Supplementary Results

Model fit statistics for all tests of invariance by gender and site for the bifactor, correlated five-factor and hierarchical single factor cognitive risk product models are located in Table S3. Note that there are additional steps for examining measurement invariance in second-order latent factor models (i.e., the hierarchical single factor model). Measurement invariance of the hierarchical single factor model was investigated using the guidelines outlined by Chen, Sousa, and West (2005).

Tests of Measurement Invariance Across Gender

Bifactor model. Model fit for the unconstrained loadings models (i.e., factor loadings free to vary; configural), the constrained loadings models (i.e., factor loadings equal across groups; metric), and the constrained intercepts models (i.e., factor loadings and intercepts equal across groups; scalar) was good by RMSEA, SRMR and acceptable by CFI. The change in CFI and RSMEA between the constrained loadings models (metric) and unconstrained loadings models (configural) was small and supported metric invariance (ΔCFI=.002, ΔRMSEA=.004). The change in CFI and RSMEA between the constrained loadings and intercepts models (scalar) and constrained loadings models (metric) was small and supported scalar invariance (ΔCFI=.006, ΔRMSEA=.001). Thus, results suggested invariance by gender for the bifactor model at the scalar level.

Hierarchical single factor model. Fit for the fully unconstrained loadings models, the first-order constrained loadings models, and second-order constrained loadings models (i.e., configural and metric invariance models) was good by RMSEA and SRMR, and acceptable by CFI. Fit for the constrained intercepts of observed variables models was not acceptable by RMSEA, CFI or SRMR. The change in CFI and RSMEA between the constrained first-order

factor loadings models and fully unconstrained first- and second-order factor loadings models supported invariance (ΔCFI=.000, ΔRMSEA=.002). The change in CFI and RSMEA between the constrained second-order loadings models and first-order constrained loadings models was small and supported invariance at the metric level (ΔCFI=.003, ΔRMSEA=.001). The change in CFI and RSMEA between the constrained intercepts of manifest indicators models and second-order constrained loadings models did not support invariance (ΔCFI=.241, ΔRMSEA=.051). Thus, results suggested invariance by gender for the hierarchical single factor model at the metric level.

Correlated five-factor model. Model fit for the unconstrained loadings models (i.e., factor loadings free to vary across groups; configural), constrained loadings models (i.e., factor loadings equal across groups; metric), and the constrained loadings and intercepts models (i.e., factor loadings and intercepts equal across groups; scalar) were good by SRMR and RMSEA, and were acceptable by CFI. The change in CFI and RSMEA between the constrained loadings models (metric) and unconstrained loadings models (configural) supported metric invariance (ΔCFI=.000, ΔRMSEA=.001). The change in CFI and RSMEA between the constrained loadings and intercepts models (scalar) and constrained loadings models (metric) was small and supported scalar invariance (ΔCFI=.003, ΔRMSEA=.001). Thus, results suggested invariance by gender for the correlated factor model at the scalar level.

Tests of Measurement Invariance Across Site

Bifactor model. Model fit for the unconstrained loadings models (i.e., factor loadings free to vary across groups; configural) was good by SRMR and RMSEA, and was acceptable by CFI. Model fit for the constrained loadings models (i.e., factor loadings equal across groups; metric) was good by RMSEA, acceptable by CFI, but was not good by SRMR. Model fit for the

constrained loadings and intercepts models (i.e., factor loadings and intercepts equal across groups; scalar) was good by RMSEA, but was not good by CFI or SRMR. The change in CFI and RSMEA between the constrained loadings models (metric) and unconstrained loadings models (configural) supported metric invariance (ΔCFI=.008, ΔRMSEA=.000). The change in CFI and RSMEA between the constrained loadings and intercepts models (scalar) and constrained loadings models (metric) supported invariance by RMSEA (ΔRMSEA=.000), but did not support scalar invariance by CFI (ΔCFI=.023). Thus, convergence across model fit indices suggests invariance by site for the bifactor model at the metric level.

