Supplement A for

Measurement of Target Engagement and Network Analysis of Change Mechanisms in Web-Based Interpretation Bias Training for Anxiety

Jeremy W. Eberle

BS, BA, Tulane University, 2008

MA, University of Virginia, 2019

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Department of Psychology

University of Virginia

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Committee:

Bethany A. Teachman, PhD (Chair)

Steven M. Boker, PhD

Teague R. Henry, PhD

Laura E. Barnes, PhD

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Section SA1: Method and Results Notes

1.1 CFA Models With Method Effects for Positive Versus Negative Wording, Based on 28 Threat and Nonthreat Items

In addition to fitting CFA models based on 28 threat and nonthreat items with correlated errors among items stemming from the same scenario (see main text), we attempted to fit exploratory 28-item CFA models with method factors (or correlated errors) among items with positive versus negative wording. Each model included two correlated trait factors (threat, nonthreat). The main purpose of these models was to explore whether one substantive threat factor with method effects for positive versus negative wording had greater support than two substantive threat factors (i.e., positive threat, negative threat). The models reflect our initial attempt to answer this question in the context of the 28 threat and nonthreat items, with the nonthreat factor still present. However, estimation issues led us to pursue this question focusing on all 18 threat items (Section SA1.2).

Model 18: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and 4 Correlated Method Factors (1 Positive and 1 Negative per Trait)

First, we specified four correlated method factors: one positive method factor and one negative method factor for each trait (Model 18, Figure SA18). The positive method factor controlled for method variance due to positively worded items, and the negative method factor controlled for method variance due to negatively worded items. However, the model gave an improper solution (Table SA6), specifically a Heywood case (i.e., standardized factor correlation between threat and nonthreat factors > 1; a negative eigenvalue in the `cov_lv` matrix). Indeed, such correlated methods models are usually empirically underidentified (Brown, 2015, p. 199).

Model 19: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and 2 Correlated Method Factors (Positive and Negative for Threat Trait)

To reduce the model's complexity, we next specified two correlated method factors (positive, negative) among only the threat items (Model 19, Figure SA19). However, this model also gave an improper solution (Table SA6). Specifically, the information matrix could not be inverted and standard errors could not be computed.

Model 20: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and 2 Orthogonal Method Factors (Positive and Negative for Threat Trait)

To further reduce the model's complexity, we next specified orthogonal method factors (positive, negative) among the threat items (Model 20, Figure SA20). However, this model also yielded an improper solution (Table SA6) and had the same issues as Model 19.

Model 21: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and Correlated Errors per Scenario and Valence (Positive, Negative) for Threat Items

Given that correlated uniqueness models rarely yield improper solutions (in contrast to correlated methods models; Brown, 2015, p. 193), we next specified correlated errors among positive threat

items and among negative threat items, in place of positive and negative method factors. We also specified correlated errors per scenario among threat items (Model 21, Figure SA21). This model also gave an improper solution (Table SA6). For example, the residual variances of some threat items were 1, the standardized factor correlation between threat and nonthreat factors was greater than 1, the information matrix could not be inverted, and standard errors could not be computed. Other researchers have also found that including correlated errors for both positive and negative valences (vs. one valence) tends to yield improper solutions (see Marsh, 1996; Brown, 2003).

Model 22: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat), Correlated Errors per Scenario for Threat Items, and Correlated Errors Among Positive Threat Items

To avoid specifying correlated errors for both positive and negative valences, we next specified correlated errors among the positive threat items. We also specified correlated errors per scenario among the threat items (Model 22, Figure SA22). This model did not give an improper solution but met no traditional fit guidelines (Table SA6). The factor loading pattern suggested that one general threat factor was not well defined after controlling for positive wording (arguing against one substantive threat factor with method effects). However, given the imbalance in the number of positive threat (5) and negative threat (8) items in this model, and given the above estimation issues when including nonthreat items, we decided to further explore item characteristic effects due to positive versus negative wording by focusing on all 18 threat items (Section SA1.2).

1.2 CFA Models With Method Effects for Positive Versus Negative Wording, Based on All 18 Threat Items

After encountering the issues above when exploring item characteristic effects due to positive versus negative wording among the 28 threat and nonthreat items, we decided to further explore these effects by focusing on all 18 threat items. Given the issues we had encountered when using method factors above and before realizing that both correlated errors per scenario and method factors for positive versus negative wording can be specified in the same model (as in Models 13-15 of the main text), we began by specifying correlated errors per both scenario and valance. Each model included one trait factor (threat). Again, the purpose of these models was to explore whether one substantive threat factor with method effects for positive versus negative wording had greater support than two substantive threat factors (i.e., positive threat, negative threat).

Model 23: CFA Model With 1 Trait Factor (Threat), Correlated Errors per Scenario, and Correlated Errors per Valence (Positive, Negative)

First, we specified a set of correlated errors among positively worded items, another set among negatively worded items, and another set among items from the same scenario (Model 23, Figure SA23). However, the model yielded an improper solution (Table SA7). The information matrix could not be inverted, and standard errors could not be computed.

Model 24: CFA Model With 1 Trait Factor (Threat), Correlated Errors per Scenario, and Correlated Errors Among Positive Items

To reduce the model's complexity, we next specified only two sets of correlated errors: one set among positively worded items and another set among items from the same scenario (Model 24, Figure SA24), similar to Brown (2003)'s model specifying "one factor with method effects" (p. 1417). Similar to Model 14 (Figure SA14, Table 4), which included a method factor (instead of correlated errors) among positively worded items, the model fit was mixed (Table SA7), and a general threat factor was not well defined by the factor loadings.

Model 25: CFA Model With 1 Trait Factor (Threat), Correlated Errors per Scenario, and Correlated Errors Among Negative Items

Next, we specified one set of correlated errors among negatively worded items and another set among items from the same scenario (Model 25, Figure SA25), again similar to Brown (2003)'s model specifying "one factor with method effects" (p. 1417). Similar to Model 15 (Figure SA15, Table 4), which included a method factor (instead of correlated errors) among negatively worded items, the model fit was mixed (Table SA7), and a general factor was not well defined.

Model 26: CFA Model With 1 Trait Factor (Threat) and Correlated Errors per Valence (Positive, Negative)

To consider whether the correlated errors per scenario in Model 23 above had contributed to the improper solution, we next specified one set of correlated errors among positively worded items and one set among negatively worded items, without also specifying a set of correlated errors for items from the same scenario (Model 26, Figure SA26), similar to a model from Bachman and O'Malley (1986, p. 40). However, the model yielded an improper solution (Table SA7) in which the information matrix could not be inverted and standard errors could not be computed. Indeed, specifying correlated errors for both valences typically yields improper solutions (Brown, 2003, p. 1421; Marsh, 1996, pp. 813 and 815).

Model 27: CFA Model With 1 Trait Factor (Threat) and 2 Correlated Method Factors (Positive, Negative)

To determine the feasibility of fitting a single-trait multimethod model based on method factors (see Morin et al., 2020), we next specified two correlated method factors, one among positively worded items and another among negatively worded items, without also specifying correlated errors per scenario (Model 27, Figure SA27). The model resembles others in the literature (see Hazlett-Stevens et al., 2004; Rodebaugh et al., 2006; Rodebaugh et al., 2007, p. 196), although it is unclear whether these examples allowed the method factors to correlate (as recommended by Morin et al.). The general threat factor was not well defined by the factor loadings. Because this single-trait correlated methods model did not yield an improper solution (Table SA7), we next added correlated errors per scenario (yielding Model 13 in the main text, Table 4, Figure SA13).

Section SA2: Preregistration Deviations for Study 1

2.1 Estimation Method

Although we had preregistered to use pairwise maximum likelihood estimation on available cases (PML-AC), which assumes data are indicator-dependent missing at random (ID-MAR; Katsikatsou et al., 2022) instead of missing completely at random (MCAR, assumed by WLSMV with pairwise deletion; Enders, 2010), PML-AC estimation (PML estimator) yielded implausible fit indices for these initial CFA models (i.e., scaled CFIs of 0 for correlated-factor model and 1 for bifactor model) and for most subsequent EFA factor solutions based on all 36 items (i.e., negative chi-square and degrees of freedom and CFI of 1; except for the three-factor solution). Further, we had also preregistered to fit models to Pearson product-moment correlations as a sensitivity analysis using full information maximum likelihood (FIML) estimation with Huber-White robust standard errors and a Yuan-Bentler-scaled test statistic (MLR estimator; see Finney & DiStefano, 2013; Flora, 2020; Rosellini & Brown, 2021), given that we had planned to evaluate the parsimony of CFA models (i.e., propensity to fit random data) using a package currently implemented for only continuous variables (see below). However, FIML yielded fit indices for the initial CFA models that suggested markedly better fit than the indices obtained via WLSMV, and in the subsequent EFAs based on all 36 items, FIML yielded implausibly large standard errors for multiple factor solutions and rotations (possibly due to using a continuous estimator on ordinal data; see Brown, 2015, p. 114). To avoid these issues, we used WLSMV with pairwise deletion for all subsequent factor analyses and did not evaluate model parsimony.

2.2 Model Parsimony

Given that bifactor models tend to overfit data, as noted above we had preregistered to evaluate the parsimony of each model (i.e., propensity to fit random data) using a package (`ockhamSEM`; Falk & Muthukrishna, 2021) implemented for only continuous variables, but we decided against this given issues we encountered using a continuous estimator (FIML) on ordinal RR data.

Supplement A References

(Note: References cited only in this supplement are below. See main text for other references.)

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Rodebaugh, T. L., Woods, C. M., & Heimberg, R. G. (2007). The reverse of social anxiety is not always the opposite: The reverse-scored items of the Social Interaction Anxiety Scale do not belong. *Behavior Therapy, 38*, 192-206. https://doi.org/10.1016/j.beth.2006.08.001

Table SA1

Item Valence and Threat Relevance of Recognition Ratings

Scenario / Item	Item Valence	Threat Relevance
1. THE ELEVATOR: The building looks old, and as you get on the elevator…		
a. You think that the elevator will probably break down while you are on it.	Negative	Related
b. You think that you are going to like your friend's new apartment.	Positive	Unrelated
c. You think about how smelly the lobby is.	Negative	Unrelated
d. You think that riding the elevator will be safe.	Positive	Related
2. THE WEDDING RECEPTION: As you enter the room…		
a. People in the audience laugh in appreciation.	Positive	Related
b. You notice a friend you were hoping to see walk into the reception.	Positive	Unrelated
c. People in the audience find your efforts laughable.	Negative	Related
d. You notice someone you do not like just walked into the reception.	Negative	Unrelated
3. THE JOB: You think about not having an income for a few weeks...		
a. And know that you can rely on your savings.	Positive	Related
b. And are excited about not having to set an alarm.	Positive	Unrelated
c. And worry about becoming broke.	Negative	Related
d. And are sad about leaving your current coworkers.	Negative	Unrelated
4. THE LOUD NOISE: As you walk downstairs…		
a. You feel happy, and think about how lovely your house is.	Positive	Unrelated
b. You feel afraid, and worry that you cannot handle the fear.	Negative	Related
c. You feel afraid, but you know that you can tolerate the feeling.	Positive	Related
d. You feel cold, and think about how the house needs better heating.	Negative	Unrelated
5. MEETING A FRIEND: You arrive a little late, and…		
a. Order your favorite snack.	Positive	Unrelated
b. Notice the bar smells gross.	Negative	Unrelated
c. Get a call from your friend who is on her way, but running late.	Positive	Related
d. Think your friend decided she did not want to see you.	Negative	Related
6. THE LUNCH: Your friend looks at you…		
a. Because she thinks you are a slob.	Negative	Related
b. And you frown because you forgot to bring water to lunch.	Negative	Unrelated

c. Because she is paying attention as you describe your weekend plans.	Positive	Related
d. And you smile because your lunch tastes good.	Positive	Unrelated
7. THE SCRAPE: The scrape hurts a bit...		
a. And you think it will probably get seriously infected.	Negative	Related
b. And you are frustrated because you tore your shorts.	Negative	Unrelated
c. But you know you will be okay.	Positive	Related
d. But you are happy that you are getting exercise.	Positive	Unrelated
8. THE SHOPPING TRIP: You think about your recent health...		
a. And think you are probably coming down with the strange illness.	Negative	Related
b. And think you are unlikely to catch the strange illness.	Positive	Related
c. And smile because you enjoy shopping.	Positive	Unrelated
d. And feel bored of shopping.	Negative	Unrelated
9. THE BLOOD TEST: The doctor says he will call you in a few weeks...		
a. And you think about how nice your doctor is.	Positive	Unrelated
b. And you are annoyed because your doctor is not very friendly.	Negative	Unrelated
c. And you think that you will not be able to tolerate your anxiety while you wait.	Negative	Related
d. And you know that you can handle your anxiety while you wait.	Positive	Related

Note. Only recognition items are shown. When administering the measure, scenarios and items are not numbered and item valence and threat relevance are not provided.

Table SA2

Hyperlinks to Exploratory Factor Loadings by Number of Items and Rotation

Rotation	File	Filename	Hyperlink
All 36 threat and nonthreat items (2-6 factors)			
Oblimin	1	01_all_items_wlsmv_oblimin.pdf	https://osf.io/mtfpe
Geomin	2	02_all_items_wlsmv_geomin.pdf	https://osf.io/8ezyf
Promax	3	03_all_items_wlsmv_promax.pdf	https://osf.io/3mjt8
35 threat and nonthreat items (2-5 factors)			
Oblimin	4	04_red_35_items_wlsmv_oblimin.pdf	https://osf.io/dpbjr
Geomin	5	05_red_35_items_wlsmv_geomin.pdf	https://osf.io/fp2vb
Promax	6	06_red_35_items_wlsmv_promax.pdf	https://osf.io/y8w2f
34 threat and nonthreat items (2-5 factors)			
Oblimin	7	07_red_34_items_wlsmv_oblimin.pdf	https://osf.io/djkb7
Geomin	8	08_red_34_items_wlsmv_geomin.pdf	https://osf.io/8kaxj
Promax	9	09_red_34_items_wlsmv_promax.pdf	https://osf.io/anzd7
33 threat and nonthreat items (2-5 factors)			
Oblimin	10	10_red_33_items_wlsmv_oblimin.pdf	https://osf.io/6vqpd
Geomin	11	11_red_33_items_wlsmv_geomin.pdf	https://osf.io/zs6hm
Promax	12	12_red_33_items_wlsmv_promax.pdf	https://osf.io/kr4sd
32 threat and nonthreat items (2-5 factors)			
Oblimin	13	13_red_32_items_wlsmv_oblimin.pdf	https://osf.io/aktsr
Geomin	14	14_red_32_items_wlsmv_geomin.pdf	https://osf.io/s9u2p
Promax	15	15_red_32_items_wlsmv_promax.pdf	https://osf.io/wtm82
31 threat and nonthreat items (2-5 factors)			
Oblimin	16	16_red_31_items_wlsmv_oblimin.pdf	https://osf.io/32uwb
Geomin	17	17_red_31_items_wlsmv_geomin.pdf	https://osf.io/89m2y
Promax	18	18_red_31_items_wlsmv_promax.pdf	https://osf.io/f4yb9
30 threat and nonthreat items (2-5 factors)			
Oblimin	19	19_red_30_items_wlsmv_oblimin.pdf	https://osf.io/7zjq9
Geomin	20	20_red_30_items_wlsmv_geomin.pdf	https://osf.io/m86qc
Promax	21	21_red_30_items_wlsmv_promax.pdf	https://osf.io/bzxq7
29 threat and nonthreat items (2-4 factors)			
Oblimin	22	22_red_29_items_wlsmv_oblimin.pdf	https://osf.io/sf54j
Geomin	23	23_red_29_items_wlsmv_geomin.pdf	https://osf.io/xwskm
Promax	24	24_red_29_items_wlsmv_promax.pdf	https://osf.io/j96rw
28 threat and nonthreat items (2-4 factors)			
Oblimin	25	25_red_28_items_wlsmv_oblimin.pdf	https://osf.io/nsjdt
Geomin	26	26_red_28_items_wlsmv_geomin.pdf	https://osf.io/fgqnu
Promax	27	27_red_28_items_wlsmv_promax.pdf	https://osf.io/s4bdj
All 16 threat items (1-5 factors)			
Oblimin	28	28_thr_items_wlsmv_oblimin.pdf	https://osf.io/mtk3e
Geomin	29	29_thr_items_wlsmv_geomin.pdf	https://osf.io/2bdfv
Promax	30	30_thr_items_wlsmv_promax.pdf	https://osf.io/pyuqt

Note. All PDF files (each with a corresponding Excel file) are in the "results/efa/summaries (manually created)" folder on the Open Science Framework (https://osf.io/ebn25/).

