	.26	.25	.35
12	3.96	1.19	.12	.42	.28	.24	.26	.35
2	3.44	1.14	.30	.38	.21	.27	.29	.41
7	2.99	1.24	.36	.31	.20	.26	.35	.42
32	2.34	1.21	.23	.40	.24	.30	.31	.41
17	3.18	1.25	.29	.35	.26	.30	.30	.45
Social								
23	4.28	0.92	.17	.34	.67	.28	.33	.46
8	4.16	0.93	.15	.29	.66	.23	.29	.41
18	3.98	0.99	.20	.37	.66	.28	.38	.49
28	4.17	0.82	.16	.30	.61	.20	.32	.41
13	4.54	0.80	.12	.26	.56	.24	.25	.37
33	4.56	0.68	.10	.15	.42	.14	.21	.26
3	3.59	1.14	.20	.27	.33	.22	.20	.33
Money								
29	3.54	1.16	.31	.44	.25	.74	.41	.60
34	3.60	1.22	.31	.40	.23	.71	.28	.54
4	3.68	1.26	.29	.36	.23	.70	.26	.51
14	4.08	0.98	.28	.40	.32	.67	.38	.57
9	3.91	1.25	.30	.37	.24	.65	.26	.51
24	3.96	1.19	.26	.36	.27	.65	.36	.53
19	4.35	1.01	.27	.37	.29	.62	.34	.53
Achievement								
10	3.90	1.17	.15	.34	.27	.28	.65	.46
5	3.53	1.27	.15	.36	.28	.26	.64	.46
30	3.92	1.06	.24	.39	.31	.33	.59	.52
25	3.39	1.38	.34	.50	.31	.36	.59	.58
35	4.27	0.92	.24	.37	.32	.25	.58	.48
15	3.27	1.34	.23	.45	.29	.31	.59	.52
20	3.77	1.17	.24	.39	.31	.30	.57	.50

Note. $n = 7,771$. Values for the Food, Physical, Social, Money, Achievement, and Total columns refer to item-total and corrected item-total correlations. To facilitate visual inspection, correlations greater than magnitude $r = .35$ are in bold. Items are presented in same order as previous table for ease of comparison.

Appendix B (continued)

Online Supplemental Materials: Tables

Table B4

Scale Properties in Studies 1 and 2

Study 1									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	22.7	5.8	(.77)						
Physical	23.0	5.1	.42	(.69)					
Social	28.8	4.5	.23	.37	(.80)				
Money	26.5	6.1	.39	.44	.25	(.88)			
Achievement	25.6	6.0	.31	.60	.37	.37	(.84)		
DGI-10	35.8	6.6	.58	.71	.57	.62	.75	(.77)	
DGI-35	126.6	19.5	.68	.79	.59	.71	.76	.91	(.90)
Study 2									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	22.5	5.6	(.74)						
Physical	22.4	5.1	.43	(.69)					
Social	29.4	4.3	.23	.42	(.81)				
Money	27.2	6.2	.37	.50	.33	(.89)			
Achievement	26.1	6.0	.32	.56	.41	.42	(.84)		
DGI-10	36.3	6.7	.59	.72	.58	.66	.73	(.79)	
DGI-35	127.5	19.6	.66	.80	.62	.75	.76	.92	(.91)

Note. $n_1 = 1,900$. $n_2 = 7,771$. F = Food, P = Physical, S = Social, M = Money, A = Achievement, 10 = DGI-10 short form composite, 35 = DGI-35 composite. Table values are means, standard deviations, and correlations, with alphas indicated in parentheses.