Hierarchical single factor model measurement invariance by site. Fit for the first- and second-order unconstrained loadings models (configural) was good by SRMR, and acceptable by RMSEA and CFI. Fit for the first-order constrained loadings models was good by RMSEA, acceptable by CFI, but not good by SRMR. Fit for the second-order constrained loadings models was acceptable by RMSEA, but was not acceptable by CFI and not good by SRMR. Fit for the constrained intercepts of observed variables models was not acceptable by RMSEA or CFI, and was not good SRMR. The change in CFI and RSMEA between the constrained first-order factor loadings models and fully unconstrained first- and second-order factor loadings models supported invariance (ΔCFI=.005, ΔRMSEA=.001). The change in CFI and RSMEA between the constrained second-order loadings models and first-order constrained loadings models was small and supported invariance at the metric level (ΔCFI=.004, ΔRMSEA=.001). The change in CFI and RSMEA between the constrained intercepts of manifest indicators models and second-order constrained loadings models did not support invariance (ΔCFI=.236, ΔRMSEA=.046). Thus, convergence across model fit indices suggested partial metric invariance by site for the hierarchical single factor model.

Correlated five-factor model. Model fit for the unconstrained loadings models (i.e.,

factor loadings free to vary; configural) and constrained loadings models (i.e., factor loadings

equal across groups; metric) was good by both RMSEA and SRMR, and acceptable by CFI.

Model fit for the constrained intercepts models (i.e., factor loadings and intercepts equal across

groups; scalar) was good by SRMR, acceptable by RMSEA, but was not acceptable by CFI.

The change in CFI and RSMEA between the constrained loadings models (metric) and

unconstrained loadings models (configural) was small and supported metric invariance

(ΔCFI=.002, ΔRMSEA=.001). The change in CFI and RSMEA between the constrained loadings

and intercepts models (scalar) and constrained loadings models (metric) supported scalar

invariance by RMSEA (ΔRMSEA=.005), but not by CFI (ΔCFI=.02). Thus, convergence across

fit indices suggests invariance by site for the correlated factor model at the metric level.

Table S1

Individual Cognitive Risk Models

Latent Factor Model	Parcel Indicator	Items in Parcel	Text	Std. Loading	SE	Residual Variance	Item Mean	Item SD	χ^2 (df), S-B Factor	RMSEA	CFI	SRMR
Dysfunctional Attitudes (1 factor)									2.84 (2), 1.23	.03	.99	.02
	CDAS1	2, 5, 8	2. My life is wasted unless I am a success. 5. If a person is not a success, then his/her life is meaningless. 8. If I do well, it is probably due to chance; if I do badly, it is probably my own fault.	0.58	0.05	0.55	2.18	0.05				
	CDAS2	1, 7	1. I should be able to please everybody. 7. I should be happy all the time.	0.41	0.07	0.87	2.92	0.05				
	CDAS3	3, 6	3. My value as a person depends greatly on what others think of me. 6. If someone performs a selfish act, this means he/she is a selfish person.	0.50	0.07	0.76	2.70	0.05				
	CDAS4	4, 9	4. If a person has to be alone for a long period of time, it follows that he/she has to feel lonely. 9. Turning to someone else for advice or help is an admission of weakness.	0.66	0.06	0.46	2.01	0.05				
Negative Inferential Style (1 factor)									8.84 (2), 1.04*	.10	.99	.02
	ACSQ1 (Stable)	1-9	1. Do you think the reason for getting a bad grade will cause you to get bad grades in the future? 2. Do you think the reason you don't have a boyfriend/girlfriend will cause you to not have a boyfriend/girlfriend in the future? 3. Do you think the reason you weren't invited to the party will also cause you not to be invited to parties in the future? 4. Do you think the reason you got a bad report card will also cause you to get bad report cards in the future? 5. Do you think the reason they broke up with you will also cause others to break up with you again in the future? 6. Do you think the reason you got in a fight will also cause you to get in fights with your parents in the future? 7. Do you think the reason you didn't get a date will also cause you to not get dates in the future? 8. Do you think the reason you didn't get chose for the activity will also cause you to not get chose for activites in the future? 9. Do you think the reason you didn't get accepted by any colleges you will also cause you to not get into other colleges in the future?	0.71	0.05	0.45	2.90	0.05				