Table SA3

Fit of Exploratory Factor Analysis Models by Number of Items and Number of Factors

No. factors	χ^2	*df*	*p*	RMSEA	CFI
All 36 threat and nonthreat items					
2	2,618.34	559	< .001	0.100	.730
3	1,680.95	525	< .001	0.089	.801
4	1,446.79	492	< .001	0.085	.830
5	1,199.08	460	< .001	0.081	.855
6	1,010.63	429	< .001	0.077	.878
35 threat and nonthreat items					
2	2,528.15	526	< .001	0.100	.741
3	1,553.28	493	< .001	0.088	.813
4	1,304.82	461	< .001	0.083	.843
5	1,118.08	430	< .001	0.080	.864
34 threat and nonthreat items					
2	2,358.95	494	< .001	0.098	.752
3	1,418.90	462	< .001	0.085	.826
4	1,161.65	431	< .001	0.079	.859
5	998.71	401	< .001	0.076	.878
33 threat and nonthreat items					
2	2,282.57	463	< .001	0.098	.759
3	1,314.89	432	< .001	0.084	.836
4	1,052.39	402	< .001	0.078	.869
5	889.43	373	< .001	0.073	.892
32 threat and nonthreat items					
2	2,164.24	433	< .001	0.097	.772
3	1,165.22	403	< .001	0.081	.850
4	900.53	374	< .001	0.074	.884
5	736.17	346	< .001	0.071	.903
31 threat and nonthreat items					
2	2,063.85	404	< .001	0.096	.783
3	1,036.31	375	< .001	0.079	.864
4	757.20	347	< .001	0.071	.898
5	629.11	320	< .001	0.068	.913
30 threat and nonthreat items					
2	1,968.23	376	< .001	0.097	.785
3	972.08	348	< .001	0.080	.863
4	692.80	321	< .001	0.071	.901
5	575.87	295	< .001	0.069	.914
29 threat and nonthreat items					
2	1,842.20	349	< .001	0.094	.795
3	852.91	322	< .001	0.077	.875
4	648.31	296	< .001	0.071	.902
28 threat and nonthreat items					
2	1,789.05	323	< .001	0.095	.795

3	817.49	297	< .001	0.078	.873
4	615.39	272	< .001	0.072	.902
All 18 threat items					
1	2,237.48	135	< .001	0.165	.425
2	1,179.46	118	< .001	0.138	.651
3	734.08	102	< .001	0.120	.772
4	549.37	87	< .001	0.111	.832
5	360.58	73	< .001	0.102	.880

Note. Models were fit to polychoric correlations using diagonally weighted least squares (DWLS) estimation with robust standard errors and a mean- and variance-adjusted χ^2 (`WLSMV` estimator with pairwise deletion). Robust RMSEA and CFI (Savalei, 2021) are shown. Traditional guidelines for "relatively good" fit are nonsignificant χ^2, RMSEA near or < 0.06, and CFI near or > .95 (Hu & Bentler, 1999). No index met the guidelines. RMSEA = root mean square error of approximation; CFI = comparative fit index.

Table SA4

Significant Modification Indices for Model 5

Correlated Error				
Item 1	Item 2	MI	EPC	SEPC
pos_thr_lunch_6c	**neg_thr_lunch_6a**	**60.01**	**0.31**	**.51**
pos_thr_blood_test_9d	**neg_thr_blood_test_9c**	**47.98**	**0.29**	**.56**
pos_thr_shopping_8b	**neg_thr_shopping_8a**	**24.87**	**0.19**	**.27**
pos_thr_lunch_6c	pos_thr_scrape_7c	15.05	-0.16	-.25
pos_thr_shopping_8b	neg_thr_blood_test_9c	14.94	-0.17	-.25
pos_thr_noise_4c	**neg_thr_noise_4b**	**13.95**	**0.16**	**.28**
pos_thr_lunch_6c	neg_thr_shopping_8a	12.57	-0.15	-.22
pos_thr_noise_4c	pos_thr_blood_test_9d	11.35	-0.16	-.30
pos_thr_lunch_6c	neg_thr_blood_test_9c	11.07	-0.15	-.23
neg_thr_elevator_1a	neg_thr_shopping_8a	10.79	-0.13	-.20
pos_thr_scrape_7c	neg_thr_blood_test_9c	9.33	-0.14	-.23
neg_thr_shopping_8a	neg_thr_blood_test_9c	8.83	-0.11	-.17
pos_thr_blood_test_9d	neg_thr_shopping_8a	8.64	-0.13	-.24
neg_non_elevator_1c	neg_non_meeting_friend_5b	8.42	-0.10	-.26
pos_non_wedding_2b	neg_non_wedding_2d	7.91	-0.09	-.25
neg_thr_lunch_6a	neg_thr_meeting_friend_5d	7.91	-0.11	-.23
pos_thr_lunch_6c	pos_thr_blood_test_9d	7.82	0.13	.22
pos_thr_blood_test_9d	neg_thr_lunch_6a	7.77	-0.13	-.27
neg_thr_shopping_8a	neg_non_shopping_8d	7.67	0.13	.20
pos_thr_scrape_7c	pos_non_elevator_1b	6.42	-0.12	-.18
pos_thr_shopping_8b	neg_thr_lunch_6a	5.93	-0.11	-.17
neg_non_shopping_8d	neg_non_blood_test_9b	5.86	-0.08	-.16
neg_thr_job_3c	pos_non_job_3b	5.83	0.13	.29
neg_thr_noise_4b	neg_non_job_3d	5.11	-0.10	-.19
neg_thr_noise_4b	neg_thr_blood_test_9c	4.59	-0.08	-.15
neg_thr_shopping_8a	pos_non_meeting_friend_5a	4.58	-0.10	-.19
pos_thr_lunch_6c	pos_non_shopping_8c	4.53	-0.09	-.15
neg_thr_noise_4b	pos_non_noise_4a	4.37	0.14	.29
pos_thr_noise_4c	neg_thr_lunch_6a	4.35	-0.09	-.17
pos_thr_shopping_8b	neg_non_wedding_2d	4.24	0.11	.21
pos_thr_noise_4c	pos_thr_scrape_7c	4.20	0.10	.16
pos_non_job_3b	pos_non_meeting_friend_5a	4.11	-0.08	-.16
pos_thr_scrape_7c	pos_non_noise_4a	4.07	0.15	.28
neg_thr_elevator_1a	pos_non_shopping_8c	3.92	-0.10	-.16
pos_non_wedding_2b	neg_non_shopping_8d	3.85	0.08	.17

Note. Significant modification indices (> 3.84, $p < .05$) are shown. Modification indices for correlated errors of items from the same scenario are in boldface. MI = modification index; EPC = expected parameter change; SEPC = completely standardized expected parameter change.

Table SA5

Significant Modification Indices for Model 9

Correlated Error				
Item 1	Item 2	MI	EPC	SEPC
pos_thr_scrape_7c	**neg_thr_scrape_7a**	**114.19**	**0.43**	**.62**
pos_thr_blood_test_9d	**neg_thr_blood_test_9c**	**93.77**	**0.37**	**.63**
pos_thr_lunch_6c	**neg_thr_lunch_6a**	**63.42**	**0.32**	**.53**
pos_thr_elevator_1d	**neg_thr_elevator_1a**	**60.16**	**0.28**	**.41**
pos_thr_job_3a	**neg_thr_job_3c**	**58.64**	**0.35**	**.54**
pos_thr_meeting_friend_5c	**neg_thr_meeting_friend_5d**	**51.39**	**0.32**	**.54**
pos_thr_wedding_2a	**neg_thr_wedding_2c**	**46.78**	**0.27**	**.34**
neg_thr_scrape_7a	neg_thr_shopping_8a	43.82	-0.25	-.40
pos_thr_shopping_8b	**neg_thr_shopping_8a**	**36.11**	**0.23**	**.35**
neg_thr_job_3c	neg_thr_scrape_7a	26.34	0.26	.42
pos_thr_job_3a	neg_thr_scrape_7a	22.11	-0.23	-.33
pos_thr_noise_4c	**neg_thr_noise_4b**	**19.98**	**0.19**	**.33**
pos_thr_noise_4c	pos_thr_blood_test_9d	19.08	-0.18	-.31
pos_thr_lunch_6c	pos_thr_scrape_7c	16.87	-0.16	-.22
pos_thr_meeting_friend_5c	neg_thr_blood_test_9c	13.67	-0.17	-.26
pos_thr_scrape_7c	neg_thr_job_3c	13.12	-0.18	-.27
neg_thr_wedding_2c	neg_thr_job_3c	12.03	-0.15	-.22
pos_thr_meeting_friend_5c	pos_thr_scrape_7c	11.97	0.16	.22
neg_thr_wedding_2c	neg_thr_meeting_friend_5d	11.48	-0.13	-.20
pos_thr_meeting_friend_5c	neg_thr_scrape_7a	11.19	-0.16	-.25
pos_thr_scrape_7c	neg_thr_wedding_2c	11.18	-0.15	-.20
pos_thr_job_3a	pos_thr_meeting_friend_5c	10.50	-0.14	-.20
neg_thr_wedding_2c	neg_thr_shopping_8a	10.13	0.13	.20
pos_thr_shopping_8b	neg_thr_blood_test_9c	8.90	-0.13	-.19
pos_thr_elevator_1d	neg_thr_blood_test_9c	8.89	-0.13	-.19
neg_thr_wedding_2c	neg_thr_scrape_7a	8.74	0.13	.20
neg_thr_noise_4b	neg_thr_blood_test_9c	8.71	-0.11	-.19
neg_thr_shopping_8a	neg_thr_meeting_friend_5d	8.70	0.12	.21
neg_thr_job_3c	neg_thr_shopping_8a	8.69	0.14	.24
pos_thr_elevator_1d	pos_thr_wedding_2a	8.53	-0.12	-.15
pos_thr_job_3a	neg_thr_wedding_2c	7.98	0.12	.17
pos_thr_blood_test_9d	neg_thr_meeting_friend_5d	7.90	-0.13	-.24
neg_thr_shopping_8a	neg_thr_blood_test_9c	7.80	-0.10	-.16
pos_thr_elevator_1d	pos_thr_blood_test_9d	7.58	0.12	.19
pos_thr_elevator_1d	neg_thr_scrape_7a	7.53	-0.13	-.19
pos_thr_lunch_6c	neg_thr_shopping_8a	7.31	-0.12	-.18
pos_thr_scrape_7c	neg_thr_meeting_friend_5d	6.84	-0.12	-.19
pos_thr_wedding_2a	pos_thr_job_3a	6.79	-0.11	-.14
neg_thr_lunch_6a	neg_thr_meeting_friend_5d	6.72	-0.10	-.19
pos_thr_wedding_2a	neg_thr_elevator_1a	6.71	-0.12	-.16
pos_thr_noise_4c	neg_thr_job_3c	6.46	-0.13	-.22

neg_thr_blood_test_9c	neg_thr_meeting_friend_5d	6.45	0.10	.18
neg_thr_job_3c	neg_thr_meeting_friend_5d	6.28	-0.10	-.18
pos_thr_job_3a	pos_thr_blood_test_9d	6.09	0.11	.17
pos_thr_shopping_8b	neg_thr_lunch_6a	5.87	-0.11	-.17
pos_thr_noise_4c	neg_thr_wedding_2c	5.79	-0.11	-.16
pos_thr_wedding_2a	pos_thr_blood_test_9d	5.74	0.11	.16
pos_thr_job_3a	pos_thr_scrape_7c	5.53	0.11	.15
pos_thr_wedding_2a	pos_thr_shopping_8b	5.45	0.10	.13
pos_thr_job_3a	neg_thr_blood_test_9c	5.37	-0.10	-.16
pos_thr_scrape_7c	pos_thr_blood_test_9d	5.26	-0.09	-.14
pos_thr_lunch_6c	neg_thr_blood_test_9c	5.09	-0.10	-.15
pos_thr_wedding_2a	pos_thr_meeting_friend_5c	4.96	-0.09	-.13
pos_thr_job_3a	neg_thr_lunch_6a	4.80	-0.10	-.16
neg_thr_scrape_7a	neg_thr_meeting_friend_5d	4.73	0.10	.18
pos_thr_elevator_1d	pos_thr_job_3a	4.60	-0.09	-.12
pos_thr_wedding_2a	neg_thr_scrape_7a	4.27	-0.10	-.13
pos_thr_scrape_7c	neg_thr_noise_4b	4.24	-0.09	-.14
pos_thr_lunch_6c	pos_thr_blood_test_9d	4.10	0.09	.14
pos_thr_noise_4c	pos_thr_lunch_6c	4.02	0.08	.13
neg_thr_scrape_7a	neg_thr_blood_test_9c	4.00	-0.08	-.13
neg_thr_elevator_1a	neg_thr_blood_test_9c	3.93	0.08	.14
pos_thr_wedding_2a	pos_thr_scrape_7c	3.89	0.09	.11
pos_thr_meeting_friend_5c	neg_thr_shopping_8a	3.87	-0.09	-.15
pos_thr_meeting_friend_5c	neg_thr_wedding_2c	3.85	0.09	.13

Note. Significant modification indices (> 3.84, $p < .05$) are shown. Modification indices for correlated errors of items from the same scenario are in boldface. MI = modification index; EPC = expected parameter change; SEPC = completely standardized expected parameter change.

Table SA6

Fit of Revised Confirmatory Factor Analysis Models With Method Effects for Positive Versus Negative Wording, Based on 28 Threat and Nonthreat Items

Model	χ^2	*df*	*p*	SRMR	RMSEA	CFI	TLI
18. 2 correlated trait factors (threat, nonthreat) and 4 correlated method factors (1 pos. and 1 neg. per trait)				Improper solution			
19. 2 correlated trait factors (threat, nonthreat) and 2 correlated method factors (pos. and neg. for threat trait)				Improper solution			
20. 2 correlated trait factors (threat, nonthreat) and 2 orthogonal method factors (pos. and neg. for threat trait)				Improper solution			
21. 2 correlated trait factors (threat, nonthreat) and correlated errors per scenario and valence (pos., neg.) for threat items				Improper solution			
22. 2 correlated trait factors (threat, nonthreat), correlated errors per scenario for threat items, and correlated errors among pos. threat items	1,907.75	335	< .001	.109	0.087	.824	0.801

Note. Models were fit to polychoric correlations using diagonally weighted least squares (DWLS) estimation with robust standard errors and a mean- and variance-adjusted χ^2 (`WLSMV` estimator with pairwise deletion). Robust RMSEA, CFI, and TLI (Savalei, 2021) are shown. Traditional guidelines for "relatively good" fit are nonsignificant χ^2, SRMR near or < .08, RMSEA near or < 0.06, and CFI and TLI near or > .95 (Hu & Bentler, 1999). Indices meeting the guidelines are in boldface. SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index.

Table SA7

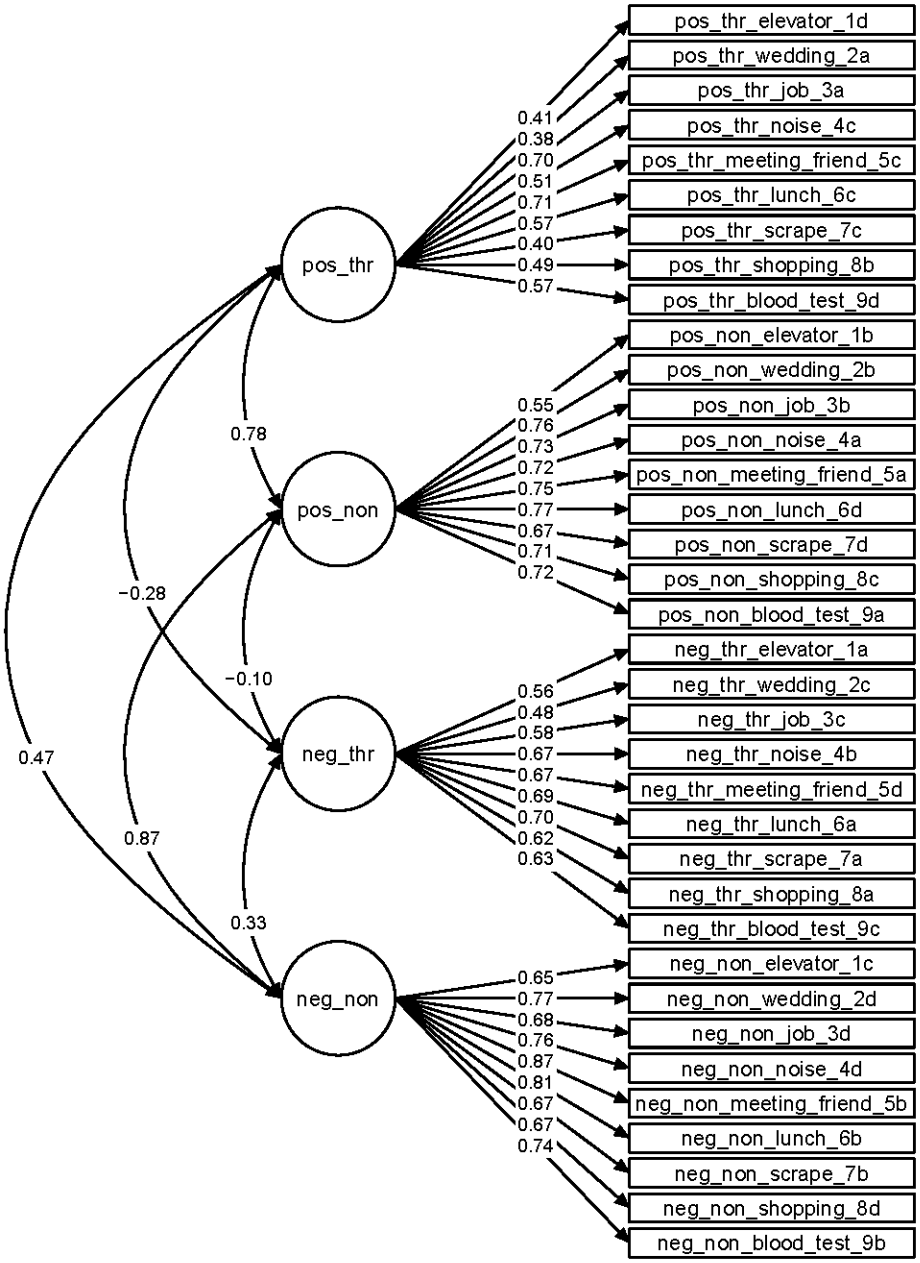
Fit of Revised Confirmatory Factor Analysis Models With Method Effects for Positive Versus Negative Wording, Based on All 18 Threat Items

Model	χ^2	*df*	*p*	SRMR	RMSEA	CFI	TLI
23. 1 trait factor (threat), correlated errors per scenario, and correlated errors per valence (pos., neg.)	Improper solution						
24. 1 trait factor (threat), correlated errors per scenario, and correlated errors among pos. items	383.24	90	< .001	**.052**	0.080	.909	0.845
25. 1 trait factor (threat), correlated errors per scenario, and correlated errors among neg. items	378.86	90	< .001	**.055**	0.083	.903	0.835
26. 1 trait factor (threat) and correlated errors per valence (pos., neg.)	Improper solution						
27. 1 trait factor (threat) and 2 correlated method factors (pos., neg.)	731.45	116	< .001	**.068**	0.117	.751	0.672

Note. Models were fit to polychoric correlations using diagonally weighted least squares (DWLS) estimation with robust standard errors and a mean- and variance-adjusted χ^2 (`WLSMV` estimator with pairwise deletion). Robust RMSEA, CFI, and TLI (Savalei, 2021) are shown. Traditional guidelines for "relatively good" fit are nonsignificant χ^2, SRMR near or < .08, RMSEA near or < 0.06, and CFI and TLI near or > .95 (Hu & Bentler, 1999). Indices meeting the guidelines are in boldface. SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index.