Appendix B (continued)

Online Supplemental Materials: Tables

Table B5

Scale Properties in Study 1 by Gender

Females									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	21.9	5.8	(.76)						
Physical	23.9	4.9	.46	(.68)					
Social	29.6	4.1	.20	.35	(.76)				
Money	26.1	6.1	.38	.47	.24	(.87)			
Achievement	26.9	5.7	.32	.60	.37	.38	(.84)		
DGI-10	36.4	6.3	.61	.71	.55	.61	.74	(.75)	
DGI-35	128.3	18.7	.69	.81	.55	.73	.76	.91	(.90)
Males									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	23.5	5.7	(.76)						
Physical	22.3	5.1	.45	(.69)					
Social	28.1	4.9	.30	.36	(.82)				
Money	26.8	6.1	.38	.44	.28	(.88)			
Achievement	24.4	6.1	.37	.58	.35	.40	(.83)		
DGI-10	35.3	6.9	.59	.70	.57	.63	.76	(.78)	
DGI-35	125.0	20.0	.70	.78	.61	.72	.76	.91	(.90)

Note. $n_{\text{female}} = 888$. $n_{\text{male}} = 997$. F = Food, P = Physical, S = Social, M = Money, A = Achievement, 10 = DGI-10 short form composite, 35 = DGI-35 composite. Table values are means, standard deviations, and correlations, with alphas indicated in parentheses. All mean differences by gender are statistically significant ($p < .05$).

Appendix B (continued)

Online Supplemental Materials: Tables

Table B6

Scale Properties in Study 2 by Gender

Females									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	21.9	5.6	(.75)						
Physical	23.4	4.9	.46	(.67)					
Social	30.1	4.0	.24	.39	(.79)				
Money	27.0	6.2	.36	.51	.31	(.88)			
Achievement	27.4	5.5	.32	.55	.39	.41	(.83)		
DGI-10	37.1	6.4	.61	.73	.56	.66	.71	(.77)	
DGI-35	129.7	18.9	.68	.80	.60	.75	.74	.91	(.90)
Males									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	23.1	5.5	(.74)						
Physical	21.5	5.1	.45	(.70)					
Social	28.8	4.4	.27	.41	(.81)				
Money	27.3	6.3	.38	.51	.34	(.89)			
Achievement	25.0	6.1	.37	.55	.39	.45	(.84)		
DGI-10	35.7	6.9	.61	.71	.58	.67	.75	(.80)	
DGI-35	125.6	20.1	.68	.79	.62	.76	.77	.92	(.91)

Note. $n_{\text{female}} = 3,578$. $n_{\text{male}} = 4,142$. F = Food, P = Physical, S = Social, M = Money, A = Achievement, 10 = DGI-10 short form composite, 35 = DGI-35 composite. Table values are means, standard deviations, and correlations, with alphas indicated in parentheses. All mean differences by gender are statistically significant ($p < .05$).

Appendix B (continued)

Online Supplemental Materials: Tables

Table B7

Scale Properties in Study 1 by Location

U.S. Participants									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	22.6	5.8	(.77)						
Physical	23.4	5.1	.42	(.70)					
Social	29.1	4.5	.21	.31	(.80)				
Money	26.4	6.3	.39	.40	.23	(.88)			
Achievement	26.3	6.0	.32	.57	.31	.34	(.84)		
DGI-10	36.1	6.7	.58	.69	.55	.59	.74	(.77)	
DGI-35	127.7	19.9	.69	.77	.56	.70	.74	.91	(.91)
International Participants									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	23.0	5.7	(.77)						
Physical	22.4	5.0	.43	(.68)					
Social	28.4	4.6	.25	.41	(.81)				
Money	26.5	5.9	.38	.47	.26	(.86)			
Achievement	24.4	5.9	.32	.61	.40	.40	(.82)		
DGI-10	35.3	6.5	.59	.72	.57	.63	.76	(.77)	
DGI-35	124.7	18.8	.68	.81	.60	.72	.77	.91	(.89)

Note. $n_{US} = 1,178$. $n_{International} = 695$. F = Food, P = Physical, S = Social, M = Money, A = Achievement, 10 = DGI-10 short form composite, 35 = DGI-35 composite. Table values are means, standard deviations, and correlations, with alphas indicated in parentheses. All mean differences by nationality are statistically significant, except for the Food and Money subscales ($p < .05$).