ACSQ2 (Global)	1-9	1. Do you think the reason for your bad grade will cause problems in other parts of your life? 2. Do you think the reason you don't have a boyfriend/girlfriend will cause you to have problems in other parts of your life? 3. Do you think the reason you weren't invited to the party will also cause problems in other parts of your life? 4. Do you think the reason you got a bad report card will cause problems in other parts of your life? 5. Do you think the reason they broke up with you will cause problems in other parts of your life? 6. Do you think the reason you got in the fight with your parents will cause problems in other parts of your life? 7. Do you think the reason you didn't get a date will cause problems in other parts of your life? 8. Do you think the reason you didn't get chosen for the activity will cause problems in other parts of your life? 9. Do you think the reason you didn't get accepted by any colleges will also cause problems in other parts of your life?	0.78	0.06	0.36	2.37	0.05
ACSQ3 (Conseq.)	1-9	1. Do you think other bad things will happen to you because of your bad test grade? 2. Do you think other bad things will happen to you because you don't have a boyfriend/girlfriend? 3. Do you think other bad things will happen to you because you weren't invited to the party? 4. Do you think other bad things will happen to you because you got a bad report card? 5. Do you think other bad things will happen to you because they broke up with you? 6. Do you think other bad things will happen to you because you got in a fight with your parents? 7. Do you think other bad things will happen to you because you didn't get a date? 8. Do you think other bad things will happen to you because you didn't get chosen for the activity? 9. Do you think other bad things will happen to you because you didn't get into a college?	0.92	0.05	0.12	2.10	0.05
ACSQ4 (Self)	1-9	1. Do you think there is something wrong with you because you got a bad test grade? 2. Do you think there is something wrong with you because you don't have a boyfriend/girlfriend? 3. Do you think there is something wrong with you because you weren't invited to the party? 4. Do you think there is something wrong with you because you got a bad report card? 5. Do you think there is something wrong with you because they broke up with you? 6. Do you think there is something wrong with you because you got in the fight with your parents?	0.70	0.06	0.60	2.21	0.06

			7. Do you think there is something wrong with you because you didn't get a date? 8. Do you think there is something wrong with you because you didn't get chosen for the activity? 9. Do you think there is something wrong with you because you didn't get into a college?									
Dependency (1 factor)									7.68 (2), 1.08*	.09	.97	.03
	DEQA-D1	13, 14	13. I generally watch carefully to see how other people are affected by what I say. 14. I worry a lot about upsetting or hurting someone who is close to me.	0.76	0.10	1.10	4.24	0.09				
	DEQA-D2	16, 17	16. Anger frightens me. 17. If someone I cared about became angry with me, I would feel frightened that he or she might leave.	0.61	0.10	1.45	3.43	0.08				
	DEQA-D3	5, 9	5. It bothers me that relationships with people change. 9. I have difficulty breaking off a friendship that is making me unhappy.	0.54	0.11	1.78	4.00	0.09				
	DEQA-D4	2, 11	2. Sometimes I feel very big, and other times I feel very small. 11. I very often go out of my way to please or help people I am close to.	0.51	0.09	1.26	4.36	0.07				
Self-Criticism (1 factor)									-	-	-	
	DEQA-SC1	3, 10	3. I often find that I fall short of what I expect of myself. 10. Often, I feel I have disappointed others.	0.72	0.09	1.06	3.15	0.08				
	DEQA-SC2	8, 20	8. Usually I am not satisfied with what I have. 20. I am very satisfied with myself and the things I have achieved. (R)	0.66	0.08	1.07	2.71	0.08				
	DEQA-SC3	6, 12	6. There is a big difference between how I am and how I wish I were. 12. I never really feel safe in a close relationship with a parent or a friend.	0.71	0.08	0.94	2.97	0.08				
Brooding (1 factor)									-	-	-	
	CRSQ-RS1	3, 10	3. When I am sad, I think: "I'm ruining everything." 10. When I am sad, I think: "I am disappointing my friends, family, or teachers."	0.75	0.04	0.22	0.63	0.04				
	CRSQ-RS2	9, 12	9. When I am sad, I think: "There must be something wrong with me or I wouldn't feel this way." 12. When I am sad, I think: "Why can't I handle things better?"	0.76	0.04	0.25	0.90	0.04				
	CRSQ-RS3	7, 8	7. When I am sad, I think about other times when I have felt sad. 8. When I am sad, I think about a recent situation wishing it had gone better.	0.63	0.05	0.38	1.07	0.04				