Figure SA1

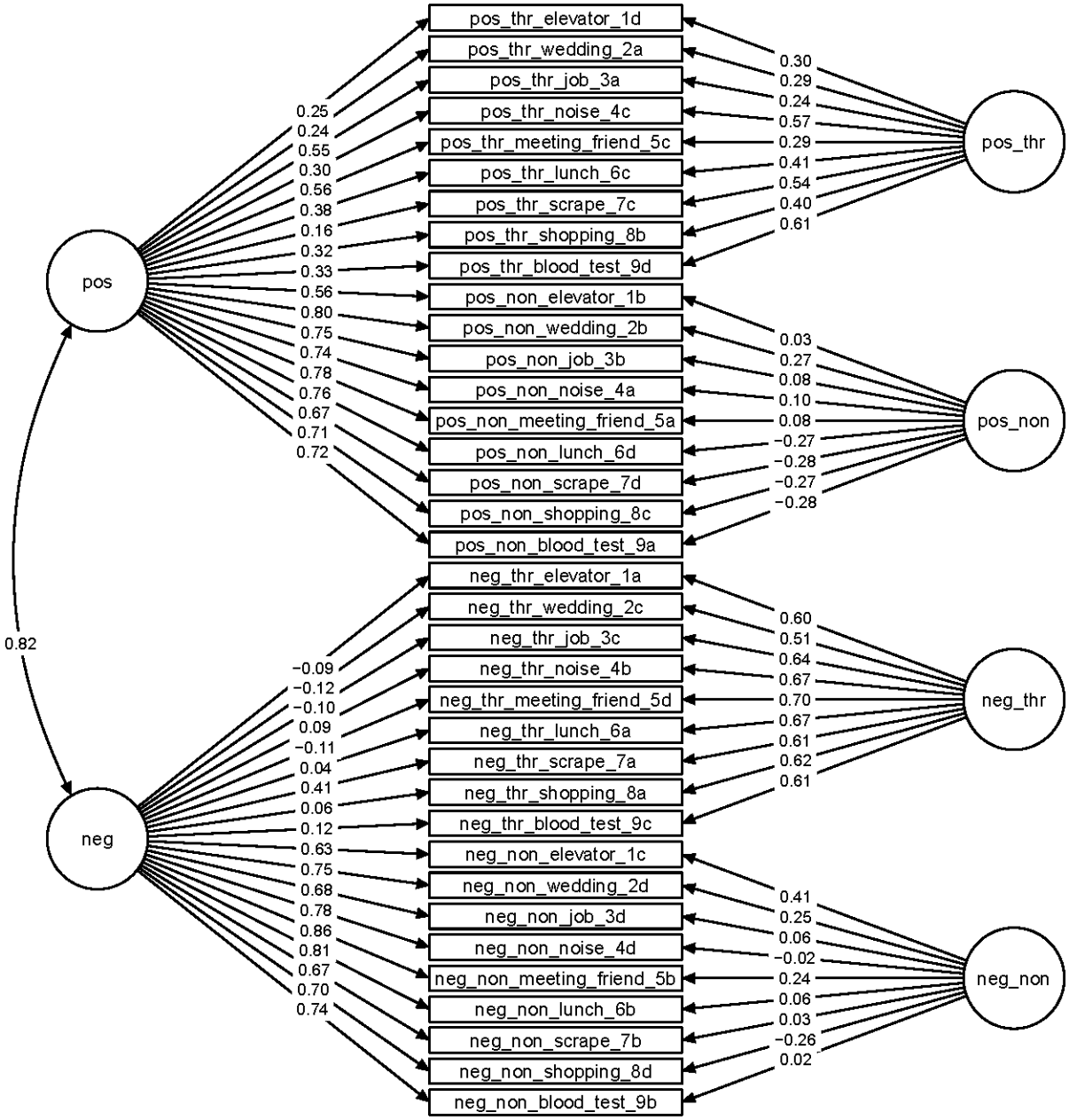
Model 1: CFA Model With 4 Correlated Factors (Positive Threat, Positive Nonthreat, Negative Threat, Negative Nonthreat), Based on All 36 Threat and Nonthreat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA2

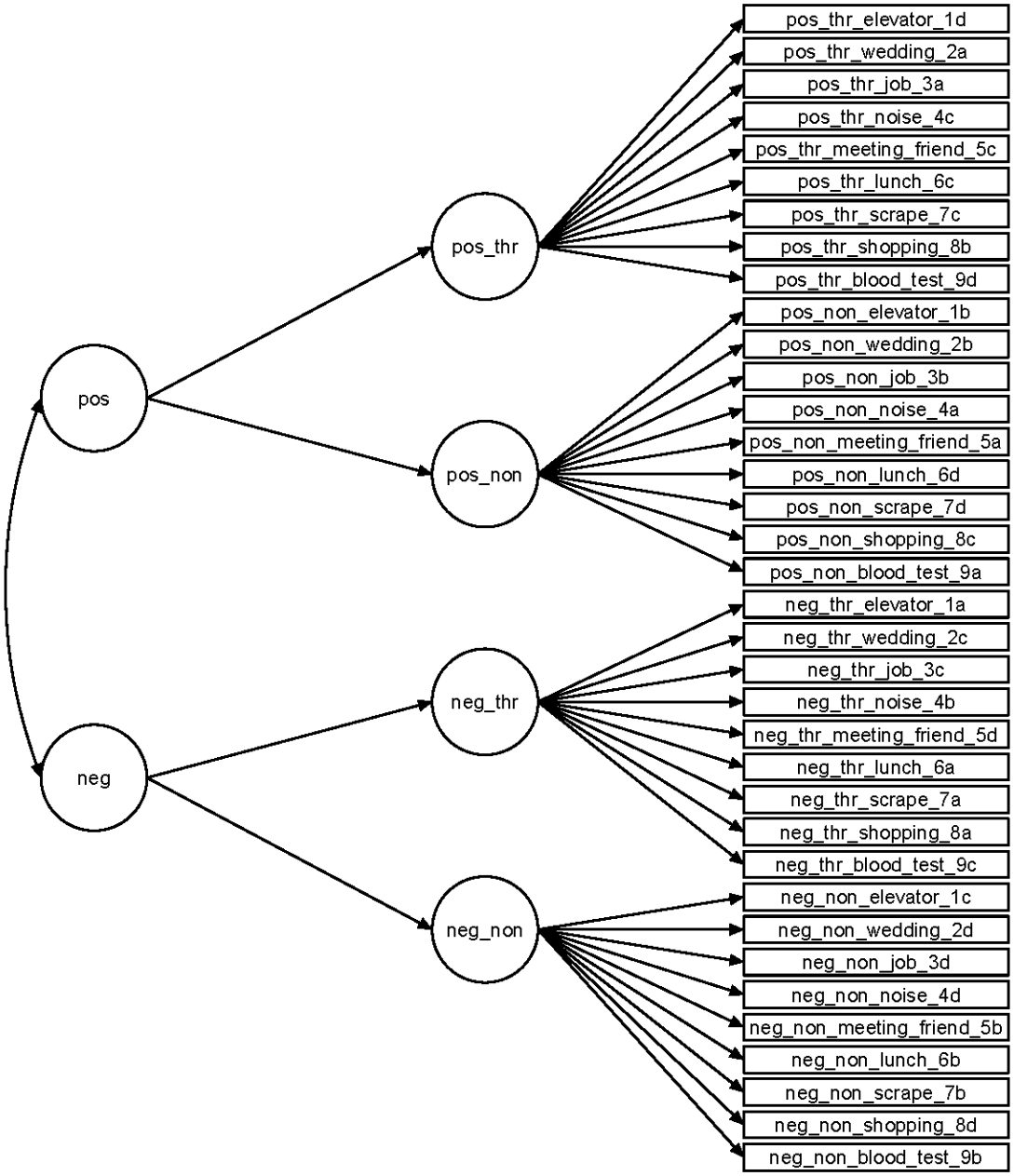
Model 2: CFA Bifactor Model With 2 General Factors (Positive, Negative), Each With 2 Specific Factors (Threat, Nonthreat), Based on All 36 Threat and Nonthreat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA3

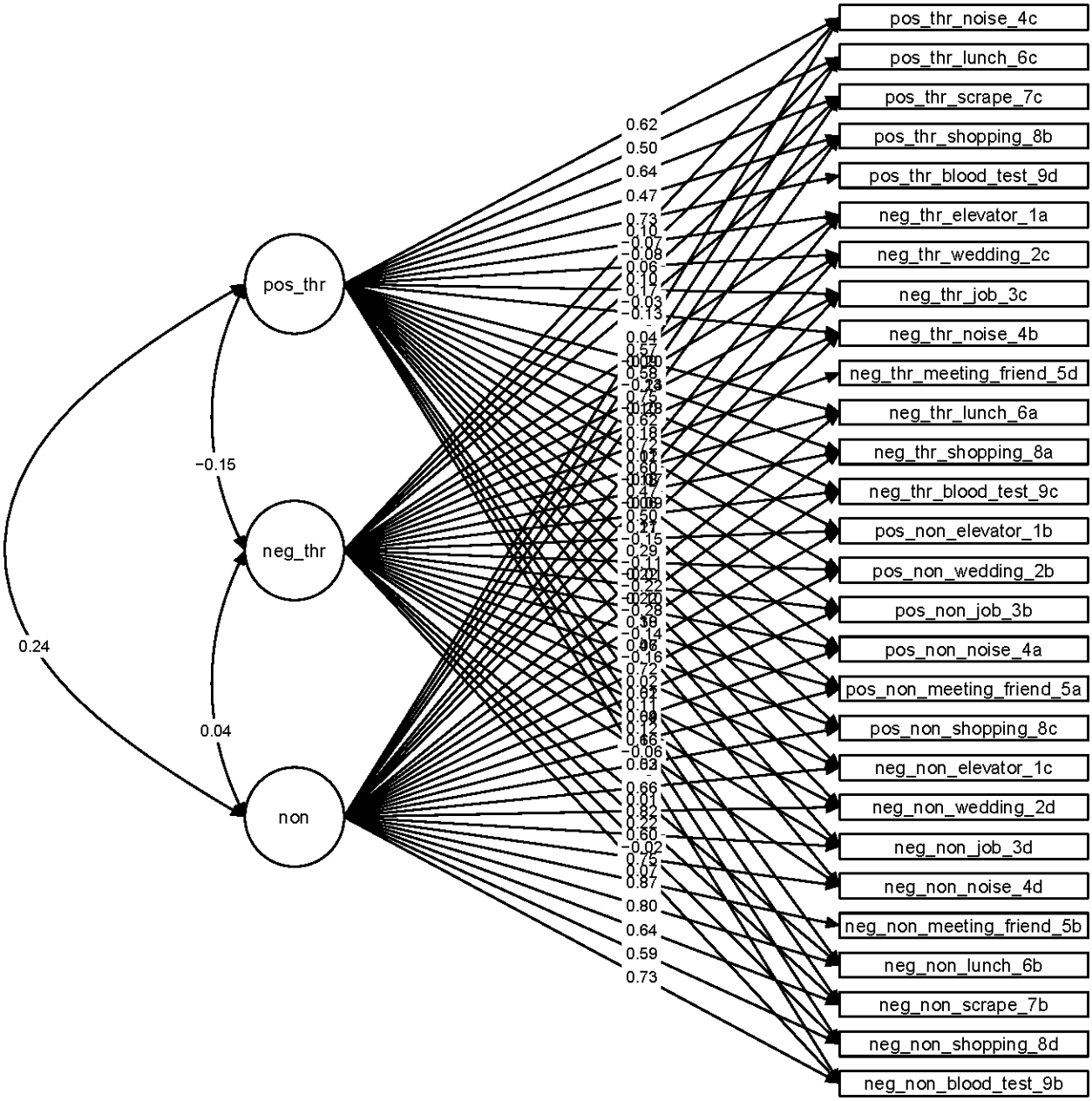
Model 3: CFA Higher-Order Model With 2 Second-Order Factors (Positive, Negative), Each With 2 First-Order Factors (Threat, Nonthreat), Based on All 36 Threat and Nonthreat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA4

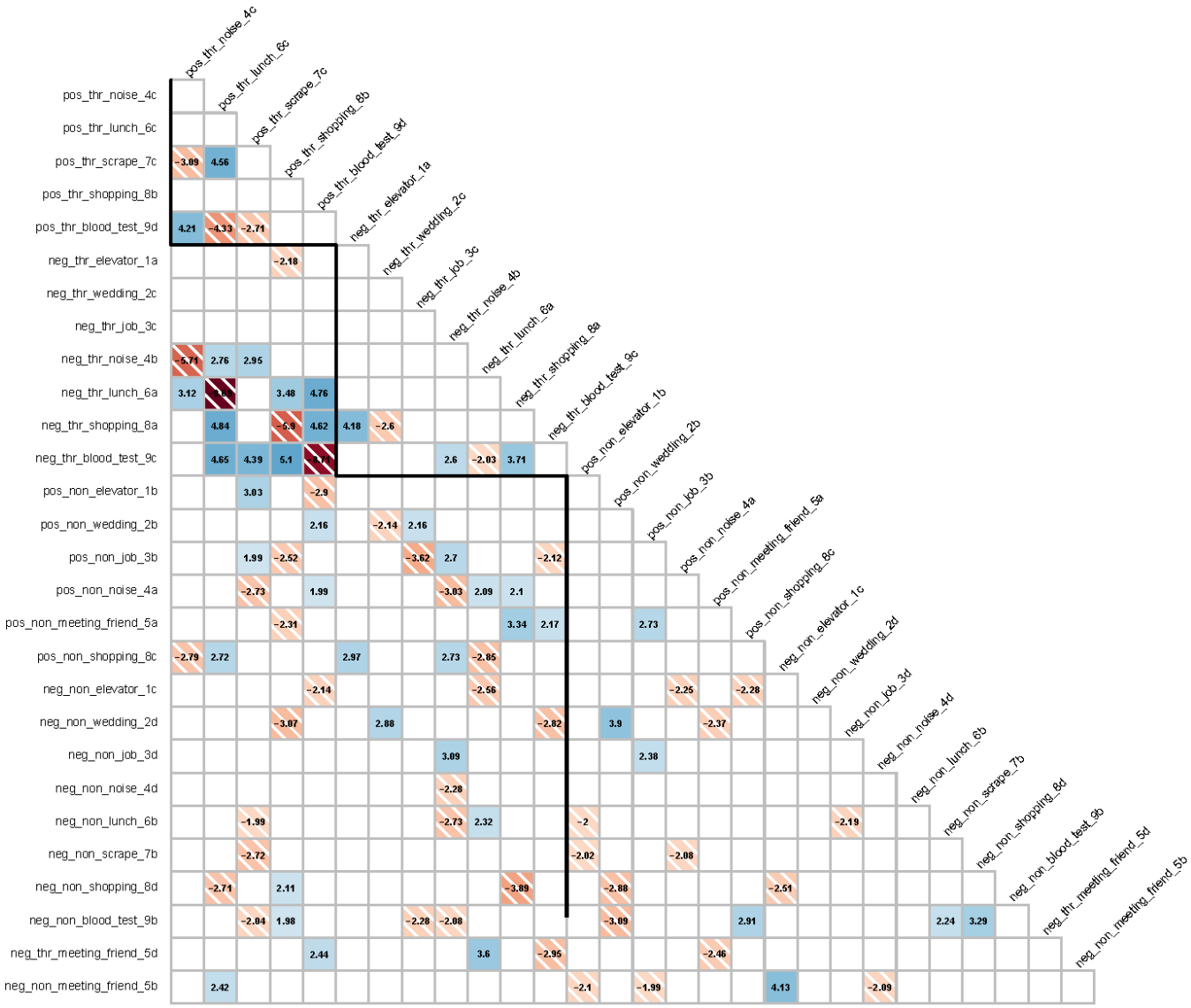
Model 4: EFA in CFA Model With 3 Correlated Factors (Positive Threat, Negative Threat, Nonthreat), Based on 28 Threat and Nonthreat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion). Factor loadings are similar to those from three-factor EFA models based on these 28 items (e.g., for oblimin rotation, see https://osf.io/nsjdt; for all rotations, see Files 25-27 in Table SA2). All primary loadings are ≥ .30, and all cross-loadings are < .30.