Appendix B (continued)

Online Supplemental Materials: Tables

Table B8

Scale Properties in Study 2 by Location

U.S. Participants									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	22.2	5.7	(.75)						
Physical	22.6	5.3	.43	(.71)					
Social	29.4	4.4	.25	.44	(.81)				
Money	26.9	6.4	.36	.51	.35	(.89)			
Achievement	26.8	6.0	.33	.57	.44	.45	(.85)		
DGI-10	36.4	6.9	.59	.74	.61	.67	.75	(.80)	
DGI-35	128.0	20.3	.66	.81	.64	.76	.77	.92	(.91)
International Participants									
Scale	<i>M</i>	<i>SD</i>	F	P	S	M	A	10	35
Food	22.8	5.4	(.73)						
Physical	22.2	4.9	.42	(.68)					
Social	29.3	4.1	.22	.39	(.80)				
Money	27.4	6.1	.38	.49	.30	(.89)			
Achievement	25.3	5.9	.32	.56	.38	.40	(.83)		
DGI-10	36.3	6.6	.59	.71	.56	.65	.73	(.79)	
DGI-35	127.0	19.0	.67	.79	.60	.75	.76	.91	(.90)

Note. $n_{US} = 3,747$. $n_{International} = 3,903$. F = Food, P = Physical, S = Social, M = Money, A = Achievement, 10 = DGI-10 short form composite, 35 = DGI-35 composite. Table values are means, standard deviations, and correlations, with alphas indicated in parentheses. All mean differences by nationality are statistically significant, except for the Social subscale and DGI-10 scale ($p < .05$).

Appendix B (continued)

Online Supplemental Materials: Tables

Table B9

Model Fit and Measurement Invariance Across Study Samples, Gender, and Location

Constraint	CFI	NFI	RMSEA	sRMR	AIC	χ^2_{S-B}	χ^2_{S-B}/df
All Participants							
5-Factor	.964	.962	.057	.058	18,031	17,871	32.49
4-Factor	.958	.957	.061	.065	20,797	20,645	37.27
Invariance Across Studies							
Structure	.962	.960	.058	.059	19,374	19,054	17.32
Loadings	.961	.959	.058	.061	19,903	19,643	17.38
Var-Cov	.961	.959	.058	.062	20,020	19,790	17.28
Invariance Across Gender							
Structure	.965	.962	.056	.059	18,033	17,713	16.10
Loadings	.964	.961	.056	.061	18,487	18,227	16.13
Var-Cov	.963	.961	.056	.069	18,716	18,486	16.14
Invariance Across Location							
Structure	.963	.961	.058	.059	24,592	24,272	22.07
Loadings	.961	.960	.058	.062	25,222	24,962	22.09
Var-Cov	.961	.959	.057	.064	25,356	25,126	21.94

Note. $n = 9,671$. CFI = Comparative Fit Index, NFI = Normed Fit Index, RMSEA = Root Mean Square Error of Approximation, sRMR = standardized Root Mean Residual, AIC = Akaike Information Criterion, S-B = Satorra-Bentler correction, 5-Factor = base model with five factors, 4-Factor = model with four factors, Structure = constrained to have the same factor structure across subsamples, Loadings = constrained to have the same loadings across subsamples, Var-Cov = constrained to have the same variance-covariance matrix across subsamples.