Note. CDAS = Child Dysfunctional Attitudes Scale; NIS = Negative Inferential Style; ACSQ = Adolescent Cognitive Style Questionnaire; DEQ-A = Depressive Experiences Questionnaire for Adolescents; CRSQ-RS = Child Response Styles Questionnaire, Rumination Subscale; All factor loadings are significant ($p < .05$).

Table S2

Full Cognitive Risk Bifactor Model

Factor	Parcel Indicator	Items in Parcel	Text	Stand. Loading Estimate	Unstand. Loading Estimate	SE	Est./SE	Item Residual Variance
Common cognitive risk	CDAS1	2, 5, 8	2. My life is wasted unless I am a success. 5. If a person is not a success, then his/her life is meaningless. 8. If I do well, it is probably due to chance; if I do badly, it is probably my own fault.	0.40	0.36	0.06	6.18	
	CDAS3	3, 6	3. My value as a person depends greatly on what others think of me. 6. If someone performs a selfish act, this means he/she is a selfish person.	0.16	0.16	0.06	2.70	
	CDAS4	4, 9	4. If a person has to be alone for a long period of time, it follows that he/she has to feel lonely. 9. Turning to someone else for advice or help is an admission of weakness.	0.33	0.29	0.05	5.44	
	ACSQ1 (Stable)	1-9	1. Do you think the reason for getting a bad grade will cause you to get bad grades in the future? 2. Do you think the reason you don't have a boyfriend/girlfriend will cause you to not have a boyfriend/girlfriend in the future? 3. Do you think the reason you weren't invited to the party will also cause you not to be invited to parties in the future? 4. Do you think the reason you got a bad report card will also cause you to get bad report cards in the future? 5. Do you think the reason they broke up with you will also cause others to break up with you again in the future? 6. Do you think the reason you got in a fight will also cause you to get in fights with your parents in the future? 7. Do you think the reason you didn't get a date will also cause you to not get dates in the future? 8. Do you think the reason you didn't get chose for the activity will also cause you to not get chose for activites in the future? 9. Do you think the reason you didn't get accepted by any colleges you will also cause you to not get into other colleges in the future?	0.46	0.44	0.06	7.24	
	ACSQ2 (Global)	1-9	1. Do you think the reason for your bad grade will cause problems in other parts of your life? 2. Do you think the reason you don't have a boyfriend/girlfriend will cause you to have problems in other parts of your life? 3. Do you think the reason you weren't invited to the party will also cause problems in other parts of your life?	0.45	0.43	0.06	6.82	

		4. Do you think the reason you got a bad report card will cause problems in other parts of your life? 5. Do you think the reason they broke up with you will cause problems in other parts of your life? 6. Do you think the reason you got in the fight with your parents will cause problems in other parts of your life? 7. Do you think the reason you didn't get a date will cause problems in other parts of your life? 8. Do you think the reason you didn't get chosen for the activity will cause problems in other parts of your life? 9. Do you think the reason you didn't get accepted by any colleges will also cause problems in other parts of your life?				
ACSQ3 (Conseq.)	1-9	1. Do you think other bad things will happen to you because of your bad test grade? 2. Do you think other bad things will happen to you because you don't have a boyfriend/girlfriend? 3. Do you think other bad things will happen to you because you weren't invited to the party? 4. Do you think other bad things will happen to you because you got a bad report card? 5. Do you think other bad things will happen to you because they broke up with you? 6. Do you think other bad things will happen to you because you got in a fight with your parents? 7. Do you think other bad things will happen to you because you didn't get a date? 8. Do you think other bad things will happen to you because you didn't get chosen for the activity? 9. Do you think other bad things will happen to you because you didn't get into a college?	0.50	0.44	0.06	7.89
ACSQ4 (Self)	1-9	1. Do you think there is something wrong with you because you got a bad test grade? 2. Do you think there is something wrong with you because you don't have a boyfriend/girlfriend? 3. Do you think there is something wrong with you because you weren't invited to the party? 4. Do you think there is something wrong with you because you got a bad report card? 5. Do you think there is something wrong with you because they broke up with you? 6. Do you think there is something wrong with you because you got in the fight with your parents? 7. Do you think there is something wrong with you because you didn't get a date? 8. Do you think there is something wrong with you because you didn't get chosen for the activity? 9. Do you think there is something wrong with you because you didn't get into a college?	0.53	0.58	0.06	9.44
DEQA-	13, 14	13. I generally watch carefully to see how other people are	0.44	0.72	0.10	7.09