Figure SA5

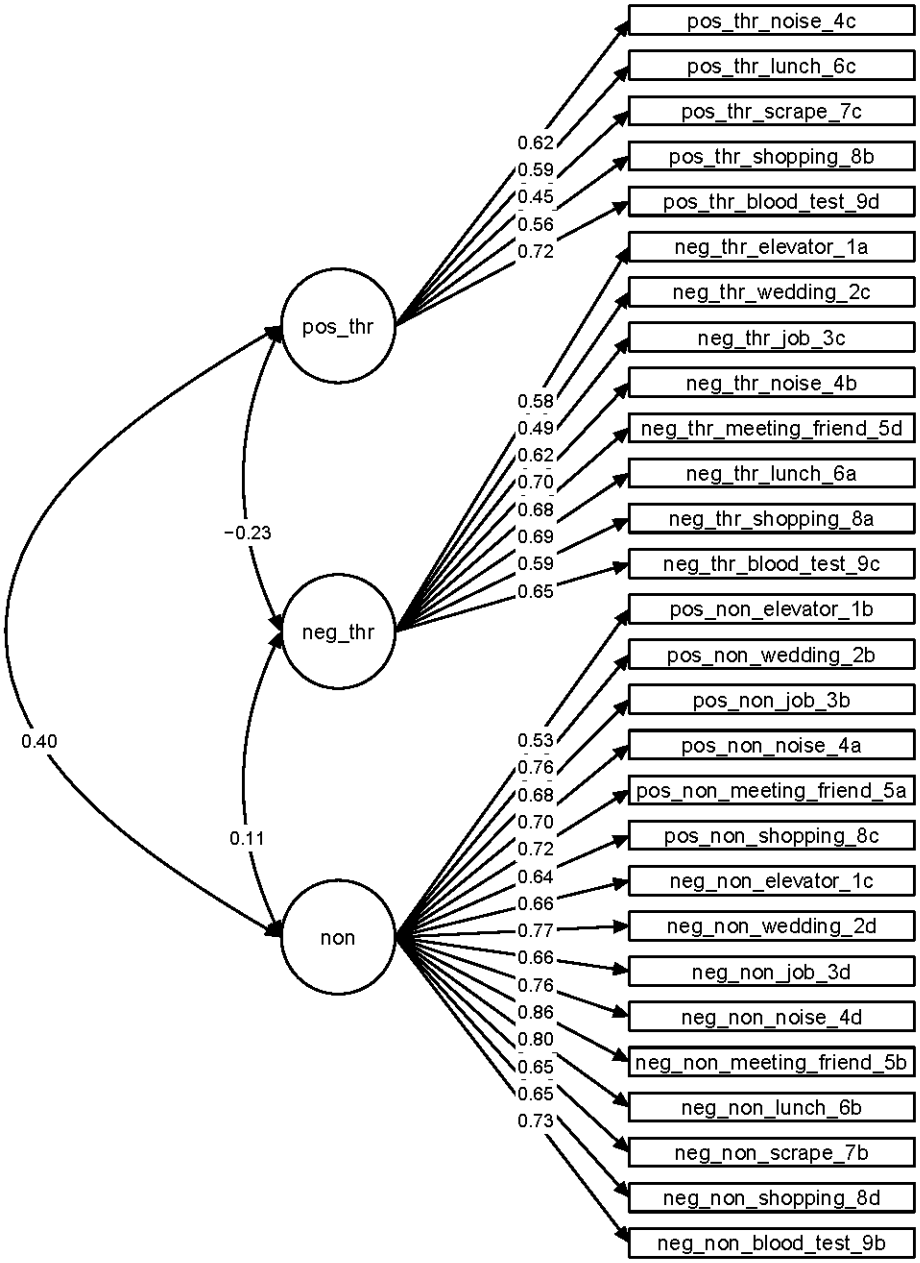
Significant Standardized Residuals for Model 4



Note. Significant standardized residuals (> 1.96, $p < .05$) are shown. Positive residuals are in solid blue; negative residuals are in striped red. The residuals of greatest magnitude are those between the positive threat and negative threat items from the same scenario (Noise = -5.71, Lunch = -9.69, Shopping = -5.90, Blood Test = -8.71).

Figure SA6

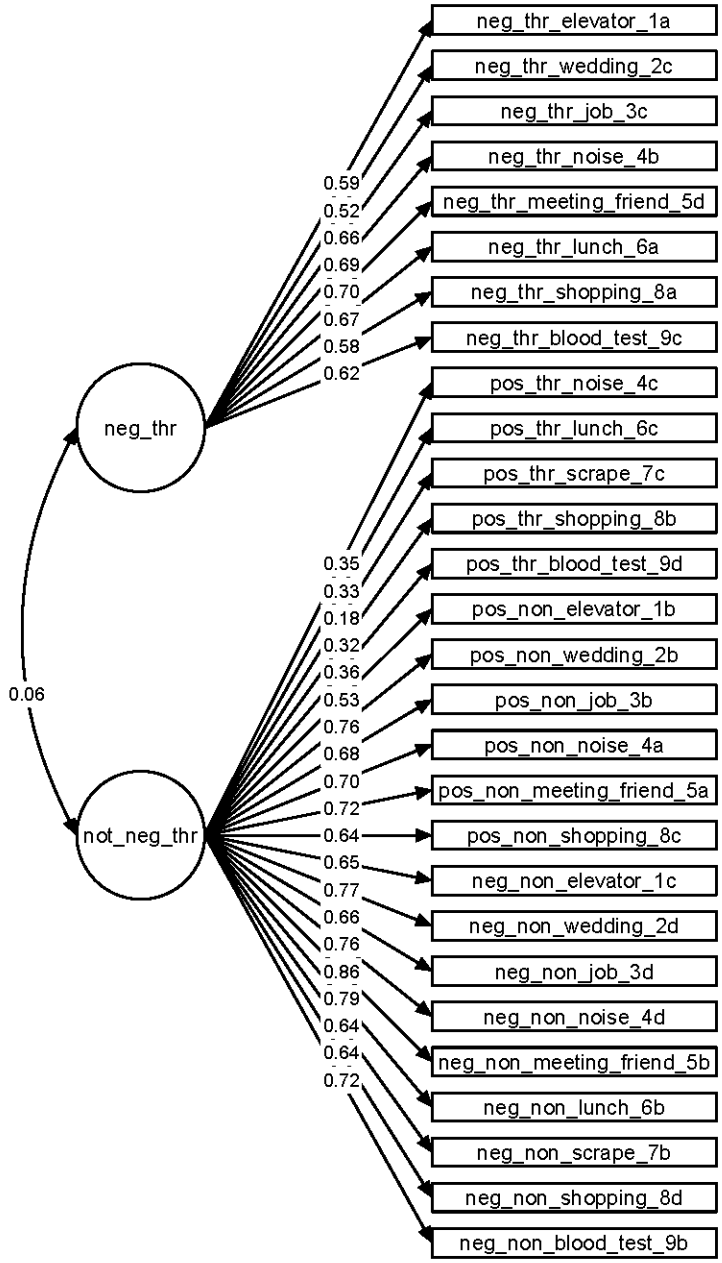
Model 5: CFA Model With 3 Correlated Factors (Positive Threat, Negative Threat, Nonthreat), Based on 28 Threat and Nonthreat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA7

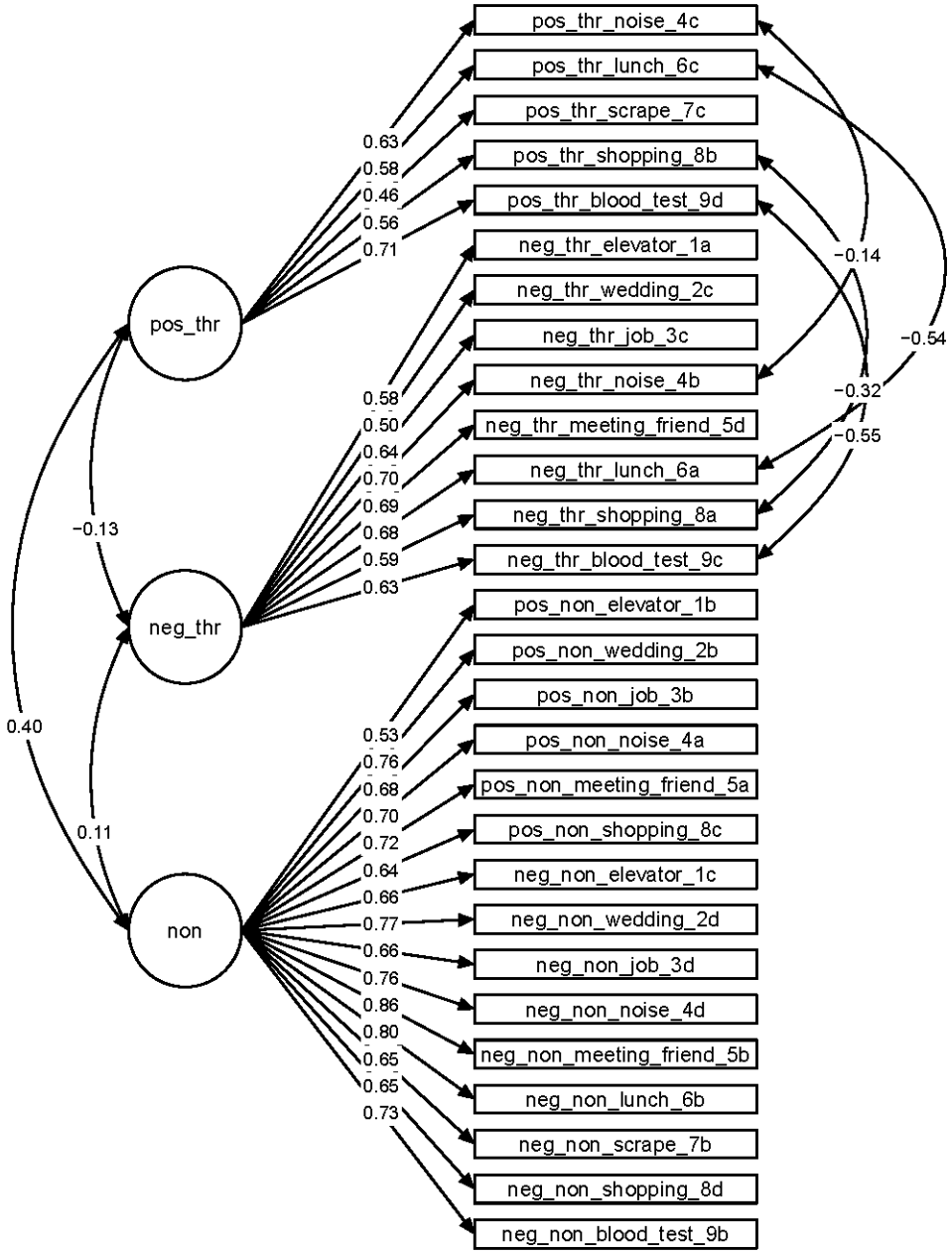
Model 6: CFA Model With 2 Correlated Factors (Negative Threat, Not Negative Threat), Based on 28 Threat and Nonthreat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA8

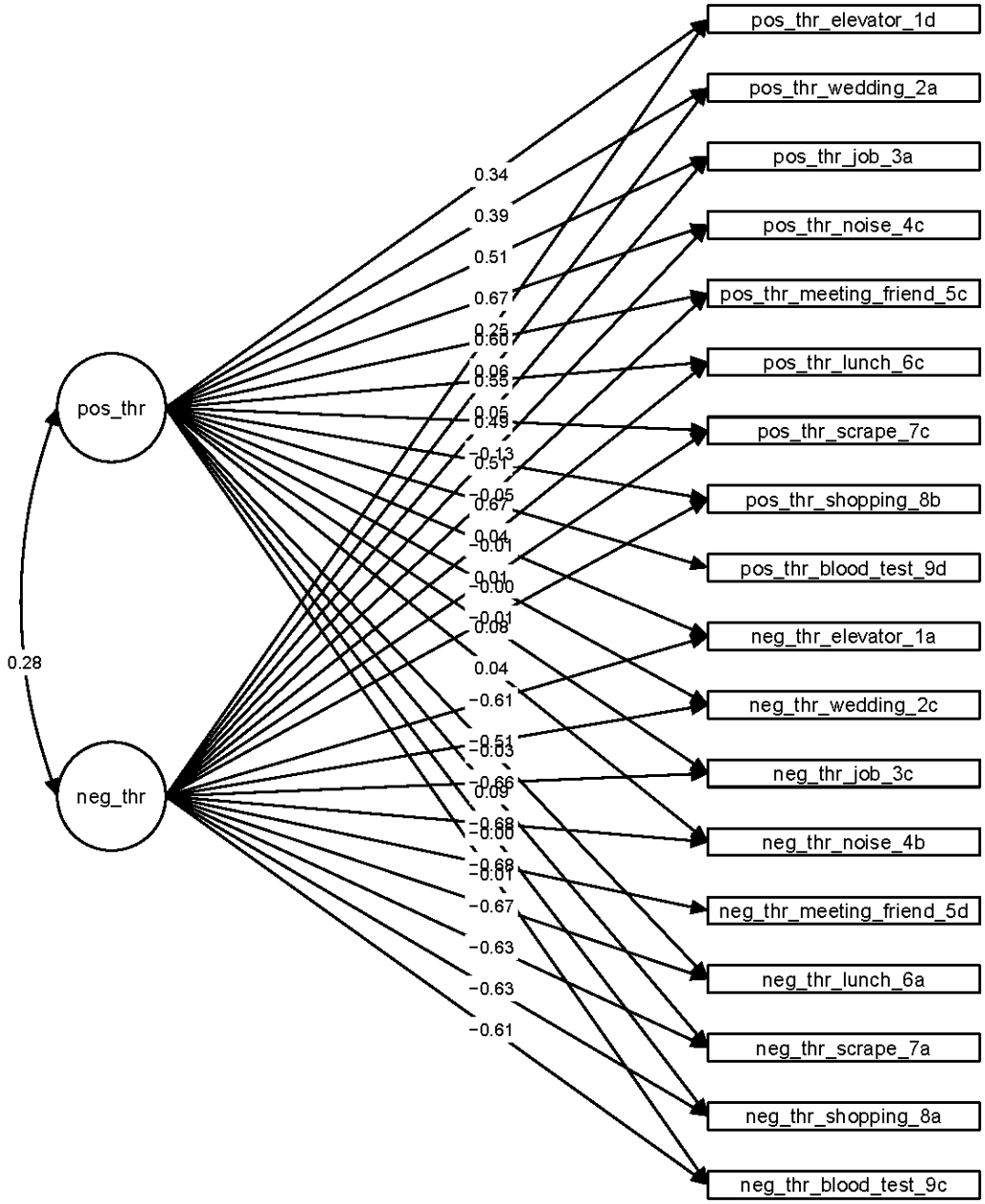
Model 7: CFA Model With 3 Correlated Factors (Positive Threat, Negative Threat, Nonthreat) and Correlated Errors per Scenario for Threat Items, Based on 28 Threat and Nonthreat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA9

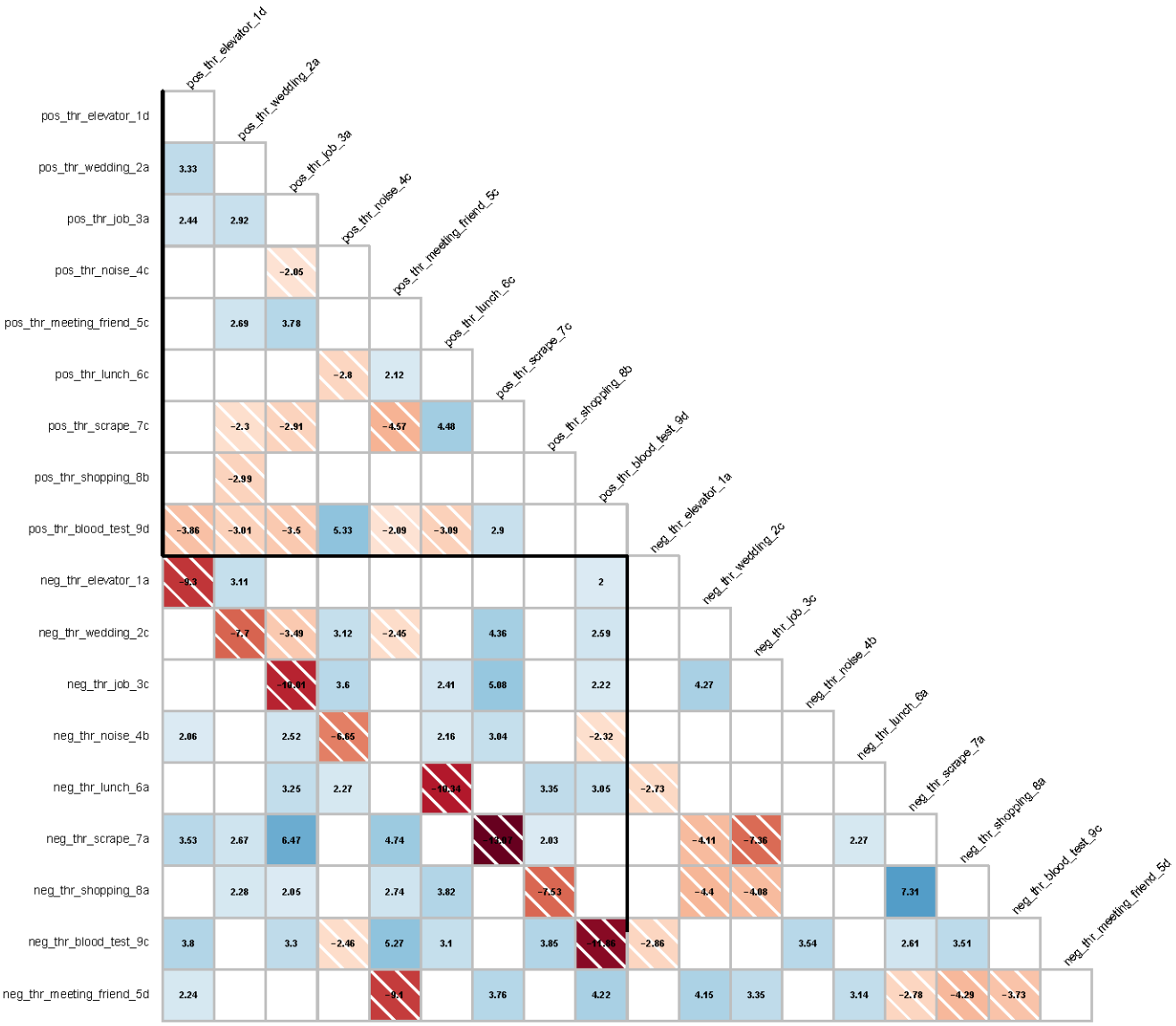
Model 9: EFA in CFA Model With 2 Correlated Factors (Positive Threat, Negative Threat), Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion). Factor loadings are similar to those from two-factor EFA models based on these 18 items (e.g., for oblimin rotation, see https://osf.io/mtk3e; for all rotations, see Files 28-30 in Table SA2). All primary loadings are ≥ .30, and all cross-loadings are < .30.