Appendix B (continued)

Online Supplemental Materials: Tables

Table B10

Replication of Correlations between DGI Scores, Trait Descriptor Ratings, and Behavioral Tendency Ratings in Study 3

Measure	F	P	S	M	A	10	35
Trait Descriptors							
Moderation	.54	.24	.06	.29	.35	.46	.44
Self-Discipline	.53	.41	.20	.26	.59	.68	.58
Diligence	.51	.44	.21	.37	.65	.60	.64
Conscientiousness	.47	.36	.03	.15	.56	.43	.45
Self-Control	.22	.24	.27	.33	.20	.37	.37
Extravagance	-.08	-.19	-.29	-.63	-.31	-.31	-.46
Immoderation	-.59	-.07	-.05	-.32	-.35	-.40	-.42
Achievement-Striving	.29	.42	.23	.43	.68	.59	.60
Well-Being	.34	.20	.21	.16	.46	.41	.40
Prudence	.15	.48	.36	.32	.29	.47	.46
Patience	.27	.36	.43	.30	.20	.39	.45
Perceived Health	.26	.07	.09	.11	.34	.24	.26
Impulse Control	.43	.24	.25	.14	.35	.39	.41
Rebelliousness	-.20	-.45	-.49	-.34	-.37	-.56	-.54
Agreeableness	.17	.34	.49	.05	.27	.46	.37
Neuroticism	-.21	-.21	-.18	.12	-.27	-.27	-.20
Depression	-.34	-.19	.01	-.02	-.30	-.26	-.24
Anger	-.15	-.09	-.29	-.03	-.09	-.25	-.18
Sensation-Seeking	-.26	-.55	-.19	-.40	-.30	-.47	-.49
Altruism	.10	.24	.62	.04	.19	.35	.33
Anxiety	-.15	.02	.01	.02	-.05	-.10	-.04
Perceived Attractiveness	.35	.04	.00	.11	.20	.23	.21
Somatization	-.01	.19	-.02	-.07	-.06	.01	.00
Comprehension	.22	.34	.18	.26	.27	.31	.37
Excitement-Seeking	.19	-.31	-.31	-.21	-.04	-.22	-.19
Perceived Intelligence	.21	.18	.09	.18	.11	.23	.23
Risk-Taking	.08	-.28	-.31	-.11	-.08	-.24	-.19
Openness to Experience	.02	.07	.28	.05	.10	.07	.15
Machiavellianism	.14	.03	-.18	-.06	.04	-.04	-.01
Extraversion	.05	-.12	.10	-.09	.23	.04	.05
Behavioral Tendency							
Buy unneeded purchases	-.31	-.32	-.15	-.54	-.29	-.38	-.49
Lie or hide the truth	-.12	-.26	-.30	-.25	-.37	-.30	-.38
Pay bills on time	.10	.17	.17	.37	.37	.32	.35
Bend or break the rules	-.19	-.49	-.48	-.43	-.33	-.55	-.56
Eat fast food	-.04	-.37	-.22	.01	-.12	-.28	-.20
Exercise	.33	.09	-.14	-.16	.33	.30	.12
Help other people	-.05	.30	.55	.01	.26	.34	.30
Party excessively	-.21	-.47	-.24	-.29	-.25	-.37	-.42

Drink pop / soda	.17	-.03	-.33	.02	-.07	-.14	-.06
Smoke cigarettes	-.11	-.30	-.31	-.39	-.37	-.41	-.44
Think about sex	-.05	-.30	-.27	-.20	-.18	-.29	-.29
Read books	.04	.48	.15	.09	.23	.27	.27
Check financial news	.33	.16	-.17	.04	.19	.09	.16
Think about food	-.39	.03	.09	-.11	.09	-.05	-.09
Gamble	-.02	-.23	-.33	-.21	-.11	-.27	-.26
Discuss intellectual topics	.15	.08	-.09	.16	.16	.14	.14
Watch television shows	-.07	-.06	-.16	.05	-.09	-.14	-.09

Note. $n = 64$. F = Food, P = Physical, S = Social, M = Money, A = Achievement, 10 = DGI-10 short form composite, 35 = DGI-35 composite. For consistency with manuscript Table 3, items are presented in the same order rather than descending. To facilitate visual inspection, statistically significant correlations are bold ($p < .05$).