	Code	Items	Item text					
	D1		affected by what I say. 14. I worry a lot about upsetting or hurting someone who is close to me.					
	DEQA-D2	16, 17	16. Anger frightens me. 17. If someone I cared about became angry with me, I would feel frightened that he or she might leave.	0.46	0.69	0.10	7.32	
	DEQA-D3	5, 9	5. It bothers me that relationships with people change. 9. I have difficulty breaking off a friendship that is making me unhappy.	0.43	0.68	0.10	7.09	
	DEQA-D4	2, 11	2. Sometimes I feel very big, and other times I feel very small. 11. I very often go out of my way to please or help people I am close to.	0.30	0.40	0.09	4.28	
	DEQA-SC1	3, 10	3. I often find that I fall short of what I expect of myself. 10. Often, I feel I have disappointed others.	0.73	1.09	0.08	13.96	1.05
	DEQA-SC2	8, 20	8. Usually I am not satisfied with what I have. 20. I am very satisfied with myself and the things I have achieved. (R)	0.63	0.87	0.08	10.57	1.17
	DEQA-SC3	6, 12	6. There is a big difference between how I am and how I wish I were. 12. I never really feel safe in a close relationship with a parent or a friend.	0.72	1.00	0.07	14.19	0.91
	CRSQ-RS1	3, 10	3. When I am sad, I think: "I'm ruining everything." 10. When I am sad, I think: "I am disappointing my friends, family, or teachers."	0.47	0.34	0.04	8.73	
	CRSQ-RS2	9, 12	9. When I am sad, I think: "There must be something wrong with me or I wouldn't feel this way." 12. When I am sad, I think: "Why can't I handle things better?"	0.53	0.41	0.05	9.03	
	CRSQ-RS3	7, 8	7. When I am sad, I think about other times when I have felt sad. 8. When I am sad, I think about a recent situation wishing it had gone better.	0.42	0.33	0.05	7.43	
Dysfunctional attitudes-specific	CDAS1	2, 5, 8	2. My life is wasted unless I am a success. 5. If a person is not a success, then his/her life is meaningless. 8. If I do well, it is probably due to chance; if I do badly, it is probably my own fault.	0.45	0.41	0.06	7.29	0.53
	CDAS2	1, 7	1. I should be able to please everybody. 7. I should be happy all the time.	0.46	0.47	0.07	6.37	0.83
	CDAS3	3, 6	3. My value as a person depends greatly on what others think of me. 6. If someone performs a selfish act, this means he/she is a selfish person.	0.50	0.50	0.07	7.03	0.75
	CDAS4	4, 9	4. If a person has to be alone for a long period of time, it follows that he/she has to feel lonely. 9. Turning to someone else for advice or help is an admission of weakness.	0.56	0.50	0.07	6.96	0.47
Negative inferential style-	ACSQ1 (Stable)	1-9	1. Do you think the reason for getting a bad grade will cause you to get bad grades in the future?	0.53	0.51	0.05	9.41	0.46

specific

2. Do you think the reason you don't have a boyfriend/girlfriend will cause you to not have a boyfriend/girlfriend in the future?
3. Do you think the reason you weren't invited to the party will also cause you not to be invited to parties in the future?
4. Do you think the reason you got a bad report card will also cause you to get bad report cards in the future?
5. Do you think the reason they broke up with you will also cause others to break up with you again in the future?
6. Do you think the reason you got in a fight will also cause you to get in fights with your parents in the future?
7. Do you think the reason you didn't get a date will also cause you to not get dates in the future?
8. Do you think the reason you didn't get chose for the activity will also cause you to not get chose for activites in the future?
9. Do you think the reason you didn't get accepted by any colleges you will also cause you to not get into other colleges in the future?