Figure SA10

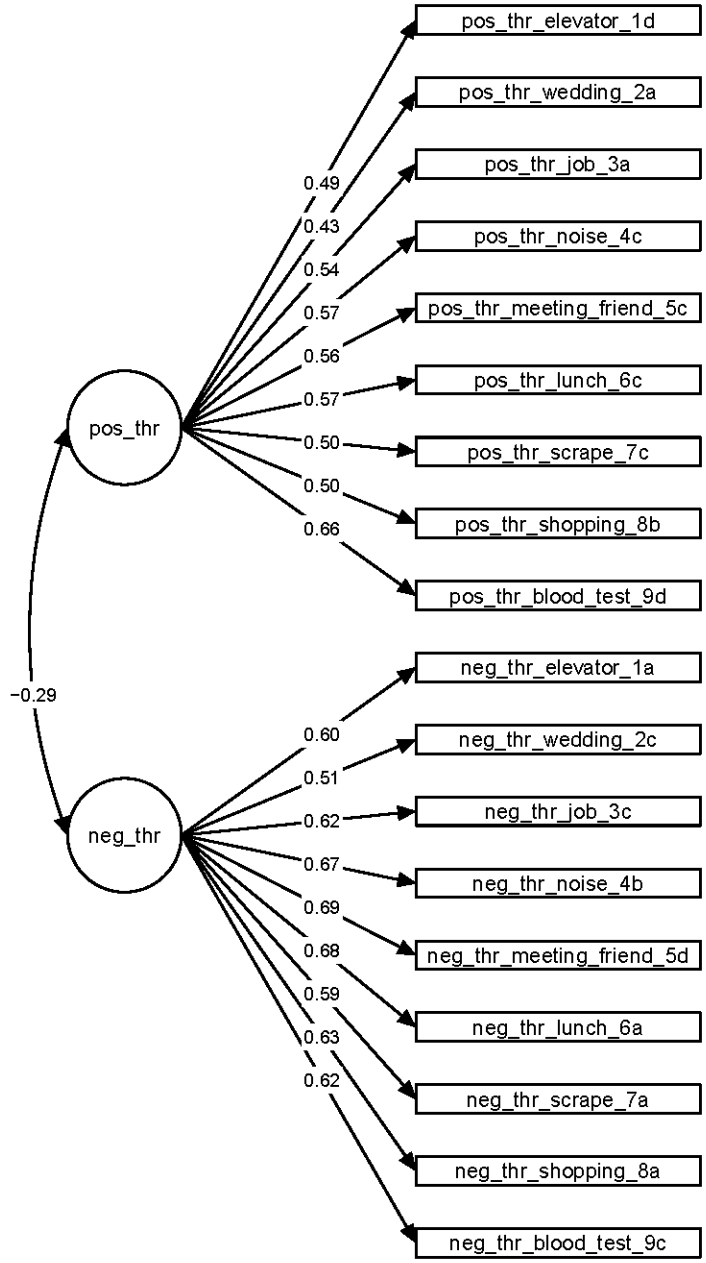
Significant Standardized Residuals for Model 9



Note. Significant standardized residuals (> 1.96, $p < .05$) are shown. Positive residuals are in solid blue; negative residuals are in striped red. The residuals of greatest magnitude are those between the positive threat and negative threat items from the same scenario (Elevator = -9.30, Wedding = -7.70, Job = -10.01, Noise = -6.65, Meeting Friend = -9.10, Lunch = -10.34, Scrape = -13.07, Shopping = -7.53, Blood Test = -11.86).

Figure SA11

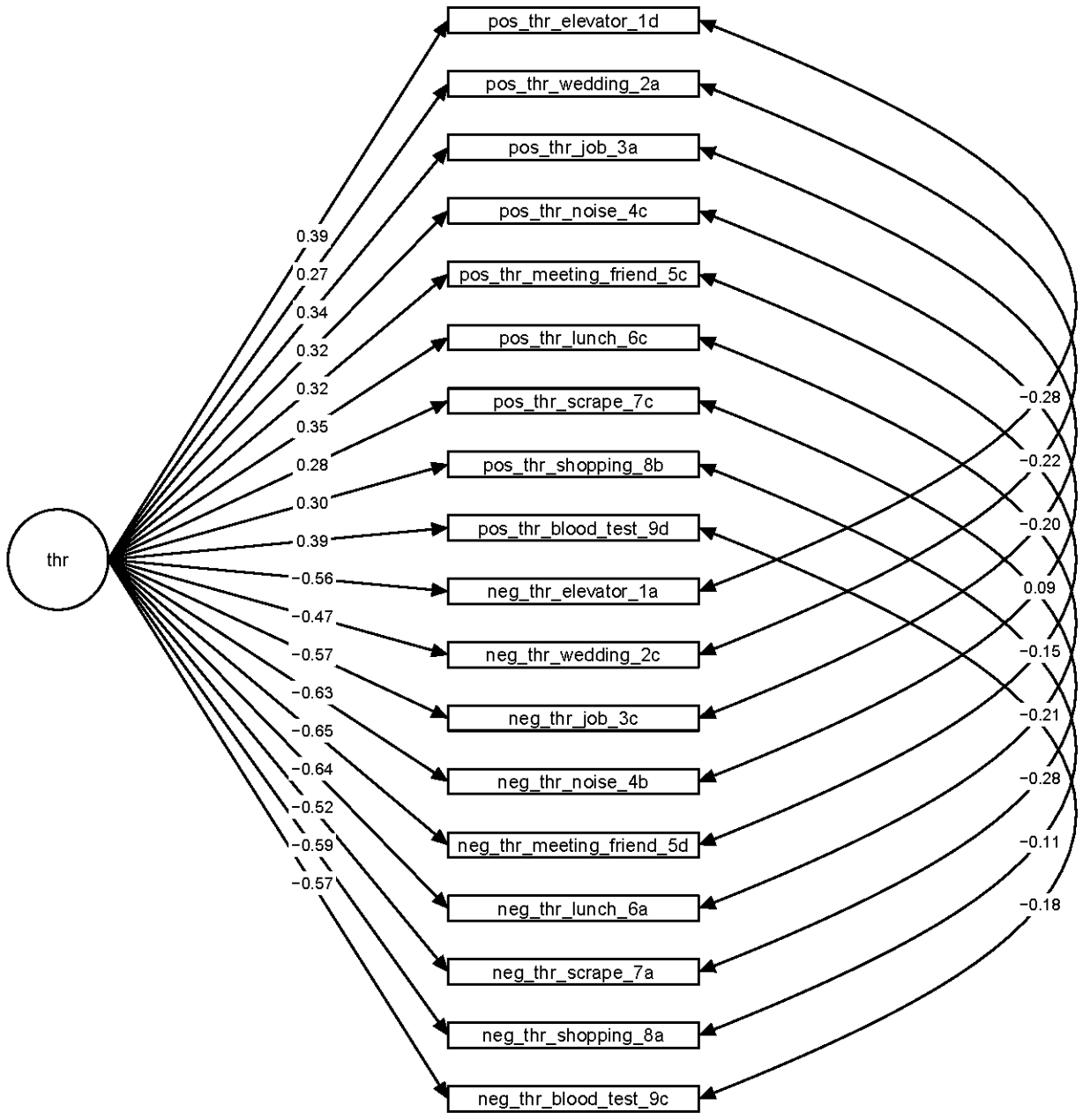
Model 10: CFA Model With 2 Correlated Factors (Positive Threat, Negative Threat), Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA12

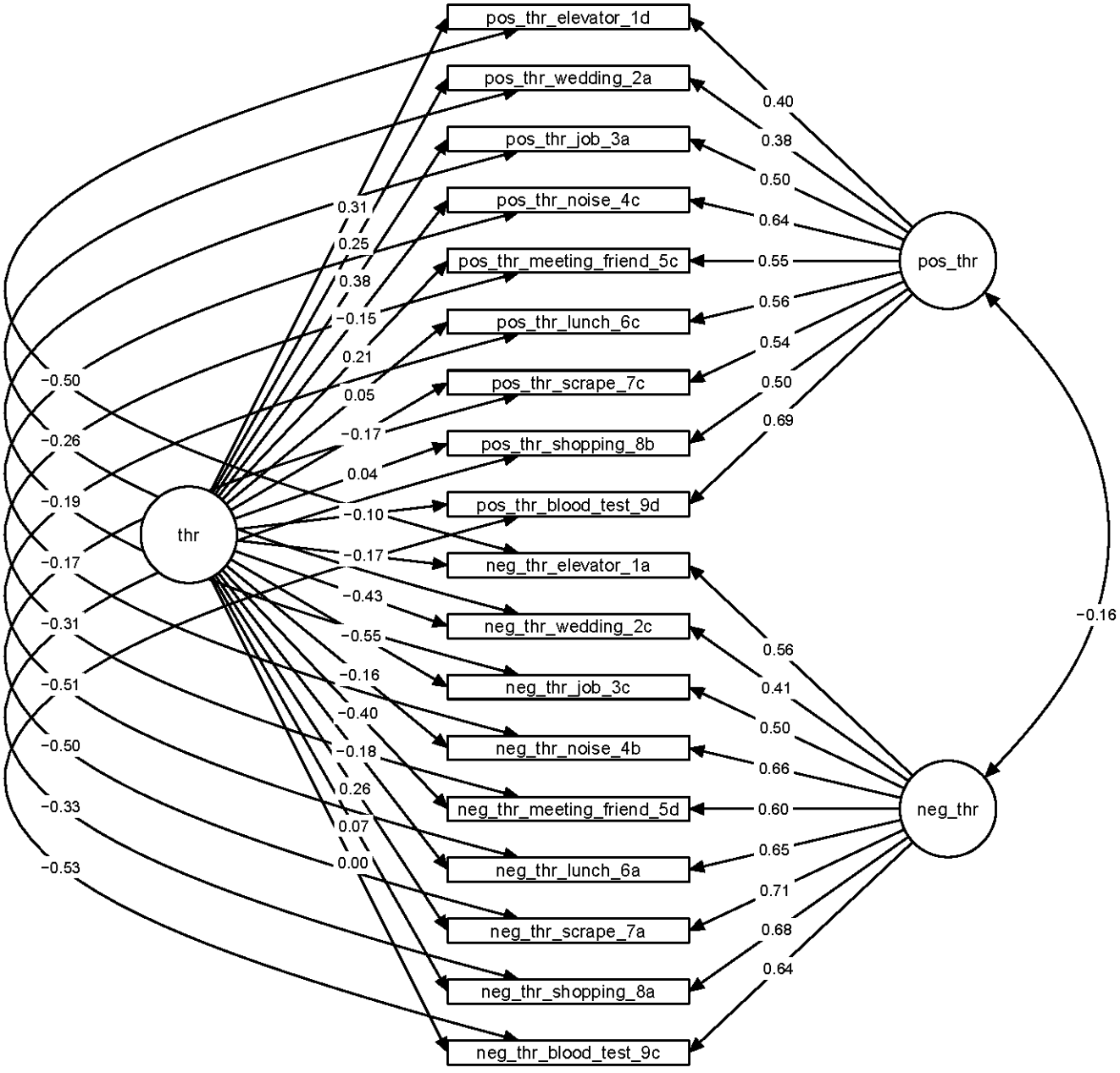
Model 12: CFA Model With 1 Factor (Threat) and Correlated Errors per Scenario, Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA13

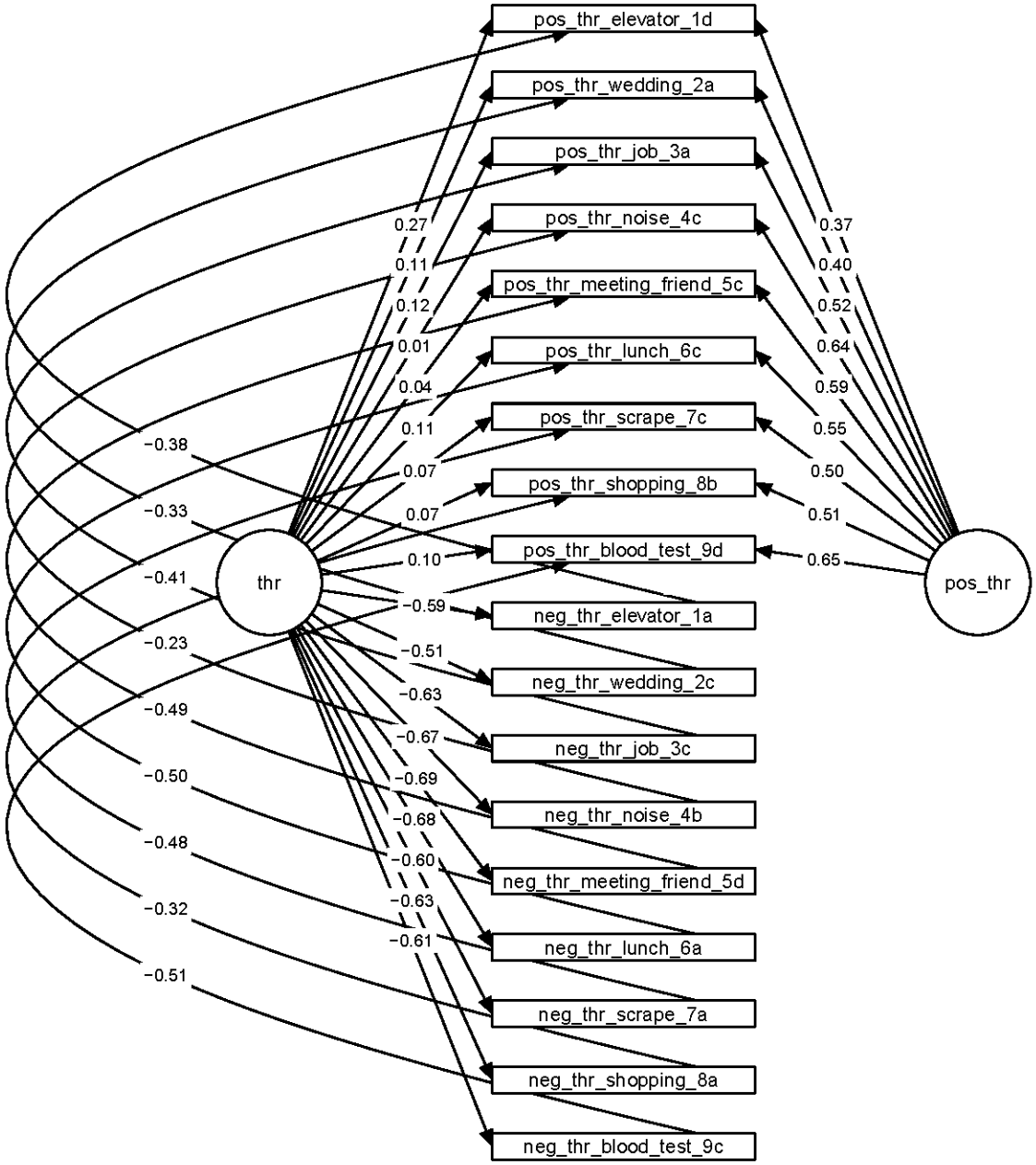
Model 13: CFA Model With 1 Factor (Threat), 2 Correlated Method Factors (Positive, Negative), and Correlated Errors per Scenario, Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA14

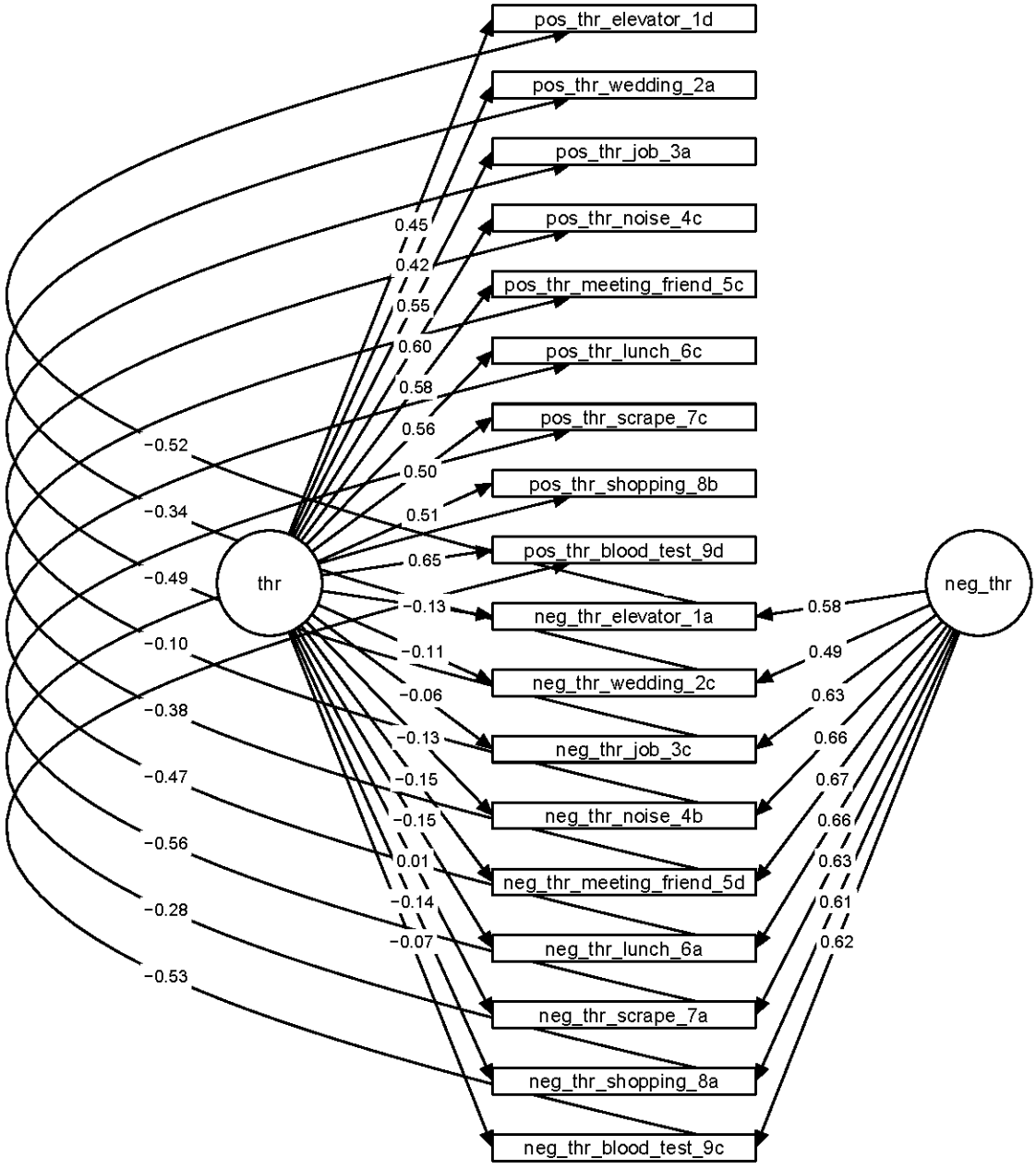
Model 14: CFA Model With 1 Factor (Threat), 1 Method Factor (Positive), and Correlated Errors per Scenario, Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA15

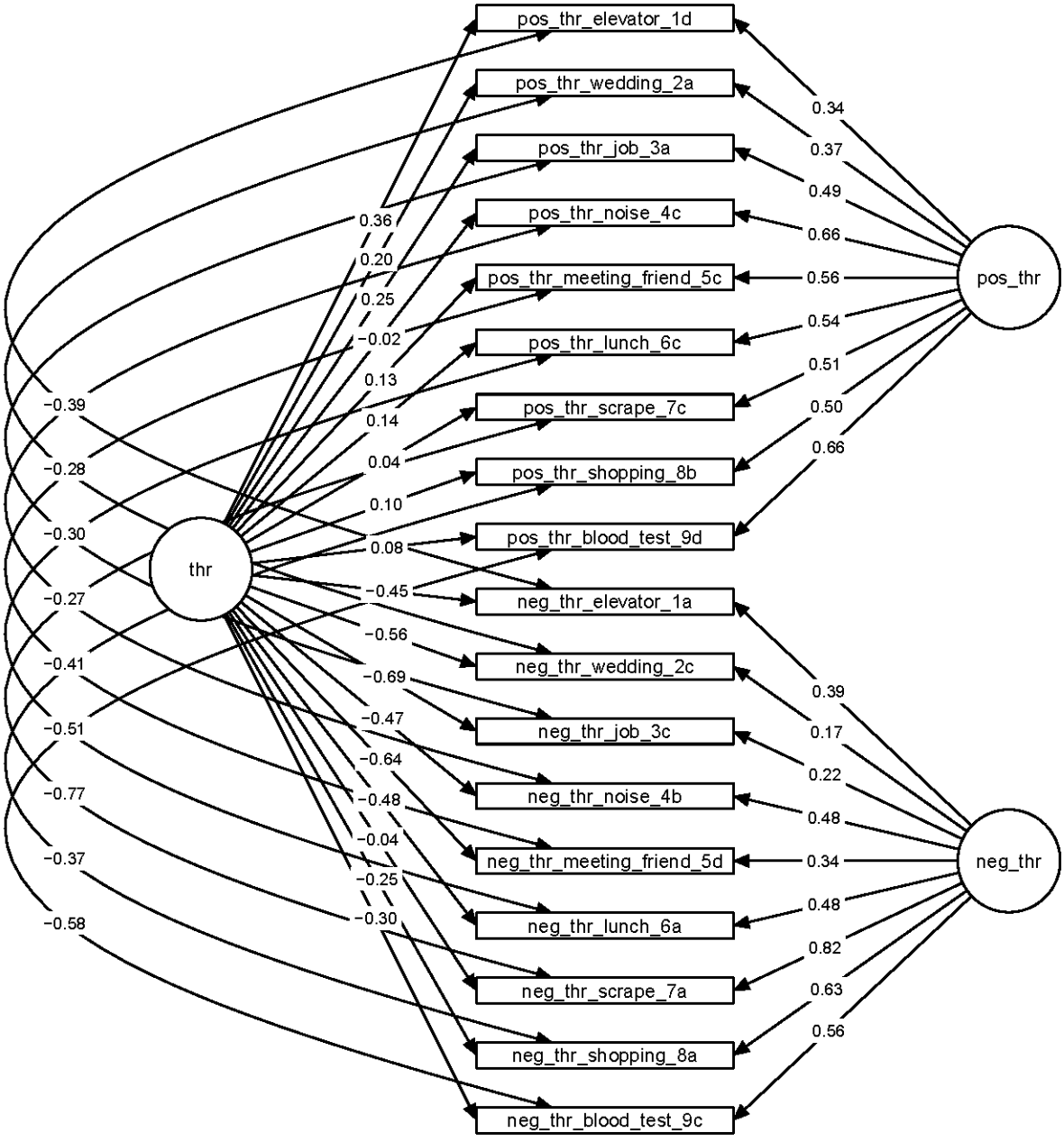
Model 15: CFA Model With 1 Factor (Threat), 1 Method Factor (Negative), and Correlated Errors per Scenario, Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA16

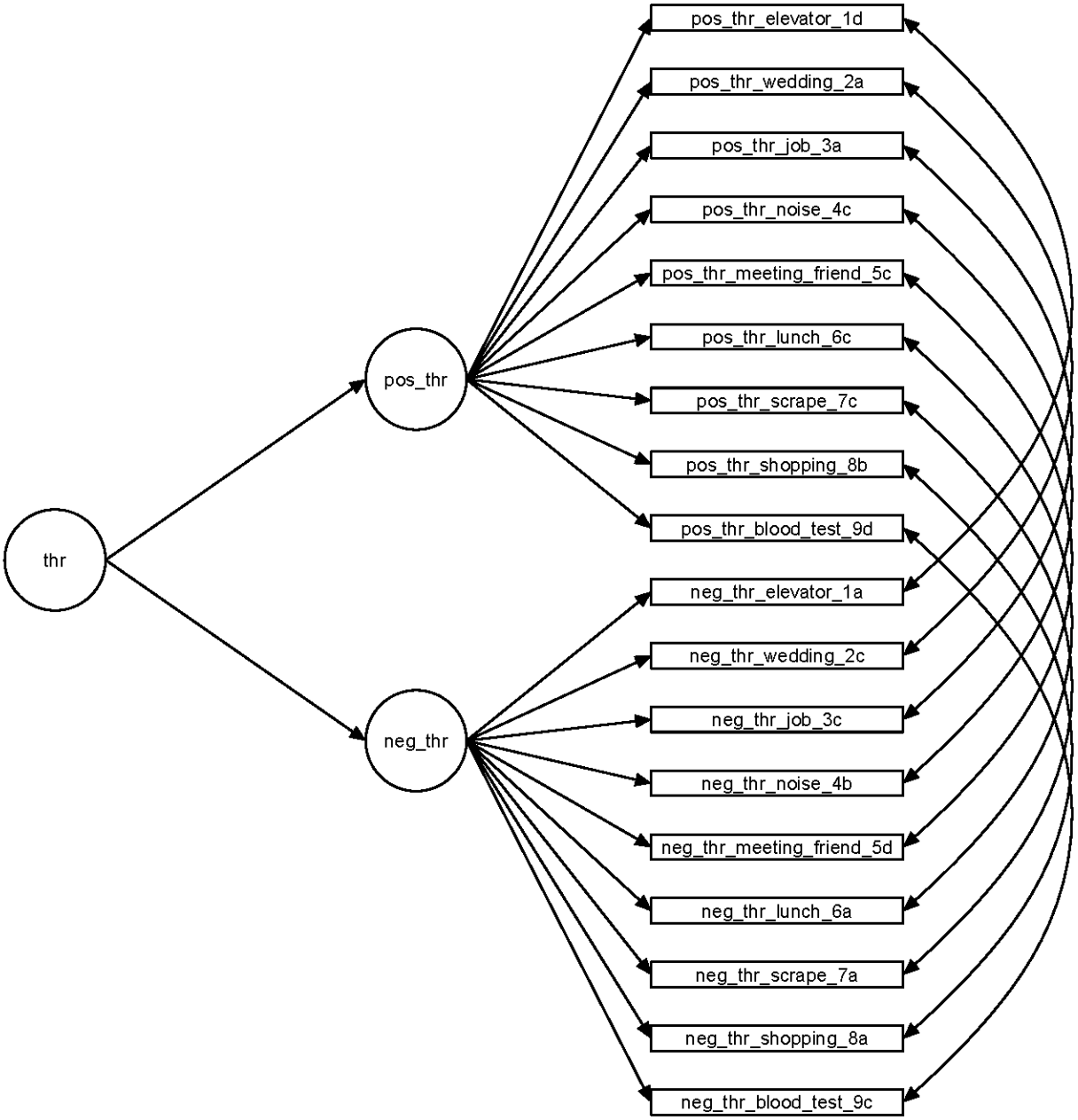
Model 16: CFA Bifactor Model With 1 General Factor (Threat), 2 Specific Factors (Positive, Negative), and Correlated Errors per Scenario, Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA17

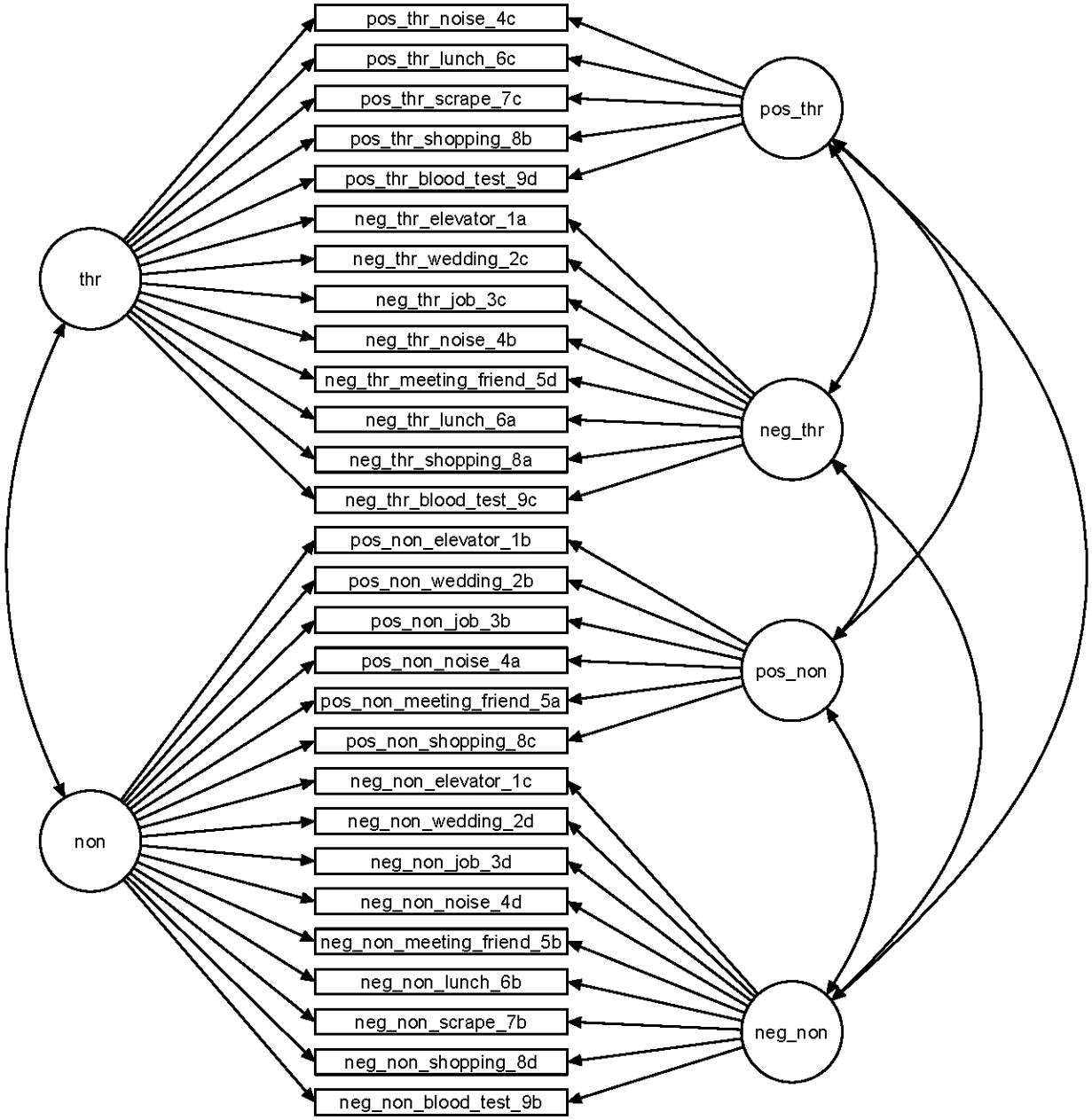
Model 17: CFA Higher-Order Model With 1 Second-Order Factor (Threat), 2 First-Order Factors (Positive, Negative), and Correlated Errors per Scenario, Based on All 18 Threat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA18