ACSQ2 (Global)	1-9	1. Do you think the reason for your bad grade will cause problems in other parts of your life? 2. Do you think the reason you don't have a boyfriend/girlfriend will cause you to have problems in other parts of your life? 3. Do you think the reason you weren't invited to the party will also cause problems in other parts of your life? 4. Do you think the reason you got a bad report card will cause problems in other parts of your life? 5. Do you think the reason they broke up with you will cause problems in other parts of your life? 6. Do you think the reason you got in the fight with your parents will cause problems in other parts of your life? 7. Do you think the reason you didn't get a date will cause problems in other parts of your life? 8. Do you think the reason you didn't get chosen for the activity will cause problems in other parts of your life? 9. Do you think the reason you didn't get accepted by any colleges will also cause problems in other parts of your life?	0.63	0.61	0.06	10.26	0.37	
ACSQ3 (Conseq.)	1-9	1. Do you think other bad things will happen to you because of your bad test grade? 2. Do you think other bad things will happen to you because you don't have a boyfriend/girlfriend? 3. Do you think other bad things will happen to you because you weren't invited to the party? 4. Do you think other bad things will happen to you because you got a bad report card?	0.78	0.69	0.05	13.39	0.11	

			Items					
			5. Do you think other bad things will happen to you because they broke up with you?					
			6. Do you think other bad things will happen to you because you got in a fight with your parents?					
			7. Do you think other bad things will happen to you because you didn't get a date?					
			8. Do you think other bad things will happen to you because you didn't get chosen for the activity?					
			9. Do you think other bad things will happen to you because you didn't get into a college?					
	ACSQ4 (Self)	1-9	1. Do you think there is something wrong with you because you got a bad test grade? 2. Do you think there is something wrong with you because you don't have a boyfriend/girlfriend? 3. Do you think there is something wrong with you because you weren't invited to the party? 4. Do you think there is something wrong with you because you got a bad report card? 5. Do you think there is something wrong with you because they broke up with you? 6. Do you think there is something wrong with you because you got in the fight with your parents? 7. Do you think there is something wrong with you because you didn't get a date? 8. Do you think there is something wrong with you because you didn't get chosen for the activity? 9. Do you think there is something wrong with you because you didn't get into a college?	0.49	0.53	0.06	8.39	0.57
Dependency-specific	DEQA-D1	13, 14	13. I generally watch carefully to see how other people are affected by what I say. 14. I worry a lot about upsetting or hurting someone who is close to me.	0.66	1.07	0.15	7.26	0.99
	DEQA-D2	16, 17	16. Anger frightens me. 17. If someone I cared about became angry with me, I would feel frightened that he or she might leave.	0.40	0.61	0.12	5.20	1.45
	DEQA-D3	5, 9	5. It bothers me that relationships with people change. 9. I have difficulty breaking off a friendship that is making me unhappy.	0.32	0.51	0.14	3.68	1.77
	DEQA-D4	2, 11	2. Sometimes I feel very big, and other times I feel very small. 11. I very often go out of my way to please or help people I am close to.	0.41	0.53	0.10	5.19	1.26
Brooding-specific	CRSQ-RS1	3, 10	3. When I am sad, I think: "I'm ruining everything." 10. When I am sad, I think: "I am disappointing my friends, family, or teachers."	0.58	0.41	0.05	7.95	0.22
	CRSQ-RS2	9, 12	9. When I am sad, I think: "There must be something wrong with me or I wouldn't feel this way." 12. When I am sad, I think: "Why can't I handle things better?"	0.54	0.41	0.05	7.89	0.25

CRSQ-RS3	7, 8	7. When I am sad, I think about other times when I have felt sad. 8. When I am sad, I think about a recent situation wishing it had gone better.	0.47	0.37	0.05	6.84	0.38