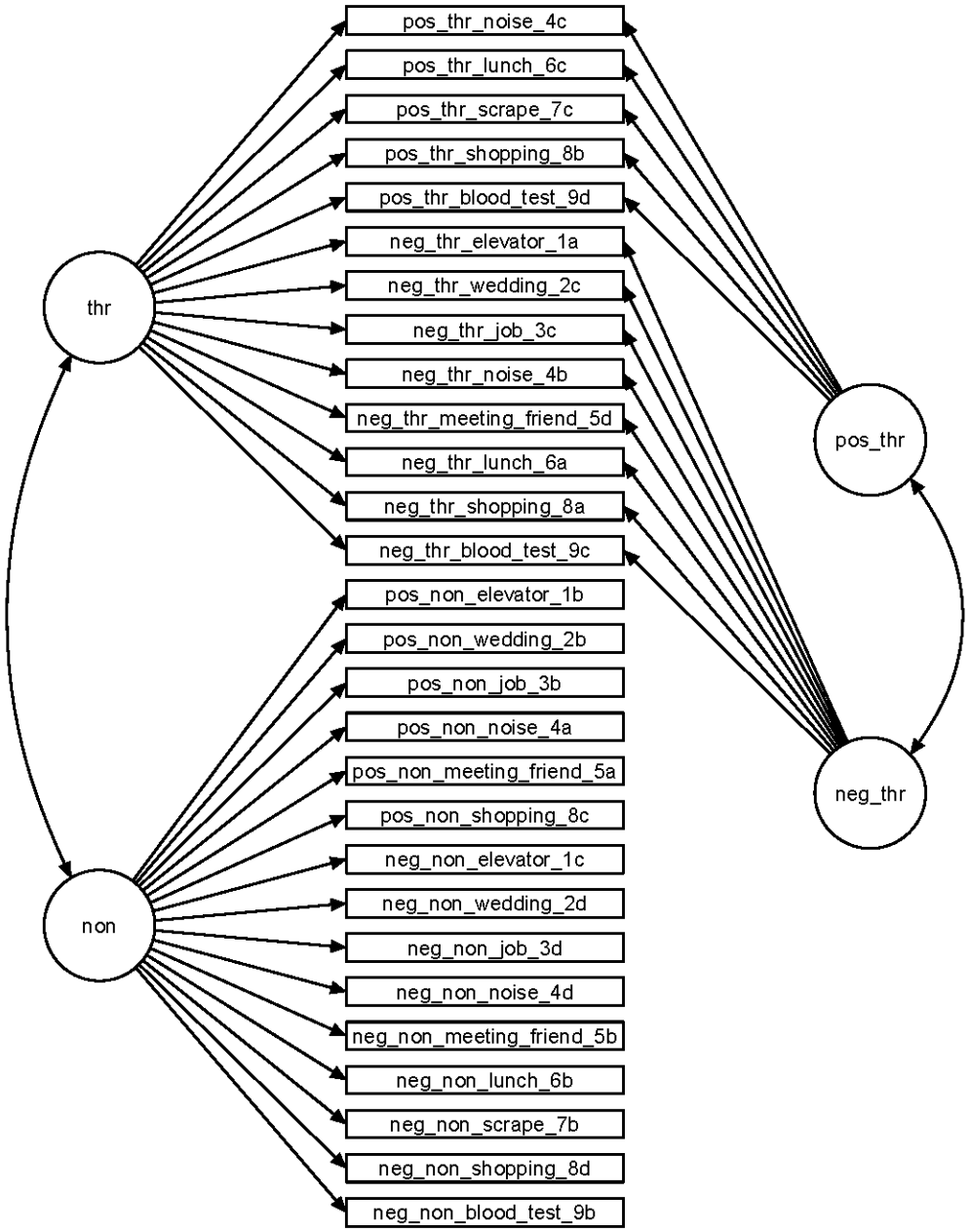
Model 18: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and 4 Correlated Method Factors (1 Positive and 1 Negative per Trait), Based on 28 Threat and Nonthreat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA19

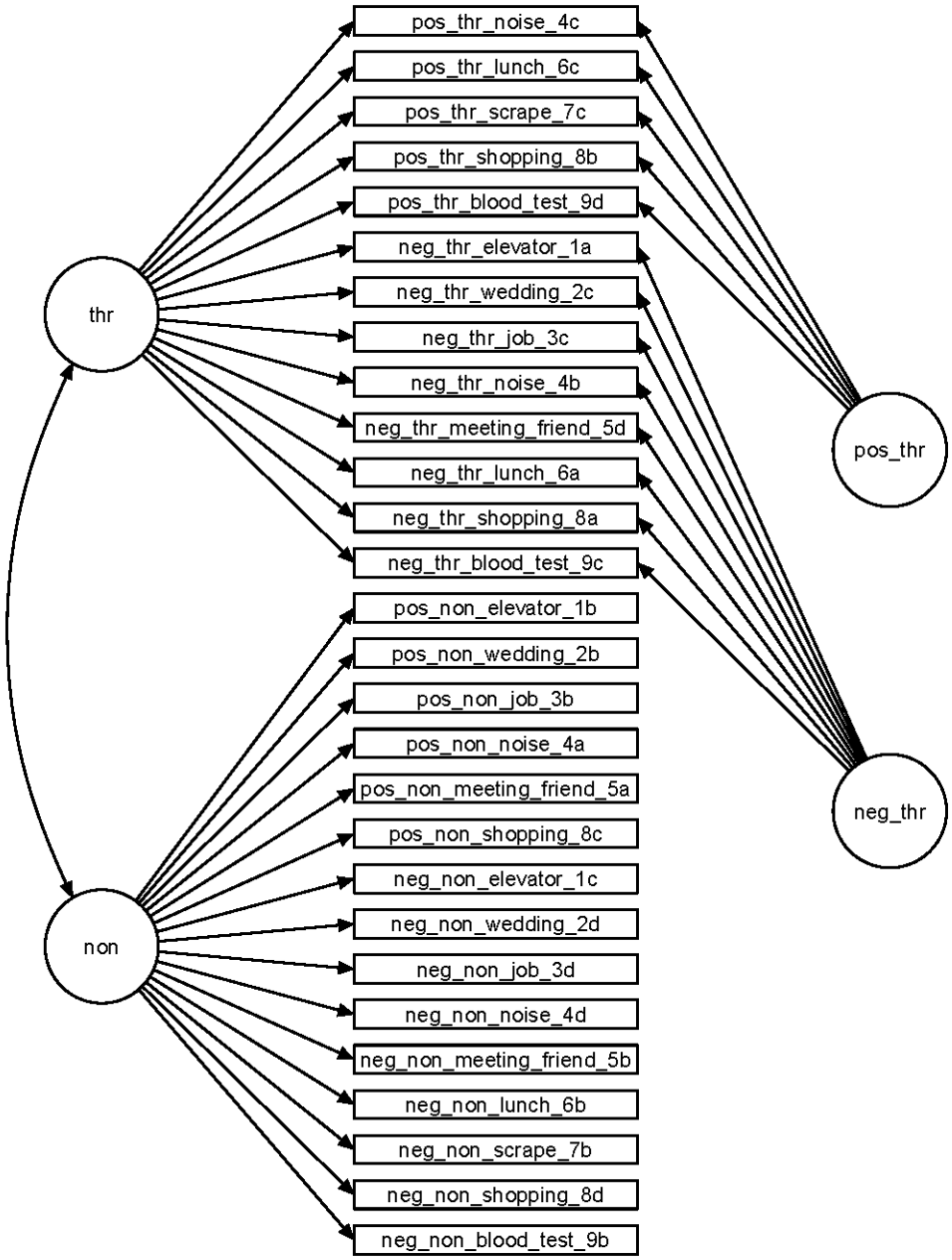
Model 19: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and 2 Correlated Method Factors (Positive and Negative for Threat Trait), Based on 28 Threat and Nonthreat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA20

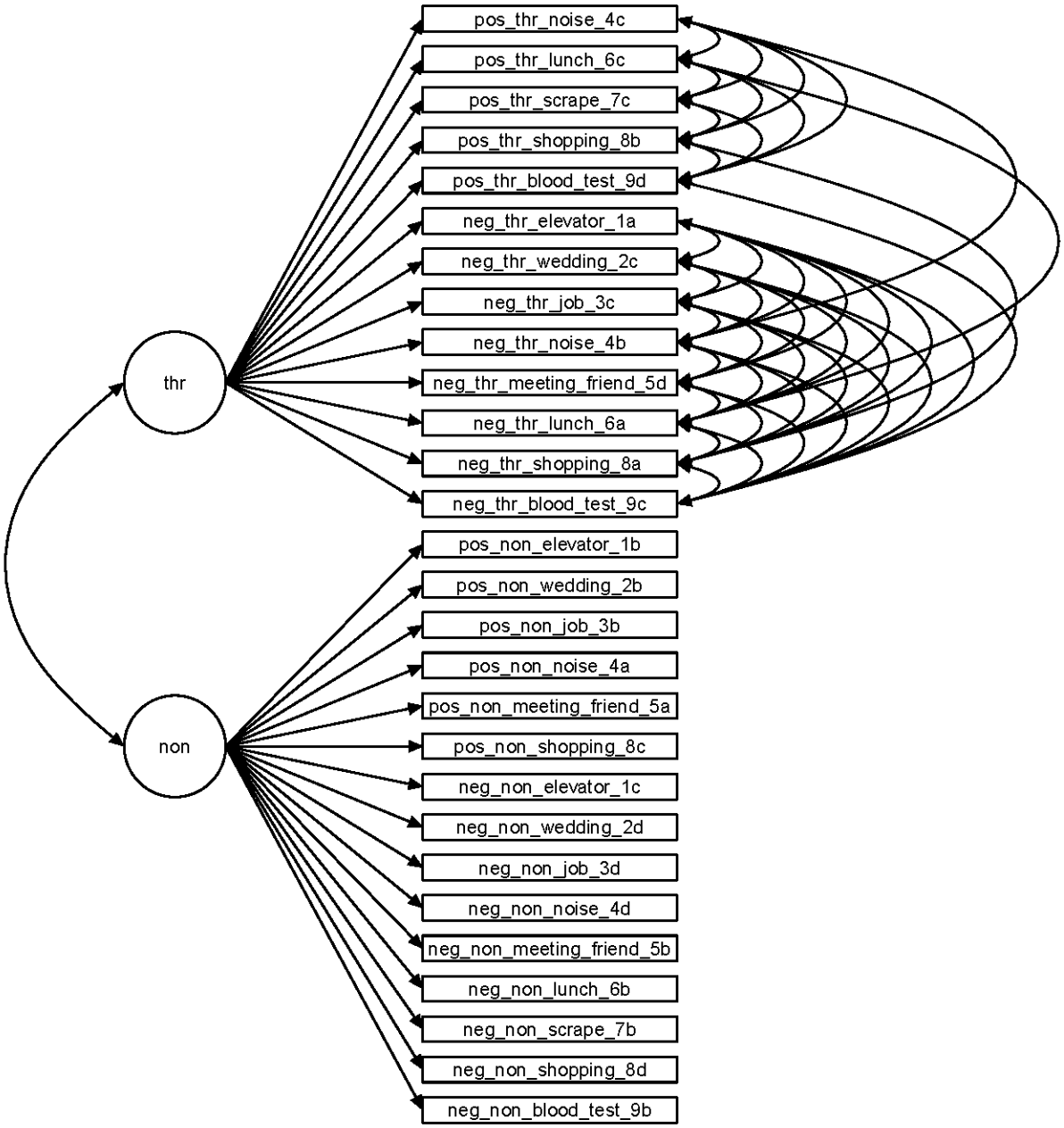
Model 20: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and 2 Orthogonal Method Factors (Positive and Negative for Threat Trait), Based on 28 Threat and Nonthreat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA21

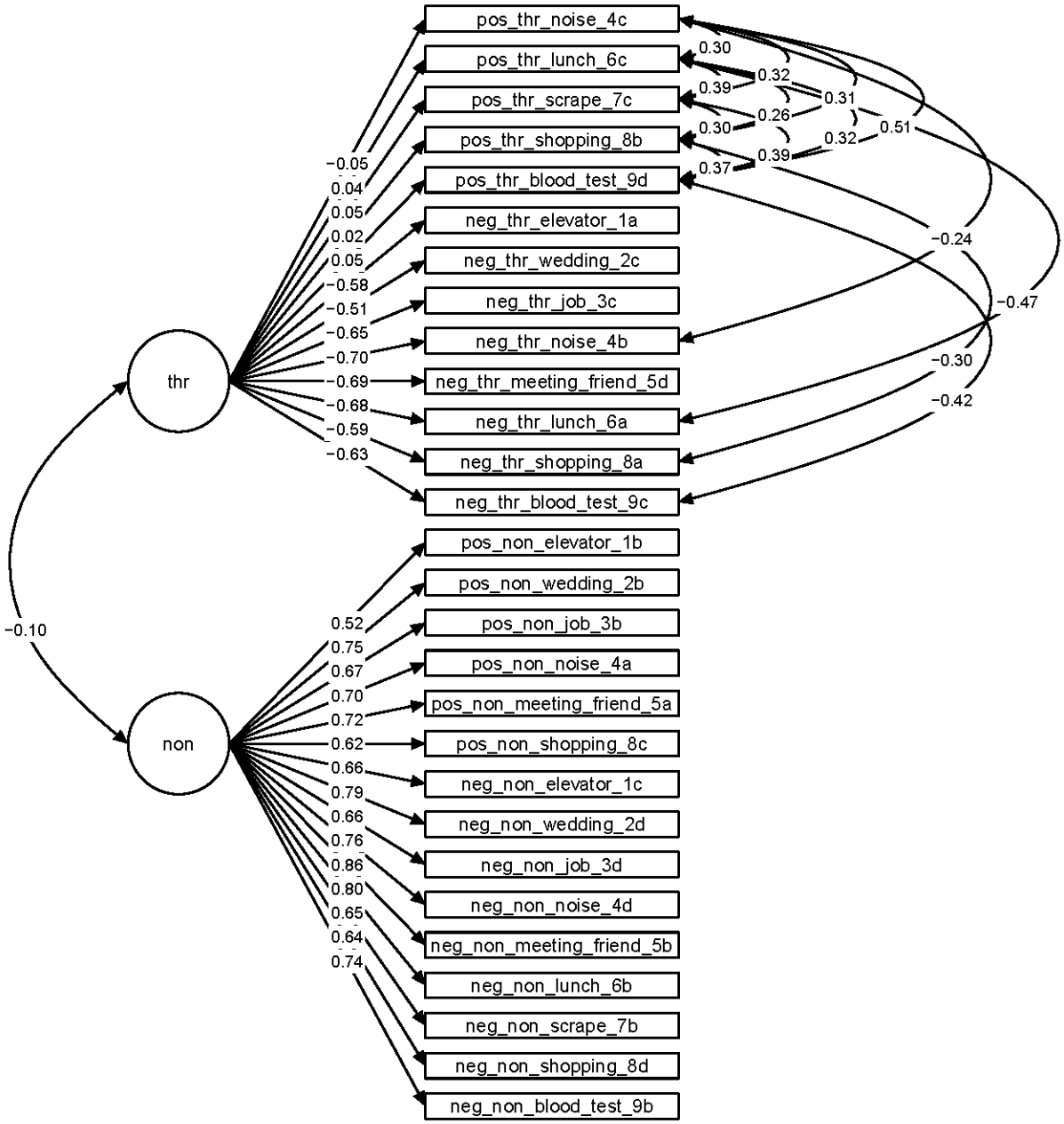
Model 21: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat) and Correlated Errors per Scenario and Valence (Positive, Negative) for Threat Items, Based on 28 Threat and Nonthreat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA22

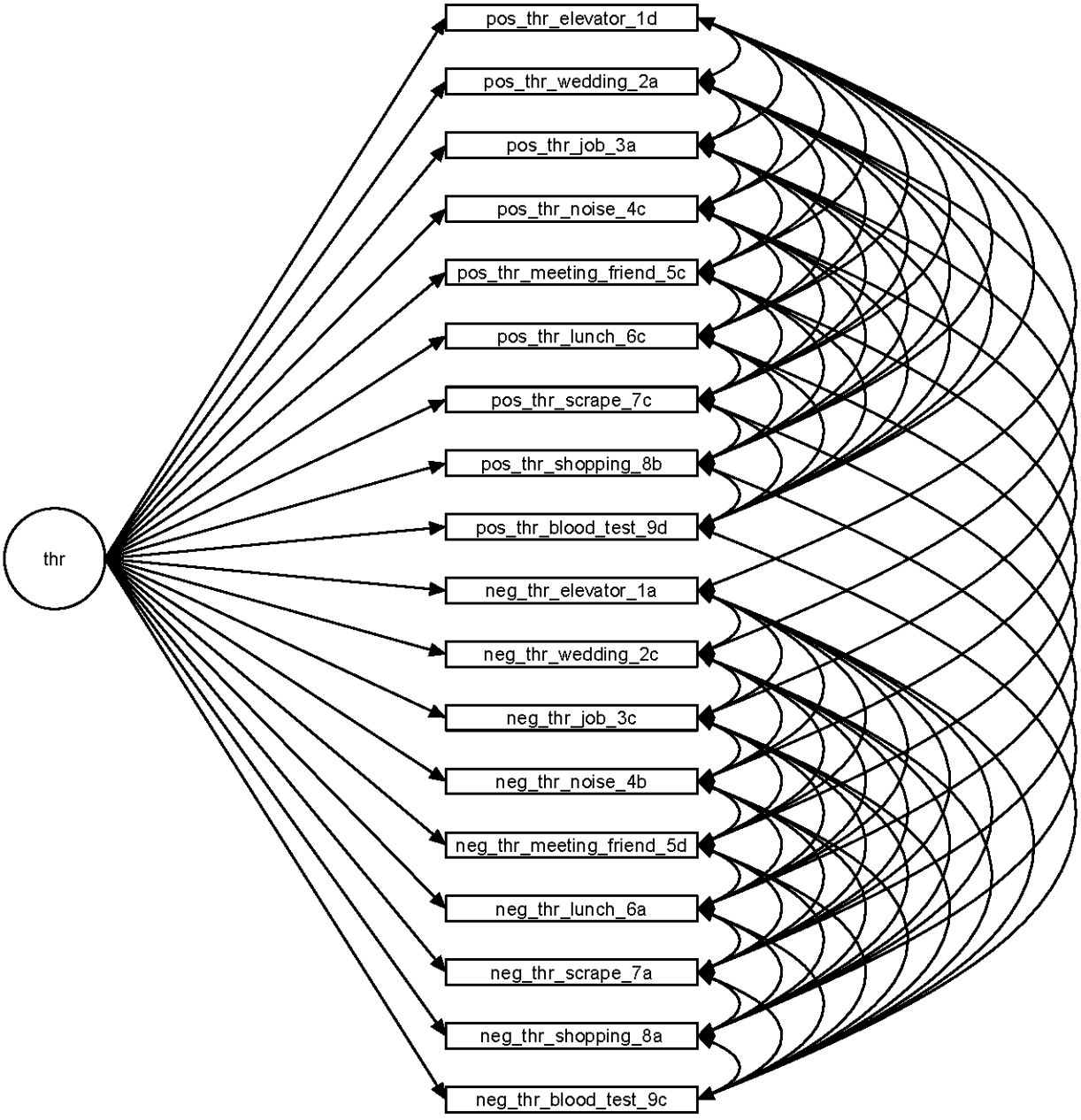
Model 22: CFA Model With 2 Correlated Trait Factors (Threat, Nonthreat), Correlated Errors per Scenario for Threat Items, and Correlated Errors Among Positive Threat Items, Based on 28 Threat and Nonthreat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA23

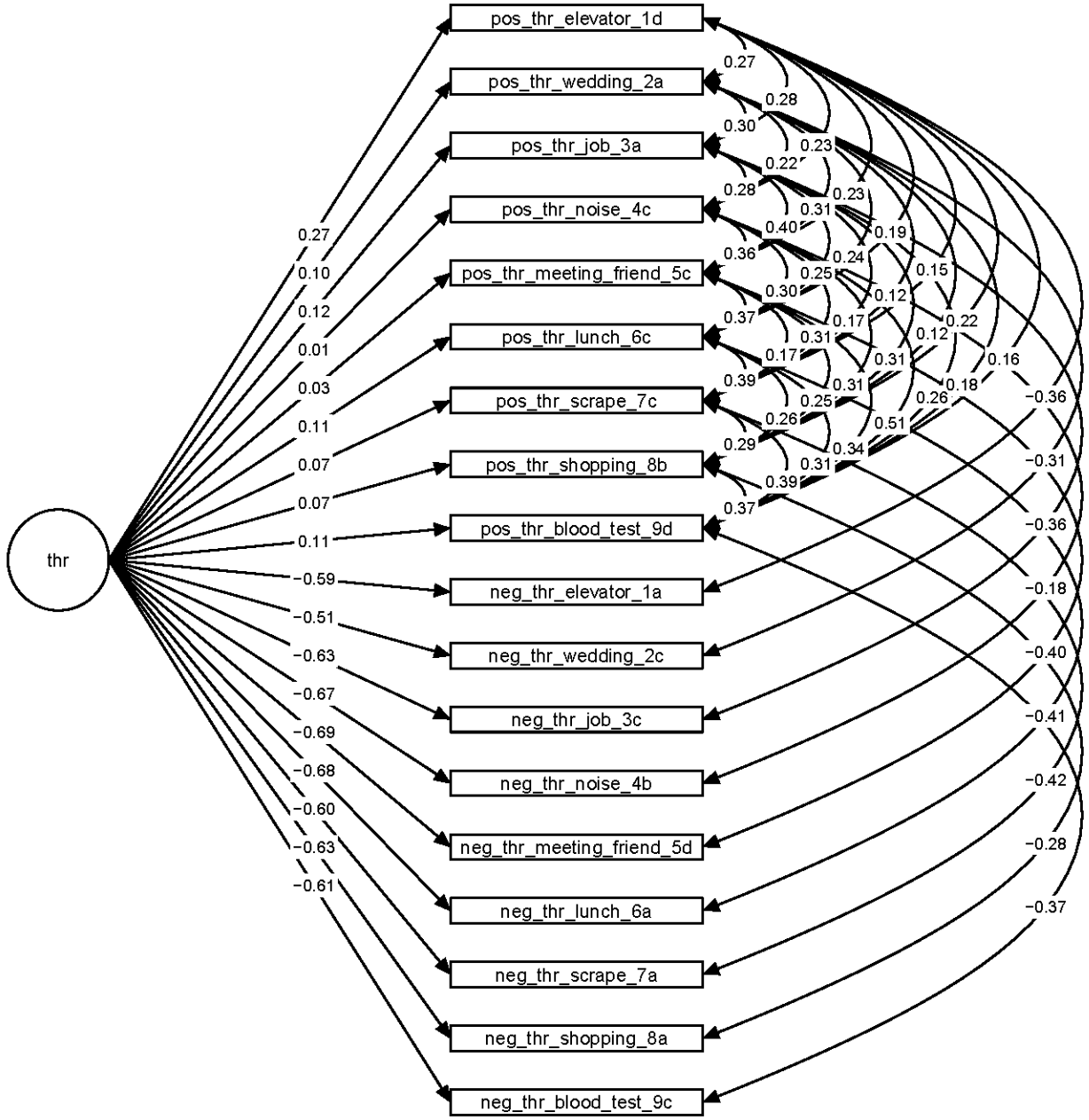
Model 23: CFA Model With 1 Trait Factor (Threat), Correlated Errors per Scenario, and Correlated Errors per Valence (Positive, Negative), Based on All 18 Threat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA24

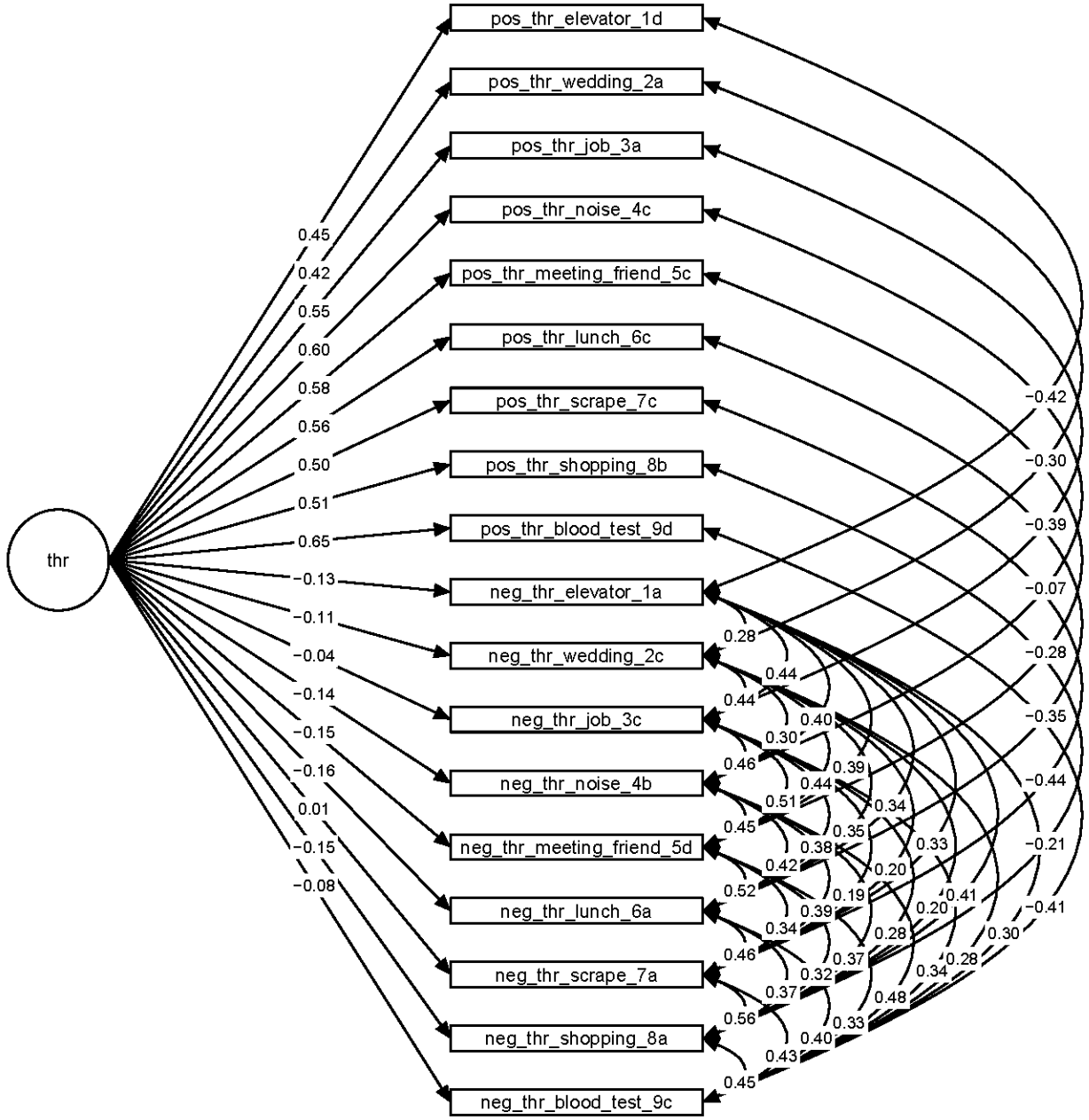
Model 24: CFA Model With 1 Trait Factor (Threat), Correlated Errors per Scenario, and Correlated Errors Among Positive Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA25

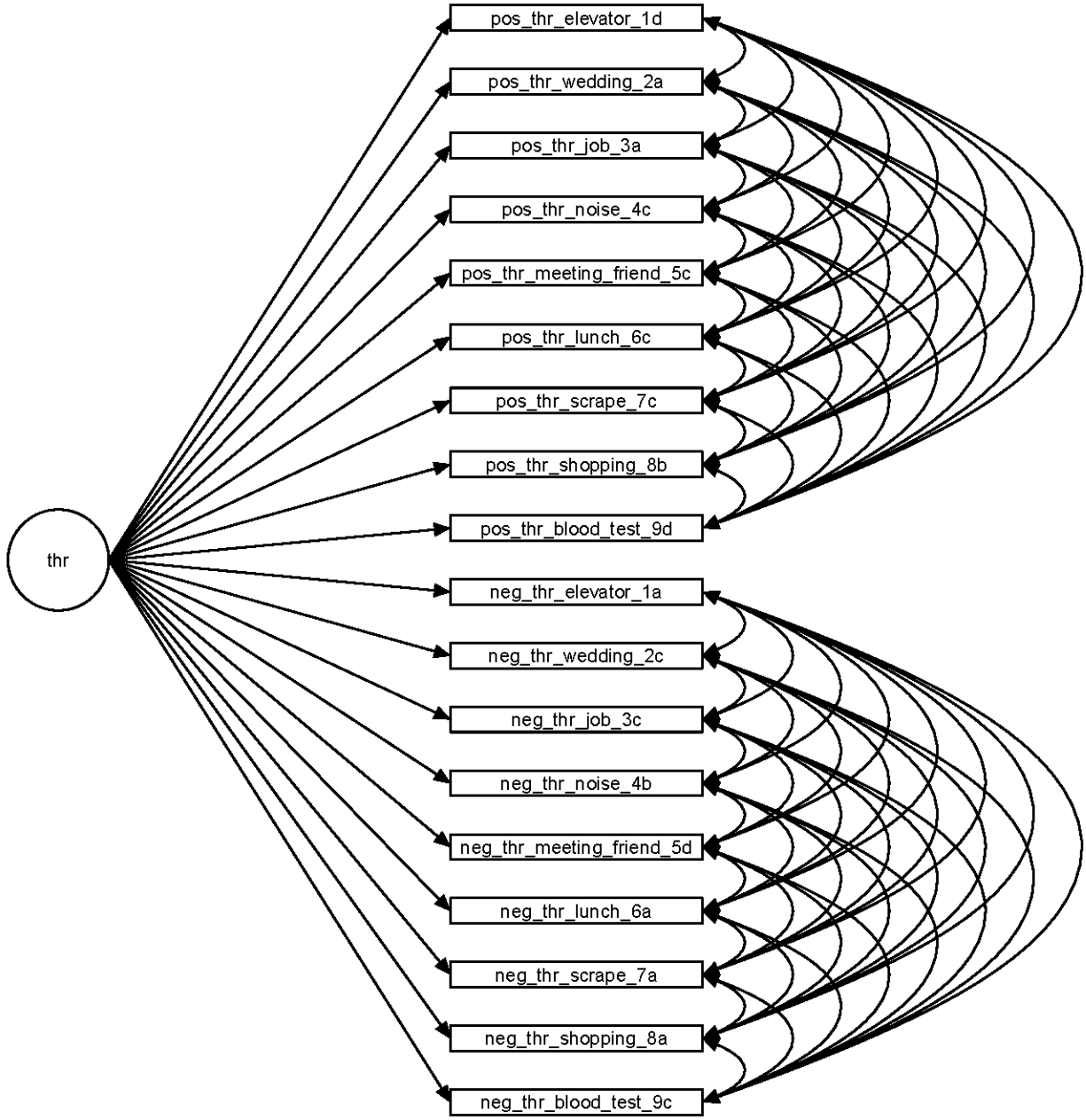
Model 25: CFA Model With 1 Trait Factor (Threat), Correlated Errors per Scenario, and Correlated Errors Among Negative Items, Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).

Figure SA26

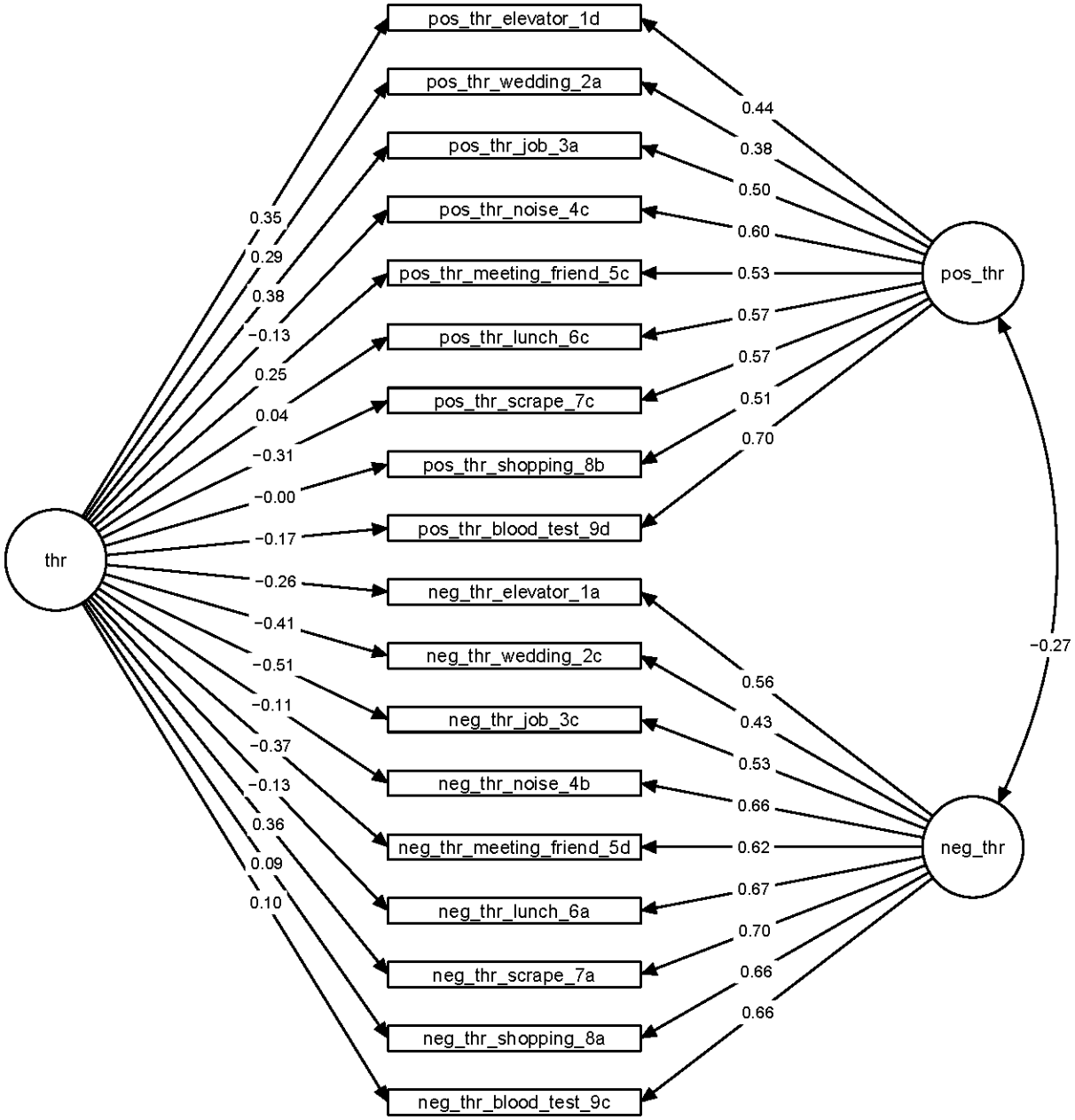
Model 26: CFA Model With 1 Trait Factor (Threat) and Correlated Errors per Valence (Positive, Negative), Based on All 18 Threat Items



Note. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion) but yielded an improper solution. Thus, no parameter estimates are shown.

Figure SA27

Model 27: CFA Model With 1 Trait Factor (Threat) and 2 Correlated Method Factors (Positive, Negative), Based on All 18 Threat Items



Note. Completely standardized estimates are shown. Model was fit to polychoric correlations using diagonally weighted least squares estimation (`WLSMV` estimator with pairwise deletion).