Variances

Factor	Estimated Variance	SE	Est./SE	*p*
Common cognitive risk	0.13	0.04	3.09	< .001
Dysfunctional attitudes-specific	0.17	0.05	3.64	< .001
Negative inferential style-specific	0.17	0.04	3.97	< .001
Dependency-specific	1.15	0.32	3.63	< .001
Brooding-specific	0.26	0.05	4.71	< .001

Note. CDAS = Child Dysfunctional Attitudes Scale; NIS = Negative Inferential Style; ACSQ = Adolescent Cognitive Style Questionnaire; DEQ-A = Depressive Experiences Questionnaire for Adolescents; CRSQ-RS = Child Response Styles Questionnaire, Rumination Subscale, S-B = Satorra-Bentler; All factor loadings are significant ($p < .01$)

Table S3
Model Measurement Invariance Across Gender and Site

Bifactor Gender Models	χ2 (df)	S-B Scaling Factor	AIC	BIC	CFI	RMSEA (90% CI)	SRMR
Loadings & Intercepts Constrained (*n*=376)	404.83 (282), *p* < .001 (Male=224.55, Female=198.20)	1.04	16975.55	17352.79	0.932	0.048 (0.037-0.058)	0.074
Loadings Constrained (*n*=376)	381.32 (269), *p* < .001 (Male=203.04, Female=178.28)	1.05	16978.58	17406.91	0.938	0.047 (0.036-0.058)	0.072
Unconstrained Loadings (*n*=376)	358.23 (242), *p* < .001 (Male=187.36, Female=170.87)	1.03	17001.26	17535.68	0.936	0.051 (0.039-0.061)	0.064

Hierarchical Single Factor Gender Models	χ2 (df)	S-B Scaling Factor	AIC	BIC	CFI	RMSEA (90% CI)	SRMR
Intercepts of Manifest Indicators Constrained (n=376)	870.144 (296), *p* < .001 (Male=427.82, Female=442.33)	1.05	17438.72	17760.95	0.684	0.102 (0.094-0.109)	0.200
Second-Order Factor Loadings Constrained (n=376)	414.02 (277), *p* < .001 (Male=209.46, Female=204.56)	1.05	16998.06	17394.94	0.925	0.051 (0.041-0.061)	0.076

	χ2 (df)	S-B Scaling Factor	AIC	BIC	CFI	RMSEA (90% CI)	SRMR
First-Order Factor Loadings Constrained (*n*=376)	414.45 (273), *p* < .001 (Male=209.58, Female=204.87)	1.05	17005.51	17418.11	0.922	0.052 (0.042-0.062)	0.076
First- & Second-Order Loadings Unconstrained (*n*=376)	403.303 (260), *p* < .001 (Male=201.08, Female=200.23)	1.04	17015.21	17478.9	0.922	0.054 (0.043-0.064)	0.071
Correlated Factor Gender Models	**χ2 (df)**	**S-B Scaling Factor**	**AIC**	**BIC**	**CFI**	**RMSEA (90% CI)**	**SRMR**
Loadings & Intercepts Constrained (*n*=376)	408.12 (276), *p* < .001 (Male=208.65, Female=199.47)	1.04	16990.68	17391.49	0.927	0.050 (0.040-0.061)	0.073
Loadings Constrained (*n*=376)	389.71 (263), *p* < .001 (Male=198.44, Female=191.27)	1.04	16997.89	17449.79	0.930	0.051 (0.040-0.061)	0.071
Loadings Unconstrained (*n*=376)	376.63 (250), *p* < .001 (Male=189.94, Female=186.69)	1.04	17006.94	17509.93	0.930	0.052 (0.041-0.062)	0.065
Bifactor Site Models	**χ2 (df)**	**S-B Scaling Factor**	**AIC**	**BIC**	**CFI**	**RMSEA (90% CI)**	**SRMR**
Loadings & Intercepts Constrained (*n*=380)	501.27 (282), *p* < .001 (Montreal=243.43, Chicago=257.84)	1.02	17176.01	17554.26	0.886	0.059 (0.049 0.068)	0.083

	χ2 (df)	S-B Scaling Factor	AIC	BIC	CFI	RMSEA (90% CI)	SRMR
Loadings Constrained (*n*=380)	444.36 (269), *p* < .001 (Montreal=230.23, Chicago=214.13)	1.03	17147.76	17577.24	0.909	0.059 (0.049-0.068)	0.083
Unconstrained Loadings (*n*=380)	400.42 (242), *p* < .001 (Montreal=221.40, Chicago=179.02)	1.01	17149.77	17685.63	0.917	0.059 (0.048-0.069)	0.071
Hierarchical Single Factor Site Models	**χ2 (df)**	**S-B Scaling Factor**	**AIC**	**BIC**	**CFI**	**RMSEA (90% CI)**	**SRMR**
Intercepts of Manifest Indicators Constrained (n=380)	950.09 (298), *p* < .001 (Montreal=583.99, Chicago=366.10)	1.03	17613.84	17929.06	0.660	0.107 (0.100-0.115)	0.203
Second-Order Factor Loadings Constrained (n=380)	477.94 (279), *p* < .001 (Montreal=249.41, Chicago=228.52)	1.03	17165.43	17555.51	0.896	0.061 (0.052-0.070)	0.087
First-Order Factor Loadings Constrained (*n*=380)	465.83 (275), *p* < .001 (Montreal=247.15, Chicago=218.68)	1.04	17161.04	17566.88	0.900	0.060 (0.051-0.070)	0.081
First- & Second-Order Loadings Unconstrained (*n*=380)	444.84 (262), *p* < .001 (Montreal=243.17, Chicago=201.67)	1.03	17162.56	17619.62	0.905	0.061 (0.051-0.070)	0.078

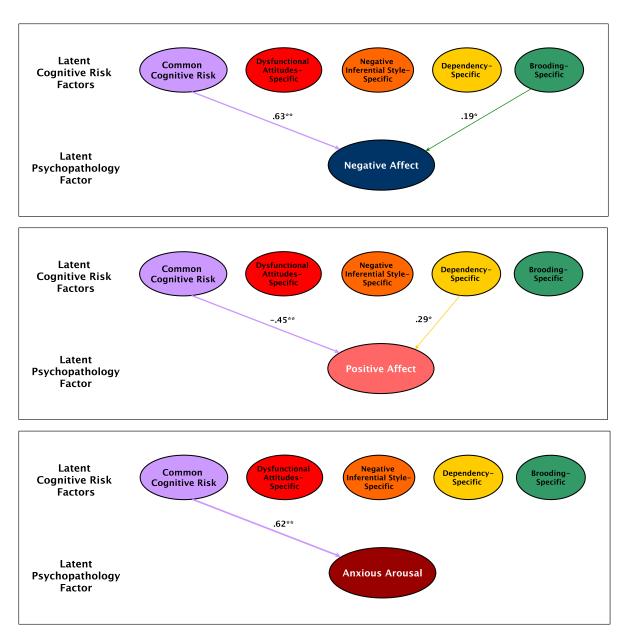| Correlated Factor Site Models	χ2 (df)	S-B Scaling Factor	AIC	BIC	CFI	RMSEA (90% CI)	SRMR
Loadings & Intercepts Constrained (*n*=380)	478.00 (276), *p* < .001 (Montreal=229.41, Chicago=248.59)	1.02	17166.83	17568.73	0.895	0.062 (0.053-0.071)	0.075
Loadings Constrained (*n*=380)	426.77 (263), *p* < .001 (Montreal=217.18, Chicago=209.59)	1.03	17142.31	17595.43	0.915	0.057 (0.047-0.067)	0.072
Loadings Unconstrained (*n*=380)	408.33 (250), *p* < .001 (Montreal=214.66, Chicago=193.67)	1.02	17144.34	17648.69	0.917	0.058 (0.047-0.068)	0.069

Figure S1. Bifactor model for cognitive risks and links with negative affect, positive affect, and anxious arousal. Numbers on straight arrows are standardized regression coefficients. Different thickness of straight arrows is presented to aid visual comparison of the relative magnitude of associations between dimensions of cognitive risk and external validators. * *p* < .05, ** *p* < .01 (based on the two-stage FDR adjusted *p* value, or *q* value)